

Package 'salesforcer'

October 14, 2022

Title An Implementation of 'Salesforce' APIs Using Tidy Principles

Version 1.0.1

Date 2022-02-28

Description Functions connecting to the 'Salesforce' Platform APIs (REST, SOAP, Bulk 1.0, Bulk 2.0, Metadata, Reports and Dashboards)
<https://trailhead.salesforce.com/en/content/learn/modules/api_basics/api_basics_overview>.
``API" is an acronym for ``application programming interface". Most all calls from these APIs are supported as they use CSV, XML or JSON data that can be parsed into R data structures. For more details please see the 'Salesforce' API documentation and this package's website
<<https://stevenmmortimer.github.io/salesforcer/>> for more information, documentation, and examples.

License MIT + file LICENSE

URL <https://github.com/StevenMMortimer/salesforcer>

BugReports <https://github.com/StevenMMortimer/salesforcer/issues>

Depends R (>= 3.6.0)

Imports methods (>= 3.6.0), utils (>= 3.6.0), stats (>= 3.6.0), dplyr (>= 1.0.0), purrr (>= 0.3.4), vctrs (>= 0.3.4), tibble (>= 3.0.3), readr (>= 1.3.1), lubridate (>= 1.7.8), anytime (>= 0.3.9), rlang (>= 0.4.7), httr (>= 1.4.1), curl (>= 4.3), data.table (>= 1.13.0), XML (>= 3.99-0.3), xml2 (>= 1.3.2), jsonlite (>= 1.6.1), rlist (>= 0.4.6.1), zip (>= 2.0.4), base64enc (>= 0.1-3), mime (>= 0.9), lifecycle (>= 0.2.0)

Suggests knitr, rmarkdown, testthat, spelling, here, microbenchmark, ggplot2, sessioninfo

VignetteBuilder knitr

ByteCompile true

Encoding UTF-8

Language en-US

RoxygenNote 7.1.2

NeedsCompilation no

Author Steven M. Mortimer [aut, cre],
 Takekatsu Hiramura [ctb],
 Jennifer Bryan [ctb, cph],
 Joanna Zhao [ctb, cph]

Maintainer Steven M. Mortimer <mortimer.steven.m@gmail.com>

Repository CRAN

Date/Publication 2022-03-01 21:50:02 UTC

R topics documented:

collapse_list_with_dupe_names	5
metadata_type_validator	5
parameterized_search_control	205
rforcecom.bulkAction	206
rforcecom.bulkQuery	207
rforcecom.create	208
rforcecom.delete	209
rforcecom.getObjectDescription	210
rforcecom.getServerTimestamp	210
rforcecom.login	211
rforcecom.query	212
rforcecom.retrieve	212
rforcecom.search	213
rforcecom.update	214
rforcecom.upsert	214
sf_abort_job_bulk	215
sf_analytics_notifications_limits	216
sf_analytics_notifications_list	217
sf_analytics_notification_create	217
sf_analytics_notification_delete	218
sf_analytics_notification_describe	219
sf_analytics_notification_update	219
sf_auth	220
sf_batch_details_bulk	222
sf_batch_status_bulk	223
sf_close_job_bulk	224
sf_control	225
sf_convert_lead	228
sf_copy_dashboard	231
sf_copy_report	231
sf_create	233
sf_create_attachment	234
sf_create_batches_bulk	236
sf_create_job_bulk	237
sf_create_metadata	240

sf_create_report	242
sf_delete	243
sf_delete_attachment	245
sf_delete_dashboard	246
sf_delete_job_bulk	247
sf_delete_metadata	247
sf_delete_report	249
sf_delete_report_instance	250
sf_describe_dashboard	251
sf_describe_dashboard_components	252
sf_describe_metadata	252
sf_describe_objects	253
sf_describe_object_fields	254
sf_describe_report	255
sf_describe_report_type	256
sf_download_attachment	257
sf_empty_recycle_bin	259
sf_execute_report	260
sf_filter_dashboard_operators_list	263
sf_filter_dashboard_options_analysis	264
sf_find_duplicates	265
sf_find_duplicates_by_id	266
sf_get_all_jobs_bulk	267
sf_get_all_query_jobs_bulk	269
sf_get_dashboard_data	270
sf_get_dashboard_results	271
sf_get_dashboard_status	272
sf_get_deleted	272
sf_get_job_bulk	273
sf_get_job_records_bulk	274
sf_get_report_instance_results	276
sf_get_updated	278
sf_job_batches_bulk	279
sf_list_api_limits	280
sf_list_dashboards	281
sf_list_metadata	282
sf_list_objects	283
sf_list_reports	283
sf_list_report_fields	284
sf_list_report_filter_operators	286
sf_list_report_instances	287
sf_list_report_types	288
sf_list_resources	289
sf_list_rest_api_versions	289
sf_merge	290
sf_query	291
sf_query_bulk_v1	294
sf_query_bulk_v2	295

<code>sf_query_report</code>	297
<code>sf_query_result_bulk</code>	299
<code>sf_query_result_bulk_v1</code>	300
<code>sf_query_result_bulk_v2</code>	302
<code>sf_read_metadata</code>	303
<code>sf_refresh_dashboard</code>	304
<code>sf_rename_metadata</code>	305
<code>sf_report_folders_list</code>	306
<code>sf_report_folder_children</code>	306
<code>sf_report_folder_create</code>	307
<code>sf_report_folder_delete</code>	307
<code>sf_report_folder_describe</code>	308
<code>sf_report_folder_shares_add</code>	308
<code>sf_report_folder_shares_list</code>	309
<code>sf_report_folder_shares_update</code>	309
<code>sf_report_folder_share_delete</code>	310
<code>sf_report_folder_share_describe</code>	310
<code>sf_report_folder_share_recipients</code>	311
<code>sf_report_folder_share_update</code>	312
<code>sf_report_folder_update</code>	312
<code>sf_reset_password</code>	313
<code>sf_retrieve</code>	314
<code>sf_retrieve_metadata</code>	315
<code>sf_run_bulk_operation</code>	316
<code>sf_run_bulk_query</code>	319
<code>sf_run_report</code>	321
<code>sf_search</code>	325
<code>sf_server_timestamp</code>	326
<code>sf_set_dashboard_sticky_filter</code>	327
<code>sf_set_password</code>	328
<code>sf_submit_query_bulk</code>	328
<code>sf_undelete</code>	330
<code>sf_update</code>	331
<code>sf_update_attachment</code>	333
<code>sf_update_dashboard</code>	334
<code>sf_update_metadata</code>	335
<code>sf_update_report</code>	336
<code>sf_upload_complete_bulk</code>	338
<code>sf_upsert</code>	339
<code>sf_upsert_metadata</code>	340
<code>sf_user_info</code>	342
<code>valid_metadata_list</code>	343

collapse_list_with_dupe_names

Collapse Elements in List with Same Name

Description

This function looks for instances of elements in a list that have the same name and then combine them all into a single comma separated character string (referenceTo) or tbl_df (picklistValues).

Usage

```
collapse_list_with_dupe_names(x)
```

Arguments

x list; a list, typically returned from the API that we would parse through

Value

A list containing one row per field for the requested object.

Note

The tibble only contains the fields that the user can view, as defined by the user's field-level security settings.

Examples

```
## Not run:
obj_dat <- sf_describe_objects(object_names = "Contact", api_type = "SOAP")[[1]]
obj_fields_list <- obj_dat[names(obj_dat) == "fields"] %>%
  map(collapse_list_with_dupe_names)

## End(Not run)
```

metadata_type_validator

Metadata Data Type Validator

Description

A function to create a variety of objects that are part of the Metadata API service Below is a list of objects and their required components to be created with this function:

Usage

```
metadata_type_validator(obj_type, obj_data)
```

Arguments

obj_type	a string from one of the object types described above
obj_data	a list of lists or a data.frame with the required inputs to create the the obj_type specified.

Details**AccessMapping**

accessLevel a character

object a character

objectField a character

userField a character

AccountSettings

fullName a character (inherited from Metadata)

enableAccountOwnerReport a character either 'true' or 'false'

enableAccountTeams a character either 'true' or 'false'

showViewHierarchyLink a character either 'true' or 'false'

AccountSharingRuleSettings

caseAccessLevel a character

contactAccessLevel a character

opportunityAccessLevel a character

ActionLinkGroupTemplate

fullName a character (inherited from Metadata)

actionLinkTemplates a ActionLinkTemplate

category a PlatformActionGroupCategory - which is a character taking one of the following values:

- Primary
- Overflow

executionsAllowed a ActionLinkExecutionsAllowed - which is a character taking one of the following values:

- Once
- OncePerUser
- Unlimited

hoursUntilExpiration an integer

isPublished a character either 'true' or 'false'

name a character

ActionLinkTemplate

actionUrl a character

headers a character

isConfirmationRequired a character either 'true' or 'false'

isGroupDefault a character either 'true' or 'false'

label a character

labelKey a character

linkType a ActionLinkType - which is a character taking one of the following values:

- API
- APIAsync
- Download
- UI

method a ActionLinkHttpMethod - which is a character taking one of the following values:

- HttpDelete
- HttpHeaders
- HttpGet
- HttpPatch
- HttpPost
- HttpPut

position an integer

requestBody a character

userAlias a character

userVisibility a ActionLinkUserVisibility - which is a character taking one of the following values:

- Creator
- Everyone
- EveryoneButCreator
- Manager
- CustomUser
- CustomExcludedUser

ActionOverride

actionName a character

comment a character

content a character

formFactor a FormFactor - which is a character taking one of the following values:

- Small
- Medium
- Large

skipRecordTypeSelect a character either 'true' or 'false'

type a ActionOverrideType - which is a character taking one of the following values:

- Default
- Standard
- Scontrol
- Visualforce
- Flexipage
- LightningComponent

ActivitiesSettings

fullName a character (inherited from Metadata)

allowUsersToRelateMultipleContactsToTasksAndEvents a character either 'true' or 'false'

autoRelateEventAttendees a character either 'true' or 'false'

enableActivityReminders a character either 'true' or 'false'

enableClickCreateEvents a character either 'true' or 'false'

enableDragAndDropScheduling a character either 'true' or 'false'

enableEmailTracking a character either 'true' or 'false'

enableGroupTasks a character either 'true' or 'false'

enableListViewScheduling a character either 'true' or 'false'

enableLogNote a character either 'true' or 'false'

enableMultidayEvents a character either 'true' or 'false'

enableRecurringEvents a character either 'true' or 'false'

enableRecurringTasks a character either 'true' or 'false'

enableSidebarCalendarShortcut a character either 'true' or 'false'

enableSimpleTaskCreateUI a character either 'true' or 'false'

enableUNSTaskDelegatedToNotifications a character either 'true' or 'false'

meetingRequestsLogo a character

showCustomLogoMeetingRequests a character either 'true' or 'false'

showEventDetailsMultiUserCalendar a character either 'true' or 'false'

showHomePageHoverLinksForEvents a character either 'true' or 'false'

showMyTasksHoverLinks a character either 'true' or 'false'

AddressSettings

fullName a character (inherited from Metadata)

countriesAndStates a CountriesAndStates

AdjustmentsSettings

enableAdjustments a character either 'true' or 'false'

enableOwnerAdjustments a character either 'true' or 'false'

AgentConfigAssignments

profiles a AgentConfigProfileAssignments

users a AgentConfigUserAssignments

AgentConfigButtons

button a character

AgentConfigProfileAssignments

profile a character

AgentConfigSkills

skill a character

AgentConfigUserAssignments

user a character

AnalyticsCloudComponentLayoutItem

assetType a character

devName a character

error a character

filter a character

height an integer

hideOnError a character either 'true' or 'false'

showHeader a character either 'true' or 'false'

showSharing a character either 'true' or 'false'

showTitle a character either 'true' or 'false'

width a character

AnalyticSnapshot

fullName a character (inherited from Metadata)

description a character

groupColumn a character

mappings a AnalyticSnapshotMapping

name a character

runningUser a character

sourceReport a character

targetObject a character

AnalyticSnapshotMapping

aggregateType a ReportSummaryType - which is a character taking one of the following values:

- Sum
- Average
- Maximum
- Minimum
- None

sourceField a character

sourceType a ReportJobSourceTypes - which is a character taking one of the following values:

- tabular
- summary
- snapshot

targetField a character

ApexClass

content a character formed using [base64encode](#) (inherited from MetadataWithContent)

apiVersion a numeric

packageVersions a PackageVersion

status a ApexCodeUnitStatus - which is a character taking one of the following values:

- Inactive
- Active
- Deleted

ApexComponent

content a character formed using [base64encode](#) (inherited from MetadataWithContent)

apiVersion a numeric

description a character

label a character

packageVersions a PackageVersion

ApexPage

content a character formed using [base64encode](#) (inherited from MetadataWithContent)

apiVersion a numeric

availableInTouch a character either 'true' or 'false'

confirmationTokenRequired a character either 'true' or 'false'

description a character

label a character

packageVersions a PackageVersion

ApexTestSuite

fullName a character (inherited from Metadata)

testClassName a character

ApexTrigger

content a character formed using [base64encode](#) (inherited from MetadataWithContent)

apiVersion a numeric

packageVersions a PackageVersion

status a ApexCodeUnitStatus - which is a character taking one of the following values:

- Inactive
- Active
- Deleted

AppActionOverride

actionName a character (inherited from ActionOverride)

comment a character (inherited from ActionOverride)

content a character (inherited from ActionOverride)

formFactor a FormFactor (inherited from ActionOverride)

skipRecordTypeSelect a character either 'true' or 'false' (inherited from ActionOverride)

type a ActionOverrideType (inherited from ActionOverride)

pageOrSubjectType a character

AppBrand

footerColor a character

headerColor a character

logo a character

logoVersion an integer

shouldOverrideOrgTheme a character either 'true' or 'false'

AppComponentList

alignment a character

components a character

AppMenu

fullName a character (inherited from Metadata)

appMenuItems a AppMenuItem

AppMenuItem

name a character

type a character

AppPreferences

enableCustomizeMyTabs a character either 'true' or 'false'
enableKeyboardShortcuts a character either 'true' or 'false'
enableListViewHover a character either 'true' or 'false'
enableListViewReskin a character either 'true' or 'false'
enableMultiMonitorComponents a character either 'true' or 'false'
enablePinTabs a character either 'true' or 'false'
enableTabHover a character either 'true' or 'false'
enableTabLimits a character either 'true' or 'false'
saveUserSessions a character either 'true' or 'false'

AppProfileActionOverride

actionName a character (inherited from ProfileActionOverride)
content a character (inherited from ProfileActionOverride)
formFactor a FormFactor (inherited from ProfileActionOverride)
pageOrSubjectType a character (inherited from ProfileActionOverride)
recordType a character (inherited from ProfileActionOverride)
type a ActionOverrideType (inherited from ProfileActionOverride)
profile a character

ApprovalAction

action a WorkflowActionReference

ApprovalEntryCriteria

booleanFilter a character
criterialItems a FilterItem
formula a character

ApprovalPageField

field a character

ApprovalProcess

fullName a character (inherited from Metadata)
active a character either 'true' or 'false'
allowRecall a character either 'true' or 'false'
allowedSubmitters a ApprovalSubmitter
approvalPageFields a ApprovalPageField
approvalStep a ApprovalStep

description a character
emailTemplate a character
enableMobileDeviceAccess a character either 'true' or 'false'
entryCriteria a ApprovalEntryCriteria
finalApprovalActions a ApprovalAction
finalApprovalRecordLock a character either 'true' or 'false'
finalRejectionActions a ApprovalAction
finalRejectionRecordLock a character either 'true' or 'false'
initialSubmissionActions a ApprovalAction
label a character
nextAutomatedApprover a NextAutomatedApprover
postTemplate a character
recallActions a ApprovalAction
recordEditability a RecordEditabilityType - which is a character taking one of the following values:

- AdminOnly
- AdminOrCurrentApprover

showApprovalHistory a character either 'true' or 'false'

ApprovalStep

allowDelegate a character either 'true' or 'false'
approvalActions a ApprovalAction
assignedApprover a ApprovalStepApprover
description a character
entryCriteria a ApprovalEntryCriteria
ifCriteriaNotMet a StepCriteriaNotMetType - which is a character taking one of the following values:

- ApproveRecord
- RejectRecord
- GotoNextStep

label a character

name a character

rejectBehavior a ApprovalStepRejectBehavior

rejectionActions a ApprovalAction

ApprovalStepApprover

approver a Approver

whenMultipleApprovers a RoutingType - which is a character taking one of the following values:

- Unanimous
- FirstResponse

ApprovalStepRejectBehavior

type a StepRejectBehaviorType - which is a character taking one of the following values:

- RejectRequest
- BackToPrevious

ApprovalSubmitter

submitter a character

type a ProcessSubmitterType - which is a character taking one of the following values:

- group
- role
- user
- roleSubordinates
- roleSubordinatesInternal
- owner
- creator
- partnerUser
- customerPortalUser
- portalRole
- portalRoleSubordinates
- allInternalUsers

Approver

name a character

type a NextOwnerType - which is a character taking one of the following values:

- adhoc
- user
- userHierarchyField
- relatedUserField
- queue

AppWorkspaceConfig

mappings a WorkspaceMapping

ArticleTypeChannelDisplay

articleTypeTemplates a ArticleTypeTemplate

ArticleTypeTemplate

channel a Channel - which is a character taking one of the following values:

- AllChannels
- App
- Pkb
- Csp
- Prm

page a character

template a Template - which is a character taking one of the following values:

- Page
- Tab
- Toc

AssignmentRule

fullName a character (inherited from Metadata)

active a character either 'true' or 'false'

ruleEntry a RuleEntry

AssignmentRules

fullName a character (inherited from Metadata)

assignmentRule a AssignmentRule

AssistantRecommendationType

fullName a character (inherited from Metadata)

description a character

masterLabel a character

platformActionlist a PlatformActionList

subjectType a character

title a character

Attachment

content a character formed using [base64encode](#)

name a character

AuraDefinitionBundle

fullName a character (inherited from Metadata)

SVGContent a character formed using [base64encode](#)

apiVersion a numeric

controllerContent a character formed using [base64encode](#)

description a character

designContent a character formed using [base64encode](#)

documentationContent a character formed using [base64encode](#)

helperContent a character formed using [base64encode](#)

markup a character formed using [base64encode](#)

modelContent a character formed using [base64encode](#)

packageVersions a PackageVersion

rendererContent a character formed using [base64encode](#)

styleContent a character formed using [base64encode](#)

testsuiteContent a character formed using [base64encode](#)

type a AuraBundleType - which is a character taking one of the following values:

- Application
- Component
- Event
- Interface
- Tokens

AuthProvider

fullName a character (inherited from Metadata)

authorizeUrl a character

consumerKey a character

consumerSecret a character

customMetadataTypeRecord a character

defaultScopes a character

errorUrl a character

executionUser a character

friendlyName a character

iconUrl a character

idTokenIssuer a character

includeOrgIdInIdentifier a character either 'true' or 'false'

logoutUrl a character

plugin a character

portal a character

providerType a AuthProviderType - which is a character taking one of the following values:

- Facebook
- Janrain
- Salesforce
- OpenIdConnect
- MicrosoftACS
- LinkedIn
- Twitter

- Google
- GitHub
- Custom

registrationHandler a character

sendAccessTokenInHeader a character either 'true' or 'false'

sendClientCredentialsInHeader a character either 'true' or 'false'

tokenUrl a character

userInfoUrl a character

AutoResponseRule

fullName a character (inherited from Metadata)

active a character either 'true' or 'false'

ruleEntry a RuleEntry

AutoResponseRules

fullName a character (inherited from Metadata)

autoResponseRule a AutoResponseRule

BrandingSet

fullName a character (inherited from Metadata)

brandingSetProperty a BrandingSetProperty

description a character

masterLabel a character

type a character

BrandingSetProperty

propertyName a character

propertyValue a character

BusinessHoursEntry

fullName a character (inherited from Metadata)

active a character either 'true' or 'false'

default a character either 'true' or 'false'

fridayEndTime a character formatted as 'hh:mm:ssZ'

fridayStartTime a character formatted as 'hh:mm:ssZ'

mondayEndTime a character formatted as 'hh:mm:ssZ'

mondayStartTime a character formatted as 'hh:mm:ssZ'

name a character

saturdayEndTime a character formatted as 'hh:mm:ssZ'

saturdayStartTime a character formatted as 'hh:mm:ssZ'
sundayEndTime a character formatted as 'hh:mm:ssZ'
sundayStartTime a character formatted as 'hh:mm:ssZ'
thursdayEndTime a character formatted as 'hh:mm:ssZ'
thursdayStartTime a character formatted as 'hh:mm:ssZ'
timeZoneId a character
tuesdayEndTime a character formatted as 'hh:mm:ssZ'
tuesdayStartTime a character formatted as 'hh:mm:ssZ'
wednesdayEndTime a character formatted as 'hh:mm:ssZ'
wednesdayStartTime a character formatted as 'hh:mm:ssZ'

BusinessHoursSettings

fullName a character (inherited from Metadata)
businessHours a BusinessHoursEntry
holidays a Holiday

BusinessProcess

fullName a character (inherited from Metadata)
description a character
isActive a character either 'true' or 'false'
values a PicklistValue

CallCenter

fullName a character (inherited from Metadata)
adapterUrl a character
customSettings a character
displayName a character
displayNameLabel a character
internalNameLabel a character
sections a CallCenterSection
version a character

CallCenterItem

label a character
name a character
value a character

CallCenterSection

items a CallCenterItem

label a character

name a character

CampaignInfluenceModel

fullName a character (inherited from Metadata)

isActive a character either 'true' or 'false'

isDefaultModel a character either 'true' or 'false'

isModelLocked a character either 'true' or 'false'

modelDescription a character

name a character

recordPreference a character

CaseSettings

fullName a character (inherited from Metadata)

caseAssignNotificationTemplate a character

caseCloseNotificationTemplate a character

caseCommentNotificationTemplate a character

caseCreateNotificationTemplate a character

caseFeedItemSettings a FeedItemSettings

closeCaseThroughStatusChange a character either 'true' or 'false'

defaultCaseOwner a character

defaultCaseOwnerType a character

defaultCaseUser a character

emailActionDefaultsHandlerClass a character

emailToCase a EmailToCaseSettings

enableCaseFeed a character either 'true' or 'false'

enableDraftEmails a character either 'true' or 'false'

enableEarlyEscalationRuleTriggers a character either 'true' or 'false'

enableEmailActionDefaultsHandler a character either 'true' or 'false'

enableSuggestedArticlesApplication a character either 'true' or 'false'

enableSuggestedArticlesCustomerPortal a character either 'true' or 'false'

enableSuggestedArticlesPartnerPortal a character either 'true' or 'false'

enableSuggestedSolutions a character either 'true' or 'false'

keepRecordTypeOnAssignmentRule a character either 'true' or 'false'

notifyContactOnCaseComment a character either 'true' or 'false'

notifyDefaultCaseOwner a character either 'true' or 'false'

notifyOwnerOnCaseComment a character either 'true' or 'false'

notifyOwnerOnCaseOwnerChange a character either 'true' or 'false'
showEmailAttachmentsInCaseAttachmentsRL a character either 'true' or 'false'
showFewerCloseActions a character either 'true' or 'false'
systemUserEmail a character
useSystemEmailAddress a character either 'true' or 'false'
useSystemUserAsDefaultCaseUser a character either 'true' or 'false'
webToCase a WebToCaseSettings

CaseSubjectParticle

fullName a character (inherited from Metadata)
index an integer
textField a character
type a CaseSubjectParticleType - which is a character taking one of the following values:

- ProvidedString
- Source
- MessageType
- SocialHandle
- SocialNetwork
- Sentiment
- RealName
- Content
- PipeSeparator
- ColonSeparator
- HyphenSeparator

Certificate

content a character formed using [base64encode](#) (inherited from MetadataWithContent)
caSigned a character either 'true' or 'false'
encryptedWithPlatformEncryption a character either 'true' or 'false'
expirationDate a character formatted as 'yyyy-mm-ddThh:mm:ssZ'
keySize an integer
masterLabel a character
privateKeyExportable a character either 'true' or 'false'

ChannelLayout

fullName a character (inherited from Metadata)
enabledChannels a character
label a character
layoutItems a ChannelLayoutItem

recordType a character

ChannelLayoutItem

field a character

ChartSummary

aggregate a ReportSummaryType - which is a character taking one of the following values:

- Sum
- Average
- Maximum
- Minimum
- None

axisBinding a ChartAxis - which is a character taking one of the following values:

- x
- y
- y2
- r

column a character

ChatterAnswersReputationLevel

name a character

value an integer

ChatterAnswersSettings

fullName a character (inherited from Metadata)

emailFollowersOnBestAnswer a character either 'true' or 'false'

emailFollowersOnReply a character either 'true' or 'false'

emailOwnerOnPrivateReply a character either 'true' or 'false'

emailOwnerOnReply a character either 'true' or 'false'

enableAnswerViaEmail a character either 'true' or 'false'

enableChatterAnswers a character either 'true' or 'false'

enableFacebookSSO a character either 'true' or 'false'

enableInlinePublisher a character either 'true' or 'false'

enableReputation a character either 'true' or 'false'

enableRichTextEditor a character either 'true' or 'false'

facebookAuthProvider a character

showInPortals a character either 'true' or 'false'

ChatterExtension

fullName a character (inherited from Metadata)
compositionComponent a character
description a character
extensionName a character
headerText a character
hoverText a character
icon a character
isProtected a character either 'true' or 'false'
masterLabel a character
renderComponent a character
type a ChatterExtensionType - which is a character taking one of the following values:

- Lightning

ChatterMobileSettings

enablePushNotifications a character either 'true' or 'false'

CleanDataService

fullName a character (inherited from Metadata)
cleanRules a CleanRule
description a character
masterLabel a character
matchEngine a character

CleanRule

bulkEnabled a character either 'true' or 'false'
bypassTriggers a character either 'true' or 'false'
bypassWorkflow a character either 'true' or 'false'
description a character
developerName a character
fieldMappings a FieldMapping
masterLabel a character
matchRule a character
sourceSubjectType a character
status a CleanRuleStatus - which is a character taking one of the following values:

- Inactive
- Active

targetSubjectType a character

CodeLocation

column an integer
line an integer
numExecutions an integer
time a numeric

Community

fullName a character (inherited from Metadata)
active a character either 'true' or 'false'
chatterAnswersFacebookSsoUrl a character
communityFeedPage a character
dataCategoryName a character
description a character
emailFooterDocument a character
emailHeaderDocument a character
emailNotificationUrl a character
enableChatterAnswers a character either 'true' or 'false'
enablePrivateQuestions a character either 'true' or 'false'
expertsGroup a character
portal a character
reputationLevels a ReputationLevels
showInPortal a character either 'true' or 'false'
site a character

CommunityCustomThemeLayoutType

description a character
label a character

CommunityRoles

customerUserRole a character
employeeUserRole a character
partnerUserRole a character

CommunityTemplateBundleInfo

description a character
image a character
order an integer
title a character

type a CommunityTemplateBundleInfoType - which is a character taking one of the following values:

- Highlight
- PreviewImage

CommunityTemplateDefinition

fullName a character (inherited from Metadata)

baseTemplate a CommunityBaseTemplate - which is a character taking one of the following values:

- c

bundlesInfo a CommunityTemplateBundleInfo

category a CommunityTemplateCategory - which is a character taking one of the following values:

- IT
- Marketing
- Sales
- Service

defaultBrandingSet a character

defaultThemeDefinition a character

description a character

enableExtendedCleanUpOnDelete a character either 'true' or 'false'

masterLabel a character

navigationLinkSet a NavigationLinkSet

pageSetting a CommunityTemplatePageSetting

CommunityTemplatePageSetting

page a character

themeLayout a character

CommunityThemeDefinition

fullName a character (inherited from Metadata)

customThemeLayoutType a CommunityCustomThemeLayoutType

description a character

enableExtendedCleanUpOnDelete a character either 'true' or 'false'

masterLabel a character

themeSetting a CommunityThemeSetting

CommunityThemeSetting

customThemeLayoutType a character

themeLayout a character

themeLayoutType a CommunityThemeLayoutType - which is a character taking one of the following values:

- Login
- Home
- Inner

CompactLayout

fullName a character (inherited from Metadata)

fields a character

label a character

CompanySettings

fullName a character (inherited from Metadata)

fiscalYear a FiscalYearSettings

ComponentInstance

componentInstanceProperties a ComponentInstanceProperty

componentName a character

visibilityRule a UiFormulaRule

ComponentInstanceProperty

name a character

type a ComponentInstancePropertyTypeEnum - which is a character taking one of the following values:

- decorator

value a character

ConnectedApp

fullName a character (inherited from Metadata)

attributes a ConnectedAppAttribute

canvasConfig a ConnectedAppCanvasConfig

contactEmail a character

contactPhone a character

description a character

iconUrl a character

infoUrl a character

ipRanges a ConnectedAppIpRange

label a character

logoUrl a character

mobileAppConfig a ConnectedAppMobileDetailConfig

mobileStartUrl a character

oauthConfig a ConnectedAppOauthConfig

plugin a character

samlConfig a ConnectedAppSamlConfig

startUrl a character

ConnectedAppAttribute

formula a character

key a character

ConnectedAppCanvasConfig

accessMethod a AccessMethod - which is a character taking one of the following values:

- Get
- Post

canvasUrl a character

lifecycleClass a character

locations a CanvasLocationOptions - which is a character taking one of the following values:

- None
- Chatter
- UserProfile
- Visualforce
- Aura
- Publisher
- ChatterFeed
- ServiceDesk
- OpenCTI
- AppLauncher
- MobileNav
- PageLayout

options a CanvasOptions - which is a character taking one of the following values:

- HideShare
- HideHeader
- PersonalEnabled

samlInitiationMethod a SamlInitiationMethod - which is a character taking one of the following values:

- None
- IdpInitiated
- SpInitiated

ConnectedAppIpRange

description a character

end a character

start a character

ConnectedAppMobileDetailConfig

applicationBinaryFile a character formed using [base64encode](#)

applicationBinaryFileName a character

applicationBundleIdentifier a character

applicationFileLength an integer

applicationIconFile a character

applicationIconFileName a character

applicationInstallUrl a character

devicePlatform a DevicePlatformType - which is a character taking one of the following values:

- ios
- android

deviceType a DeviceType - which is a character taking one of the following values:

- phone
- tablet
- minitabket

minimumOsVersion a character

privateApp a character either 'true' or 'false'

version a character

ConnectedAppOauthConfig

callbackUrl a character

certificate a character

consumerKey a character

consumerSecret a character

scopes a ConnectedAppOauthAccessScope - which is a character taking one of the following values:

- Basic
- Api
- Web
- Full
- Chatter
- CustomApplications
- RefreshToken
- OpenID

- Profile
- Email
- Address
- Phone
- OfflineAccess
- CustomPermissions
- Wave
- Eclair

singleLogoutUrl a character

ConnectedAppSamlConfig

acsUrl a character

certificate a character

encryptionCertificate a character

encryptionType a SamlEncryptionType - which is a character taking one of the following values:

- AES_128
- AES_256
- Triple_Des

entityUrl a character

issuer a character

samlIdpSLOBindingEnum a SamlIdpSLOBinding - which is a character taking one of the following values:

- RedirectBinding
- PostBinding

samlNameIdFormat a SamlNameIdFormatType - which is a character taking one of the following values:

- Unspecified
- EmailAddress
- Persistent
- Transient

samlSloUrl a character

samlSubjectCustomAttr a character

samlSubjectType a SamlSubjectType - which is a character taking one of the following values:

- Username
- FederationId
- UserId
- SpokeId
- CustomAttribute
- PersistentId

Container

height an integer
isContainerAutoSizeEnabled a character either 'true' or 'false'
region a character
sidebarComponents a SidebarComponent
style a character
unit a character
width an integer

ContentAsset

content a character formed using [base64encode](#) (inherited from MetadataWithContent)
format a ContentAssetFormat - which is a character taking one of the following values:

- Original
- ZippedVersions

language a character
masterLabel a character
originNetwork a character
relationships a ContentAssetRelationships
versions a ContentAssetVersions

ContentAssetLink

access a ContentAssetAccess - which is a character taking one of the following values:

- VIEWER
- COLLABORATOR
- INFERRED

isManagingWorkspace a character either 'true' or 'false'
name a character

ContentAssetRelationships

insightsApplication a ContentAssetLink
network a ContentAssetLink
organization a ContentAssetLink
workspace a ContentAssetLink

ContentAssetVersion

number a character
pathOnClient a character
zipEntry a character

ContentAssetVersions

version a ContentAssetVersion

ContractSettings

fullName a character (inherited from Metadata)

autoCalculateEndDate a character either 'true' or 'false'

autoExpirationDelay a character

autoExpirationRecipient a character

autoExpireContracts a character either 'true' or 'false'

enableContractHistoryTracking a character either 'true' or 'false'

notifyOwnersOnContractExpiration a character either 'true' or 'false'

CorsWhitelistOrigin

fullName a character (inherited from Metadata)

urlPattern a character

CountriesAndStates

countries a Country

Country

active a character either 'true' or 'false'

integrationValue a character

isoCode a character

label a character

orgDefault a character either 'true' or 'false'

standard a character either 'true' or 'false'

states a State

visible a character either 'true' or 'false'

CspTrustedSite

fullName a character (inherited from Metadata)

description a character

endpointUrl a character

isActive a character either 'true' or 'false'

CustomApplication

fullName a character (inherited from Metadata)

actionOverrides a AppActionOverride

brand a AppBrand

consoleConfig a ServiceCloudConsoleConfig

defaultLandingTab a character

description a character

formFactors a FormFactor - which is a character taking one of the following values:

- Small
- Medium
- Large

isServiceCloudConsole a character either 'true' or 'false'

label a character

logo a character

navType a NavType - which is a character taking one of the following values:

- Standard
- Console

preferences a AppPreferences

profileActionOverrides a AppProfileActionOverride

setupExperience a character

subscriberTabs a character

tabs a character

uiType a UiType - which is a character taking one of the following values:

- Aloha
- Lightning

utilityBar a character

workspaceConfig a AppWorkspaceConfig

CustomApplicationComponent

fullName a character (inherited from Metadata)

buttonIconUrl a character

buttonStyle a character

buttonText a character

buttonWidth an integer

height an integer

isHeightFixed a character either 'true' or 'false'

isHidden a character either 'true' or 'false'

isWidthFixed a character either 'true' or 'false'

visualforcePage a character

width an integer

CustomApplicationTranslation

label a character

name a character

CustomConsoleComponents

primaryTabComponents a PrimaryTabComponents

subtabComponents a SubtabComponents

CustomDataType

fullName a character (inherited from Metadata)

customDataTypeComponents a CustomDataTypeComponent

description a character

displayFormula a character

editComponentsOnSeparateLines a character either 'true' or 'false'

label a character

rightAligned a character either 'true' or 'false'

supportComponentsInReports a character either 'true' or 'false'

CustomDataTypeComponent

developerSuffix a character

enforceFieldRequiredness a character either 'true' or 'false'

label a character

length an integer

precision an integer

scale an integer

sortOrder a SortOrder - which is a character taking one of the following values:

- Asc
- Desc

sortPriority an integer

type a FieldType - which is a character taking one of the following values:

- AutoNumber
- Lookup
- MasterDetail
- Checkbox
- Currency
- Date
- DateTime
- Email
- Number
- Percent
- Phone

- Picklist
- MultiselectPicklist
- Text
- TextArea
- LongTextArea
- Html
- Url
- EncryptedText
- Summary
- Hierarchy
- File
- MetadataRelationship
- Location
- ExternalLookup
- IndirectLookup
- CustomDataType
- Time

CustomDataTypeComponentTranslation

developerSuffix a character

label a character

CustomDataTypeTranslation

components a CustomDataTypeComponentTranslation

customDataTypeName a character

description a character

label a character

CustomExperience

fullName a character (inherited from Metadata)

allowInternalUserLogin a character either 'true' or 'false'

branding a CustomExperienceBranding

changePasswordEmailTemplate a character

emailFooterLogo a character

emailFooterText a character

emailSenderAddress a character

emailSenderName a character

enableErrorPageOverridesForVisualforce a character either 'true' or 'false'

forgotPasswordEmailTemplate a character

picassoSite a character

sObjectType a character
sendWelcomeEmail a character either 'true' or 'false'
site a character
siteAsContainerEnabled a character either 'true' or 'false'
tabs a CustomExperienceTabSet
urlPathPrefix a character
welcomeEmailTemplate a character

CustomExperienceBranding

loginFooterText a character
loginLogo a character
pageFooter a character
pageHeader a character
primaryColor a character
primaryComplementColor a character
quaternaryColor a character
quaternaryComplementColor a character
secondaryColor a character
tertiaryColor a character
tertiaryComplementColor a character
zeronaryColor a character
zeronaryComplementColor a character

CustomExperienceTabSet

customTab a character
defaultTab a character
standardTab a character

CustomFeedFilter

fullName a character (inherited from Metadata)
criteria a FeedFilterCriterion
description a character
isProtected a character either 'true' or 'false'
label a character

CustomField

fullName a character (inherited from Metadata)
businessOwnerGroup a character

businessOwnerUser a character

businessStatus a character

caseSensitive a character either 'true' or 'false'

customDataType a character

defaultValue a character

deleteConstraint a DeleteConstraint - which is a character taking one of the following values:

- Cascade
- Restrict
- SetNull

deprecated a character either 'true' or 'false'

description a character

displayFormat a character

encrypted a character either 'true' or 'false'

escapeMarkup a character either 'true' or 'false'

externalDeveloperName a character

externalId a character either 'true' or 'false'

fieldManageability a FieldManageability - which is a character taking one of the following values:

- DeveloperControlled
- SubscriberControlled
- Locked

formula a character

formulaTreatBlanksAs a TreatBlanksAs - which is a character taking one of the following values:

- BlankAsBlank
- BlankAsZero

inlineHelpText a character

isConvertLeadDisabled a character either 'true' or 'false'

isFilteringDisabled a character either 'true' or 'false'

isNameField a character either 'true' or 'false'

isSortingDisabled a character either 'true' or 'false'

label a character

length an integer

lookupFilter a LookupFilter

maskChar a EncryptedFieldMaskChar - which is a character taking one of the following values:

- asterisk
- X

maskType a EncryptedFieldMaskType - which is a character taking one of the following values:

- all
- creditCard

- ssn
- lastFour
- sin
- nino

metadataRelationshipControllingField a character

populateExistingRows a character either 'true' or 'false'

precision an integer

referenceTargetField a character

referenceTo a character

relationshipLabel a character

relationshipName a character

relationshipOrder an integer

reparentableMasterDetail a character either 'true' or 'false'

required a character either 'true' or 'false'

restrictedAdminField a character either 'true' or 'false'

scale an integer

securityClassification a SecurityClassification - which is a character taking one of the following values:

- AccountInformation
- ConfigurationAndUsageData
- DataIntendedToBePublic
- BusinessSetupDataBusinessDataAndAggregates
- AssociativeBusinessOrPersonalData
- AuthenticationData

startingNumber an integer

stripMarkup a character either 'true' or 'false'

summarizedField a character

summaryFilterItems a FilterItem

summaryForeignKey a character

summaryOperation a SummaryOperations - which is a character taking one of the following values:

- count
- sum
- min
- max

trackFeedHistory a character either 'true' or 'false'

trackHistory a character either 'true' or 'false'

trackTrending a character either 'true' or 'false'

type a FieldType - which is a character taking one of the following values:

- AutoNumber
- Lookup
- MasterDetail
- Checkbox
- Currency
- Date
- DateTime
- Email
- Number
- Percent
- Phone
- Picklist
- MultiselectPicklist
- Text
- TextArea
- LongTextArea
- Html
- Url
- EncryptedText
- Summary
- Hierarchy
- File
- MetadataRelationship
- Location
- ExternalLookup
- IndirectLookup
- CustomDataType
- Time

unique a character either 'true' or 'false'

valueSet a ValueSet

visibleLines an integer

writeRequiresMasterRead a character either 'true' or 'false'

CustomFieldTranslation

caseValues a ObjectNameCaseValue

gender a Gender - which is a character taking one of the following values:

- Neuter
- Masculine
- Feminine
- AnimateMasculine

help a character

label a character

lookupFilter a LookupFilterTranslation

name a character

picklistValues a PicklistValueTranslation

relationshipLabel a character

startsWith a StartsWith - which is a character taking one of the following values:

- Consonant
- Vowel
- Special

CustomLabel

fullName a character (inherited from Metadata)

categories a character

language a character

protected a character either 'true' or 'false'

shortDescription a character

value a character

CustomLabels

fullName a character (inherited from Metadata)

labels a CustomLabel

CustomLabelTranslation

label a character

name a character

CustomMetadata

fullName a character (inherited from Metadata)

description a character

label a character

protected a character either 'true' or 'false'

values a CustomMetadataValue

CustomMetadataValue

field a character

value a character that appears similar to any of the other accepted types (integer, numeric, date, datetime, boolean)

CustomNotificationType

fullName a character (inherited from Metadata)

customNotifTypeName a character

description a character

desktop a character either 'true' or 'false'

email a character either 'true' or 'false'

masterLabel a character

mobile a character either 'true' or 'false'

CustomObject

fullName a character (inherited from Metadata)

actionOverrides a ActionOverride

allowInChatterGroups a character either 'true' or 'false'

articleTypeChannelDisplay a ArticleTypeChannelDisplay

businessProcesses a BusinessProcess

compactLayoutAssignment a character

compactLayouts a CompactLayout

customHelp a character

customHelpPage a character

customSettingsType a CustomSettingsType - which is a character taking one of the following values:

- List
- Hierarchy

dataStewardGroup a character

dataStewardUser a character

deploymentStatus a DeploymentStatus - which is a character taking one of the following values:

- InDevelopment
- Deployed

deprecated a character either 'true' or 'false'

description a character

enableActivities a character either 'true' or 'false'

enableBulkApi a character either 'true' or 'false'

enableChangeDataCapture a character either 'true' or 'false'

enableDivisions a character either 'true' or 'false'

enableEnhancedLookup a character either 'true' or 'false'

enableFeeds a character either 'true' or 'false'

enableHistory a character either 'true' or 'false'

enableReports a character either 'true' or 'false'

enableSearch a character either 'true' or 'false'

enableSharing a character either 'true' or 'false'

enableStreamingApi a character either 'true' or 'false'

eventType a PlatformEventType - which is a character taking one of the following values:

- HighVolume
- StandardVolume

externalDataSource a character

externalName a character

externalRepository a character

externalSharingModel a SharingModel - which is a character taking one of the following values:

- Private
- Read
- ReadSelect
- ReadWrite
- ReadWriteTransfer
- FullAccess
- ControlledByParent

fieldSets a FieldSet

fields a CustomField

gender a Gender - which is a character taking one of the following values:

- Neuter
- Masculine
- Feminine
- AnimateMasculine

historyRetentionPolicy a HistoryRetentionPolicy

household a character either 'true' or 'false'

indexes a Index

label a character

listViews a ListView

nameField a CustomField

pluralLabel a character

recordTypeTrackFeedHistory a character either 'true' or 'false'

recordTypeTrackHistory a character either 'true' or 'false'

recordTypes a RecordType

searchLayouts a SearchLayouts

sharingModel a SharingModel - which is a character taking one of the following values:

- Private
- Read
- ReadSelect
- ReadWrite

- ReadWriteTransfer
- FullAccess
- ControlledByParent

sharingReasons a SharingReason

sharingRecalculations a SharingRecalculation

startsWith a StartsWith - which is a character taking one of the following values:

- Consonant
- Vowel
- Special

validationRules a ValidationRule

visibility a SetupObjectVisibility - which is a character taking one of the following values:

- Protected
- Public

webLinks a WebLink

CustomObjectTranslation

fullName a character (inherited from Metadata)

caseValues a ObjectNameCaseValue

fieldSets a FieldSetTranslation

fields a CustomFieldTranslation

gender a Gender - which is a character taking one of the following values:

- Neuter
- Masculine
- Feminine
- AnimateMasculine

layouts a LayoutTranslation

nameFieldLabel a character

quickActions a QuickActionTranslation

recordTypes a RecordTypeTranslation

sharingReasons a SharingReasonTranslation

standardFields a StandardFieldTranslation

startsWith a StartsWith - which is a character taking one of the following values:

- Consonant
- Vowel
- Special

validationRules a ValidationRuleTranslation

webLinks a WebLinkTranslation

workflowTasks a WorkflowTaskTranslation

CustomPageWebLink

fullName a character (inherited from Metadata)

availability a WebLinkAvailability - which is a character taking one of the following values:

- online
- offline

description a character

displayType a WebLinkDisplayType - which is a character taking one of the following values:

- link
- button
- massActionButton

encodingKey a Encoding - which is a character taking one of the following values:

- UTF-8
- ISO-8859-1
- Shift_JIS
- ISO-2022-JP
- EUC-JP
- ks_c_5601-1987
- Big5
- GB2312
- Big5-HKSCS
- x-SJIS_0213

hasMenubar a character either 'true' or 'false'

hasScrollbars a character either 'true' or 'false'

hasToolbar a character either 'true' or 'false'

height an integer

isResizable a character either 'true' or 'false'

linkType a WebLinkType - which is a character taking one of the following values:

- url
- sControl
- javascript
- page
- flow

masterLabel a character

openType a WebLinkWindowType - which is a character taking one of the following values:

- newWindow
- sidebar
- noSidebar
- replace
- onClickJavaScript

page a character

position a WebLinkPosition - which is a character taking one of the following values:

- fullScreen
- none
- topLeft

protected a character either 'true' or 'false'

requireRowSelection a character either 'true' or 'false'

scontrol a character

showsLocation a character either 'true' or 'false'

showsStatus a character either 'true' or 'false'

url a character

width an integer

CustomPageWebLinkTranslation

label a character

name a character

CustomPermission

fullName a character (inherited from Metadata)

connectedApp a character

description a character

label a character

requiredPermission a CustomPermissionDependencyRequired

CustomPermissionDependencyRequired

customPermission a character

dependency a character either 'true' or 'false'

CustomShortcut

action a character (inherited from DefaultShortcut)

active a character either 'true' or 'false' (inherited from DefaultShortcut)

keyCommand a character (inherited from DefaultShortcut)

description a character

eventName a character

CustomSite

fullName a character (inherited from Metadata)

active a character either 'true' or 'false'

allowHomePage a character either 'true' or 'false'

allowStandardAnswersPages a character either 'true' or 'false'

allowStandardIdeasPages a character either 'true' or 'false'

allowStandardLookups a character either 'true' or 'false'

allowStandardPortalPages a character either 'true' or 'false'

allowStandardSearch a character either 'true' or 'false'

analyticsTrackingCode a character

authorizationRequiredPage a character

bandwidthExceededPage a character

browserXssProtection a character either 'true' or 'false'

changePasswordPage a character

chatterAnswersForgotPasswordConfirmPage a character

chatterAnswersForgotPasswordPage a character

chatterAnswersHelpPage a character

chatterAnswersLoginPage a character

chatterAnswersRegistrationPage a character

clickjackProtectionLevel a SiteClickjackProtectionLevel - which is a character taking one of the following values:

- AllowAllFraming
- SameOriginOnly
- NoFraming

contentSniffingProtection a character either 'true' or 'false'

cspUpgradeInsecureRequests a character either 'true' or 'false'

customWebAddresses a SiteWebAddress

description a character

favoriteIcon a character

fileNotFoundPage a character

forgotPasswordPage a character

genericErrorPage a character

guestProfile a character

inMaintenancePage a character

inactiveIndexPage a character

indexPage a character

masterLabel a character

myProfilePage a character

portal a character

referrerPolicyOriginWhenCrossOrigin a character either 'true' or 'false'

requireHttps a character either 'true' or 'false'

requireInsecurePortalAccess a character either 'true' or 'false'

robotsTxtPage a character
rootComponent a character
selfRegPage a character
serverIsDown a character
siteAdmin a character
siteRedirectMappings a SiteRedirectMapping
siteTemplate a character
siteType a SiteType - which is a character taking one of the following values:

- Siteforce
- Visualforce
- User

subdomain a character
urlPathPrefix a character

CustomTab

fullName a character (inherited from Metadata)
actionOverrides a ActionOverride
auraComponent a character
customObject a character either 'true' or 'false'
description a character
flexiPage a character
frameHeight an integer
hasSidebar a character either 'true' or 'false'
icon a character
label a character
mobileReady a character either 'true' or 'false'
motif a character
page a character
scontrol a character
splashPageLink a character
url a character
urlEncodingKey a Encoding - which is a character taking one of the following values:

- UTF-8
- ISO-8859-1
- Shift_JIS
- ISO-2022-JP
- EUC-JP
- ks_c_5601-1987

- Big5
- GB2312
- Big5-HKSCS
- x-SJIS_0213

CustomTabTranslation

label a character

name a character

CustomValue

fullName a character (inherited from Metadata)

color a character

default a character either 'true' or 'false'

description a character

isActive a character either 'true' or 'false'

label a character

Dashboard

fullName a character (inherited from Metadata)

backgroundEndColor a character

backgroundFadeDirection a ChartBackgroundDirection - which is a character taking one of the following values:

- TopToBottom
- LeftToRight
- Diagonal

backgroundStartColor a character

chartTheme a ChartTheme - which is a character taking one of the following values:

- light
- dark

colorPalette a ChartColorPalettes - which is a character taking one of the following values:

- Default
- gray
- colorSafe
- unity
- justice
- nightfall
- sunrise
- bluegrass
- tropic
- heat

- dusk
- pond
- watermelon
- fire
- water
- earth
- accessible

dashboardChartTheme a ChartTheme - which is a character taking one of the following values:

- light
- dark

dashboardColorPalette a ChartColorPalettes - which is a character taking one of the following values:

- Default
- gray
- colorSafe
- unity
- justice
- nightfall
- sunrise
- bluegrass
- tropic
- heat
- dusk
- pond
- watermelon
- fire
- water
- earth
- accessible

dashboardFilters a DashboardFilter

dashboardGridLayout a DashboardGridLayout

dashboardResultRefreshedDate a character

dashboardResultRunningUser a character

dashboardType a DashboardType - which is a character taking one of the following values:

- SpecifiedUser
- LoggedInUser
- MyTeamUser

description a character

folderName a character

isGridLayout a character either 'true' or 'false'

leftSection a DashboardComponentSection
middleSection a DashboardComponentSection
numSubscriptions an integer
rightSection a DashboardComponentSection
runningUser a character
textColor a character
title a character
titleColor a character
titleSize an integer

DashboardComponent

autoselectColumnsFromReport a character either 'true' or 'false'
chartAxisRange a ChartRangeType - which is a character taking one of the following values:

- Auto
- Manual

chartAxisRangeMax a numeric
chartAxisRangeMin a numeric
chartSummary a ChartSummary
componentChartTheme a ChartTheme - which is a character taking one of the following values:

- light
- dark

componentType a DashboardComponentType - which is a character taking one of the following values:

- Bar
- BarGrouped
- BarStacked
- BarStacked100
- Column
- ColumnGrouped
- ColumnStacked
- ColumnStacked100
- Line
- LineGrouped
- Pie
- Table
- Metric
- Gauge
- LineCumulative
- LineGroupedCumulative
- Scontrol

- VisualforcePage
- Donut
- Funnel
- ColumnLine
- ColumnLineGrouped
- ColumnLineStacked
- ColumnLineStacked100
- Scatter
- ScatterGrouped
- FlexTable

dashboardFilterColumns a DashboardFilterColumn

dashboardTableColumn a DashboardTableColumn

displayUnits a ChartUnits - which is a character taking one of the following values:

- Auto
- Integer
- Hundreds
- Thousands
- Millions
- Billions
- Trillions

drillDownUrl a character

drillEnabled a character either 'true' or 'false'

drillToDetailEnabled a character either 'true' or 'false'

enableHover a character either 'true' or 'false'

expandOthers a character either 'true' or 'false'

flexComponentProperties a DashboardFlexTableComponentProperties

footer a character

gaugeMax a numeric

gaugeMin a numeric

groupingColumn a character

header a character

indicatorBreakpoint1 a numeric

indicatorBreakpoint2 a numeric

indicatorHighColor a character

indicatorLowColor a character

indicatorMiddleColor a character

legendPosition a ChartLegendPosition - which is a character taking one of the following values:

- Right
- Bottom

- OnChart

maxValuesDisplayed an integer

metricLabel a character

page a character

pageHeightInPixels an integer

report a character

scontrol a character

scontrolHeightInPixels an integer

showPercentage a character either 'true' or 'false'

showPicturesOnCharts a character either 'true' or 'false'

showPicturesOnTables a character either 'true' or 'false'

showRange a character either 'true' or 'false'

showTotal a character either 'true' or 'false'

showValues a character either 'true' or 'false'

sortBy a DashboardComponentFilter - which is a character taking one of the following values:

- RowLabelAscending
- RowLabelDescending
- RowValueAscending
- RowValueDescending

title a character

useReportChart a character either 'true' or 'false'

DashboardComponentColumn

breakPoint1 a numeric

breakPoint2 a numeric

breakPointOrder an integer

highRangeColor an integer

lowRangeColor an integer

midRangeColor an integer

reportColumn a character

showTotal a character either 'true' or 'false'

type a DashboardComponentColumnType - which is a character taking one of the following values:

- NA

DashboardComponentSection

columnSize a DashboardComponentSize - which is a character taking one of the following values:

- Narrow
- Medium

- Wide

components a DashboardComponent

DashboardComponentSortInfo

sortColumn a character

sortOrder a character

DashboardFilter

dashboardFilterOptions a DashboardFilterOption

name a character

DashboardFilterColumn

column a character

DashboardFilterOption

operator a DashboardFilterOperation - which is a character taking one of the following values:

- equals
- notEqual
- lessThan
- greaterThan
- lessOrEqual
- greaterOrEqual
- contains
- notContain
- startsWith
- includes
- excludes
- between

values a character

DashboardFlexTableComponentProperties

flexTableColumn a DashboardComponentColumn

flexTableSortInfo a DashboardComponentSortInfo

hideChatterPhotos a character either 'true' or 'false'

DashboardFolder

accessType a FolderAccessTypes (inherited from Folder)

folderShares a FolderShare (inherited from Folder)

name a character (inherited from Folder)

publicFolderAccess a PublicFolderAccess (inherited from Folder)

sharedTo a SharedTo (inherited from Folder)

DashboardGridComponent

colSpan an integer

columnIndex an integer

dashboardComponent a DashboardComponent

rowIndex an integer

rowSpan an integer

DashboardGridLayout

dashboardGridComponents a DashboardGridComponent

numberOfColumns an integer

rowHeight an integer

DashboardMobileSettings

enableDashboardIPadApp a character either 'true' or 'false'

DashboardTableColumn

aggregateType a ReportSummaryType - which is a character taking one of the following values:

- Sum
- Average
- Maximum
- Minimum
- None

calculatePercent a character either 'true' or 'false'

column a character

decimalPlaces an integer

showTotal a character either 'true' or 'false'

sortBy a DashboardComponentFilter - which is a character taking one of the following values:

- RowLabelAscending
- RowLabelDescending
- RowValueAscending
- RowValueDescending

DataCategory

dataCategory a DataCategory

label a character

name a character

DataCategoryGroup

fullName a character (inherited from Metadata)

active a character either 'true' or 'false'

dataCategory a DataCategory

description a character

label a character

objectUsage a ObjectUsage

DataPipeline

content a character formed using [base64encode](#) (inherited from MetadataWithContent)

apiVersion a numeric

label a character

scriptType a DataPipelineType - which is a character taking one of the following values:

- Pig

DefaultShortcut

action a character

active a character either 'true' or 'false'

keyCommand a character

DelegateGroup

fullName a character (inherited from Metadata)

customObjects a character

groups a character

label a character

loginAccess a character either 'true' or 'false'

permissionSets a character

profiles a character

roles a character

DeployDetails

componentFailures a DeployMessage

componentSuccesses a DeployMessage

retrieveResult a RetrieveResult

runTestResult a RunTestsResult

DeployOptions

allowMissingFiles a character either 'true' or 'false'

autoUpdatePackage a character either 'true' or 'false'

checkOnly a character either 'true' or 'false'
ignoreWarnings a character either 'true' or 'false'
performRetrieve a character either 'true' or 'false'
purgeOnDelete a character either 'true' or 'false'
rollbackOnError a character either 'true' or 'false'
runTests a character
singlePackage a character either 'true' or 'false'
testLevel a TestLevel - which is a character taking one of the following values:

- NoTestRun
- RunSpecifiedTests
- RunLocalTests
- RunAllTestsInOrg

DescribeMetadataObject

childXmlNames a character
directoryName a character
inFolder a character either 'true' or 'false'
metaFile a character either 'true' or 'false'
suffix a character
xmlName a character

Document

content a character formed using [base64encode](#) (inherited from MetadataWithContent)
description a character
internalUseOnly a character either 'true' or 'false'
keywords a character
name a character
public a character either 'true' or 'false'

DocumentFolder

accessType a FolderAccessTypes (inherited from Folder)
folderShares a FolderShare (inherited from Folder)
name a character (inherited from Folder)
publicFolderAccess a PublicFolderAccess (inherited from Folder)
sharedTo a SharedTo (inherited from Folder)

DuplicateRule

fullName a character (inherited from Metadata)
actionOnInsert a DupeActionType - which is a character taking one of the following values:

- Allow
- Block

actionOnUpdate a DupeActionType - which is a character taking one of the following values:

- Allow
- Block

alertText a character

description a character

duplicateRuleFilter a DuplicateRuleFilter

duplicateRuleMatchRules a DuplicateRuleMatchRule

isActive a character either 'true' or 'false'

masterLabel a character

operationsOnInsert a character

operationsOnUpdate a character

securityOption a DupeSecurityOptionType - which is a character taking one of the following values:

- EnforceSharingRules
- BypassSharingRules

sortOrder an integer

DuplicateRuleFilter

booleanFilter a character

duplicateRuleFilterItems a DuplicateRuleFilterItem

DuplicateRuleFilterItem

field a character (inherited from FilterItem)

operation a FilterOperation (inherited from FilterItem)

value a character (inherited from FilterItem)

valueField a character (inherited from FilterItem)

sortOrder an integer

table a character

DuplicateRuleMatchRule

matchRuleSObjectType a character

matchingRule a character

objectMapping a ObjectMapping

EclairGeoData

content a character formed using [base64encode](#) (inherited from MetadataWithContent)

maps a EclairMap

masterLabel a character

EclairMap

boundingBoxBottom a numeric

boundingBoxLeft a numeric

boundingBoxRight a numeric

boundingBoxTop a numeric

mapLabel a character

mapName a character

projection a character

EmailFolder

accessType a FolderAccessTypes (inherited from Folder)

folderShares a FolderShare (inherited from Folder)

name a character (inherited from Folder)

publicFolderAccess a PublicFolderAccess (inherited from Folder)

sharedTo a SharedTo (inherited from Folder)

EmailServicesAddress

authorizedSenders a character

developerName a character

isActive a character either 'true' or 'false'

localPart a character

runAsUser a character

EmailServicesFunction

fullName a character (inherited from Metadata)

apexClass a character

attachmentOption a EmailServicesAttOptions - which is a character taking one of the following values:

- None
- TextOnly
- BinaryOnly
- All
- NoContent

authenticationFailureAction a EmailServicesErrorAction - which is a character taking one of the following values:

- UseSystemDefault
- Bounce

- Discard
- Requeue

authorizationFailureAction a EmailServicesErrorAction - which is a character taking one of the following values:

- UseSystemDefault
- Bounce
- Discard
- Requeue

authorizedSenders a character

emailServicesAddresses a EmailServicesAddress

errorRoutingAddress a character

functionInactiveAction a EmailServicesErrorAction - which is a character taking one of the following values:

- UseSystemDefault
- Bounce
- Discard
- Requeue

functionName a character

isActive a character either 'true' or 'false'

isAuthenticationRequired a character either 'true' or 'false'

isErrorRoutingEnabled a character either 'true' or 'false'

isTextAttachmentsAsBinary a character either 'true' or 'false'

isTlsRequired a character either 'true' or 'false'

overLimitAction a EmailServicesErrorAction - which is a character taking one of the following values:

- UseSystemDefault
- Bounce
- Discard
- Requeue

EmailTemplate

content a character formed using [base64encode](#) (inherited from MetadataWithContent)

apiVersion a numeric

attachedDocuments a character

attachments a Attachment

available a character either 'true' or 'false'

description a character

encodingKey a Encoding - which is a character taking one of the following values:

- UTF-8

- ISO-8859-1
- Shift_JIS
- ISO-2022-JP
- EUC-JP
- ks_c_5601-1987
- Big5
- GB2312
- Big5-HKSCS
- x-SJIS_0213

letterhead a character

name a character

packageVersions a PackageVersion

relatedEntityType a character

style a EmailTemplateStyle - which is a character taking one of the following values:

- none
- freeForm
- formalLetter
- promotionRight
- promotionLeft
- newsletter
- products

subject a character

textOnly a character

type a EmailTemplateType - which is a character taking one of the following values:

- text
- html
- custom
- visualforce

uiType a EmailTemplateUiType - which is a character taking one of the following values:

- Aloha
- SFX
- SFX_Sample

EmailToCaseRoutingAddress

addressType a EmailToCaseRoutingAddressType - which is a character taking one of the following values:

- EmailToCase
- Outlook

authorizedSenders a character

caseOrigin a character

caseOwner a character
caseOwnerType a character
casePriority a character
createTask a character either 'true' or 'false'
emailAddress a character
emailServicesAddress a character
isVerified a character either 'true' or 'false'
routingName a character
saveEmailHeaders a character either 'true' or 'false'
taskStatus a character

EmailToCaseSettings

enableE2CSourceTracking a character either 'true' or 'false'
enableEmailToCase a character either 'true' or 'false'
enableHtmlEmail a character either 'true' or 'false'
enableOnDemandEmailToCase a character either 'true' or 'false'
enableThreadIDInBody a character either 'true' or 'false'
enableThreadIDInSubject a character either 'true' or 'false'
notifyOwnerOnNewCaseEmail a character either 'true' or 'false'
overEmailLimitAction a EmailToCaseOnFailureActionType - which is a character taking one of the following values:

- Bounce
- Discard
- Requeue

preQuoteSignature a character either 'true' or 'false'
routingAddresses a EmailToCaseRoutingAddress
unauthorizedSenderAction a EmailToCaseOnFailureActionType - which is a character taking one of the following values:

- Bounce
- Discard
- Requeue

EmbeddedServiceBranding

fullName a character (inherited from Metadata)
contrastInvertedColor a character
contrastPrimaryColor a character
embeddedServiceConfig a character
font a character
masterLabel a character

navBarColor a character
primaryColor a character
secondaryColor a character

EmbeddedServiceConfig

fullName a character (inherited from Metadata)
masterLabel a character
site a character

EmbeddedServiceFieldService

fullName a character (inherited from Metadata)
appointmentBookingFlowName a character
cancelApptBookingFlowName a character
embeddedServiceConfig a character
enabled a character either 'true' or 'false'
fieldServiceConfirmCardImg a character
fieldServiceHomeImg a character
fieldServiceLogoImg a character
masterLabel a character
modifyApptBookingFlowName a character
shouldShowExistingAppointment a character either 'true' or 'false'
shouldShowNewAppointment a character either 'true' or 'false'

EmbeddedServiceLiveAgent

fullName a character (inherited from Metadata)
avatarImg a character
customPrechatComponent a character
embeddedServiceConfig a character
embeddedServiceQuickActions a EmbeddedServiceQuickAction
enabled a character either 'true' or 'false'
fontSize a EmbeddedServiceFontSize - which is a character taking one of the following values:

- Small
- Medium
- Large

headerBackgroundImg a character
liveAgentChatUrl a character
liveAgentContentUrl a character
liveChatButton a character

liveChatDeployment a character
masterLabel a character
prechatBackgroundImg a character
prechatEnabled a character either 'true' or 'false'
prechatJson a character
scenario a EmbeddedServiceScenario - which is a character taking one of the following values:

- Sales
- Service
- Basic

smallCompanyLogoImg a character
waitingStateBackgroundImg a character
EmbeddedServiceQuickAction
embeddedServiceLiveAgent a character
order an integer
quickActionDefinition a character
EntitlementProcess
fullName a character (inherited from Metadata)
ObjectType a character
active a character either 'true' or 'false'
businessHours a character
description a character
entryStartDateField a character
exitCriteriaBooleanFilter a character
exitCriteriaFilterItems a FilterItem
exitCriteriaFormula a character
isRecordTypeApplied a character either 'true' or 'false'
isVersionDefault a character either 'true' or 'false'
milestones a EntitlementProcessMilestoneItem
name a character
recordType a character
versionMaster a character
versionNotes a character
versionNumber an integer
EntitlementProcessMilestoneItem
businessHours a character

criteriaBooleanFilter a character
milestoneCriteriaFilterItems a FilterItem
milestoneCriteriaFormula a character
milestoneName a character
minutesCustomClass a character
minutesToComplete an integer
successActions a WorkflowActionReference
timeTriggers a EntitlementProcessMilestoneTimeTrigger
useCriteriaStartTime a character either 'true' or 'false'

EntitlementProcessMilestoneTimeTrigger

actions a WorkflowActionReference
timeLength an integer
workflowTimeTriggerUnit a MilestoneTimeUnits - which is a character taking one of the following values:

- Minutes
- Hours
- Days

EntitlementSettings

fullName a character (inherited from Metadata)
assetLookupLimitedToActiveEntitlementsOnAccount a character either 'true' or 'false'
assetLookupLimitedToActiveEntitlementsOnContact a character either 'true' or 'false'
assetLookupLimitedToSameAccount a character either 'true' or 'false'
assetLookupLimitedToSameContact a character either 'true' or 'false'
enableEntitlementVersioning a character either 'true' or 'false'
enableEntitlements a character either 'true' or 'false'
entitlementLookupLimitedToActiveStatus a character either 'true' or 'false'
entitlementLookupLimitedToSameAccount a character either 'true' or 'false'
entitlementLookupLimitedToSameAsset a character either 'true' or 'false'
entitlementLookupLimitedToSameContact a character either 'true' or 'false'

EntitlementTemplate

fullName a character (inherited from Metadata)
businessHours a character
casesPerEntitlement an integer
entitlementProcess a character
isPerIncident a character either 'true' or 'false'

term an integer

type a character

EscalationAction

assignedTo a character

assignedToTemplate a character

assignedToType a AssignToLookupValueType - which is a character taking one of the following values:

- User
- Queue

minutesToEscalation an integer

notifyCaseOwner a character either 'true' or 'false'

notifyEmail a character

notifyTo a character

notifyToTemplate a character

EscalationRule

fullName a character (inherited from Metadata)

active a character either 'true' or 'false'

ruleEntry a RuleEntry

EscalationRules

fullName a character (inherited from Metadata)

escalationRule a EscalationRule

EventDelivery

fullName a character (inherited from Metadata)

eventParameters a EventParameterMap

eventSubscription a character

referenceData a character

type a EventDeliveryType - which is a character taking one of the following values:

- StartFlow
- ResumeFlow

EventParameterMap

parameterName a character

parameterValue a character

EventSubscription

fullName a character (inherited from Metadata)

active a character either 'true' or 'false'

eventParameters a EventParameterMap

eventType a character

referenceData a character

ExtendedErrorDetails

extendedErrorCode a ExtendedErrorCode - which is a character taking one of the following values:

- ACTIONCALL_DUPLICATE_INPUT_PARAM - Errors with this extended error code have the following properties: actionCallName, parameterName
- ACTIONCALL_DUPLICATE_OUTPUT_PARAM - Errors with this extended error code have the following properties: actionCallName, parameterName
- ACTIONCALL_MISSING_NAME - Errors with this extended error code have the following properties:
- ACTIONCALL_MISSING_REQUIRED_PARAM - Errors with this extended error code have the following properties: actionCallName, parameterName
- ACTIONCALL_MISSING_REQUIRED_TYPE - Errors with this extended error code have the following properties: actionCallName
- ACTIONCALL_NOT_FOUND_WITH_NAME_AND_TYPE - Errors with this extended error code have the following properties:
- ACTIONCALL_NOT_SUPPORTED_FOR_PROCESSTYPE - Errors with this extended error code have the following properties: processType
- APEXCALLOUT_INPUT_DUPLICATE - Errors with this extended error code have the following properties: apexClassName, parameterName
- APEXCALLOUT_INPUT_INCOMPATIBLE_DATATYPE - Errors with this extended error code have the following properties: apexClassName, parameterName
- APEXCALLOUT_INVALID - Errors with this extended error code have the following properties: apexClassName
- APEXCALLOUT_MISSING_CLASSNAME - Errors with this extended error code have the following properties: apexClassName
- APEXCALLOUT_NOT_FOUND - Errors with this extended error code have the following properties: apexClassName
- APEXCALLOUT_OUTPUT_INCOMPATIBLE_DATATYPE - Errors with this extended error code have the following properties: apexClassName, parameterName
- APEXCALLOUT_OUTPUT_NOT_FOUND - Errors with this extended error code have the following properties: apexClassName, parameterName
- APEXCALLOUT_REQUIRED_INPUT_MISSING - Errors with this extended error code have the following properties: apexClassName, parameterName
- APEXCLASS_MISSING_INTERFACE - Errors with this extended error code have the following properties: apexClassName, parentScreenFieldName
- ASSIGNMENTITEM_ELEMENT_MISSING_DATATYPE - Errors with this extended error code have the following properties: assignmentName, operatorName, elementName

- ASSIGNMENTITEM_ELEMENT_NOT_SUPPORTED - Errors with this extended error code have the following properties: elementName, assignmentName, elementType
- ASSIGNMENTITEM_FIELD_INVALID_DATATYPE - Errors with this extended error code have the following properties: fieldValue, dataType, incompatibleDataType
- ASSIGNMENTITEM_FIELD_INVALID_DATATYPE_WITH_ELEMENT - Errors with this extended error code have the following properties: elementName, acceptedDataType, dataType, fieldValue
- ASSIGNMENTITEM_INCOMPATIBLE_DATATYPES - Errors with this extended error code have the following properties: assignmentName, operatorName, leftElementName, leftElementType, rightElementName, rightElementType
- ASSIGNMENTITEM_INVALID_COLLECTION - Errors with this extended error code have the following properties: assignmentName, operatorName, leftElementName, rightElementName
- ASSIGNMENTITEM_INVALID_DATATYPE_IN_ELEMENT - Errors with this extended error code have the following properties: elementName, dataType, incompatibleDataType
- ASSIGNMENTITEM_INVALID_REFERENCE - Errors with this extended error code have the following properties: parameterName, operatorName
- ASSIGNMENTITEM_LEFT_DATATYPE_INVALID_FOR_OPERATOR - Errors with this extended error code have the following properties: assignmentName, operatorName, dataType, elementName
- ASSIGNMENTITEM_MODIFIES_NONVARIABLE - Errors with this extended error code have the following properties: assignmentName
- ASSIGNMENTITEM_NONEXISTENT_REFERENCE - Errors with this extended error code have the following properties: parameterName, operatorName
- ASSIGNMENTITEM_REQUIRED - Errors with this extended error code have the following properties: assignmentName
- ASSIGNMENTITEM_RIGHT_DATATYPE_INVALID_FOR_OPERATOR - Errors with this extended error code have the following properties: elementName
- AUTOLAUNCHED_CHOICELOOKUP_NOT_SUPPORTED - Errors with this extended error code have the following properties: choiceLookupName
- AUTOLAUNCHED_CHOICE_NOT_SUPPORTED - Errors with this extended error code have the following properties: choiceName
- AUTOLAUNCHED_SCREEN_NOT_SUPPORTED - Errors with this extended error code have the following properties:
- AUTOLAUNCHED_STEP_NOT_SUPPORTED - Errors with this extended error code have the following properties:
- AUTOLAUNCHED_SUBFLOW_INCOMPATIBLE_FLOWTYPE - Errors with this extended error code have the following properties: subflowType
- AUTOLAUNCHED_WAIT_NOT_SUPPORTED - Errors with this extended error code have the following properties:
- CHOICEFIELD_DEFAULT_CHOICE_NOT_FOUND - Errors with this extended error code have the following properties: screenFieldName
- CHOICEFIELD_MISSING_CHOICE - Errors with this extended error code have the following properties: questionName
- CHOICELOOKUP_DATATYPE_INCOMPATIBLE_WITH_CHOICEFIELD - Errors with this extended error code have the following properties: choiceName, parentScreenFieldName

- CHOICE_DATATYPE_INCOMPATIBLE_WITH_CHOICEFIELD - Errors with this extended error code have the following properties: choiceName, parentScreenFieldName
- CHOICE_NOT_SUPPORTED_FOR_SCREENFIELDTYPE - Errors with this extended error code have the following properties: elementName, screenFieldName
- CHOICE_USED_MULTIPLE_TIMES_IN_SAME_FIELD - Errors with this extended error code have the following properties: choiceName
- CONDITION_DATATYPE_INCOMPATIBLE - Errors with this extended error code have the following properties: leftElementName, leftElementType, operatorName, rightElementName, rightElementType, ruleName
- CONDITION_DATATYPE_INCOMPATIBLE_WITH_ELEMENT - Errors with this extended error code have the following properties: elementName, dataType, operatorName, parameterName, ruleName
- CONDITION_ELEMENT_DATATYPES_INCOMPATIBLE - Errors with this extended error code have the following properties: elementName, leftElementType, operatorName, rightElementType, ruleName
- CONDITION_INVALID_LEFTOPERAND - Errors with this extended error code have the following properties: ruleName
- CONDITION_INVALID_LEFT_ELEMENT - Errors with this extended error code have the following properties: elementName, dataType, operatorName, parameterName, ruleName
- CONDITION_LOGIC_EXCEEDS_LIMIT - Errors with this extended error code have the following properties: elementName, characterLimit
- CONDITION_LOGIC_INVALID - Errors with this extended error code have the following properties: elementName
- CONDITION_LOGIC_MISSING - Errors with this extended error code have the following properties: elementName
- CONDITION_MISSING_DATATYPE - Errors with this extended error code have the following properties: elementName, dataType, operatorName, parameterName, ruleName
- CONDITION_MISSING_OPERATOR - Errors with this extended error code have the following properties: ruleName
- CONDITION_REFERENCED_ELEMENT_NOT_FOUND - Errors with this extended error code have the following properties: ruleName
- CONDITION_RIGHTOPERAND_NULL - Errors with this extended error code have the following properties: ruleName
- CONNECTOR_MISSING_TARGET - Errors with this extended error code have the following properties: elementName
- CONSTANT_INCLUDES_REFERENCES - Errors with this extended error code have the following properties: constantName
- CUSTOMEVENTS_NOT_ENABLED - Errors with this extended error code have the following properties:
- CUSTOMEVENT_MISSING_PROCESSMETADATAVALUES - Errors with this extended error code have the following properties:
- CUSTOMEVENT_OBJECTTYPE_NOT_FOUND - Errors with this extended error code have the following properties: objectType
- CUSTOMEVENT_OBJECTTYPE_NOT_SUPPORTED - Errors with this extended error code have the following properties: objectType

- CUSTOMEVENT_PROCESSMETADATAVALUES_MISSING_NAME - Errors with this extended error code have the following properties: metadataValue
- CUSTOMEVENT_PROCESSMETADATAVALUES_MORE_THAN_ONE_NAME - Errors with this extended error code have the following properties: metadataValue
- DATATYPE_INVALID - Errors with this extended error code have the following properties: elementName, dataType
- DATATYPE_MISSING - Errors with this extended error code have the following properties: elementName
- DECISION_DEFAULT_CONNECTOR_MISSING_LABEL - Errors with this extended error code have the following properties: flowDecision
- DECISION_MISSING_OUTCOME - Errors with this extended error code have the following properties: flowDecision
- ELEMENT_CONNECTS_TO_SELF - Errors with this extended error code have the following properties: elementName
- ELEMENT_COORDINATES_INVALID - Errors with this extended error code have the following properties: coordinateLimit, coordinateName
- ELEMENT_INVALID_CONNECTOR - Errors with this extended error code have the following properties: elementName
- ELEMENT_INVALID_REFERENCE - Errors with this extended error code have the following properties: elementName
- ELEMENT_MISSING_CONNECTOR - Errors with this extended error code have the following properties: elementName
- ELEMENT_MISSING_LABEL - Errors with this extended error code have the following properties: characterLimit, elementName
- ELEMENT_MISSING_NAME - Errors with this extended error code have the following properties: characterLimit
- ELEMENT_MISSING_REFERENCE - Errors with this extended error code have the following properties: elementName
- ELEMENT_MORE_THAN_ONE_FIELD - Errors with this extended error code have the following properties: elementName
- ELEMENT_NAME_INVALID - Errors with this extended error code have the following properties:
- ELEMENT_NEVER_USED - Errors with this extended error code have the following properties: elementName
- ELEMENT_SCALE_SMALLER_THAN_DEFAULTVALUE - Errors with this extended error code have the following properties: elementName
- EXTERNAL_OBJECTS_NOT_SUPPORTED - Errors with this extended error code have the following properties: objectName
- EXTERNAL_OBJECT_FIELDS_NOT_SUPPORTED - Errors with this extended error code have the following properties: fieldReference
- FIELDASSIGNMENT_FIELD_INCOMPATIBLE_DATATYPE - Errors with this extended error code have the following properties: fieldName, elementName
- FIELDASSIGNMENT_INVALID_DATATYPE - Errors with this extended error code have the following properties: fieldName, elementName, assignmentName
- FIELDASSIGNMENT_INVALID_ELEMENT - Errors with this extended error code have the following properties: fieldName, elementName, elementType

- FIELDASSIGNMENT_INVALID_REFERENCE - Errors with this extended error code have the following properties: fieldName, parameterName
- FIELDASSIGNMENT_MULTIPLE_REFERENCES_SAME_FIELD - Errors with this extended error code have the following properties: fieldName
- FIELDASSIGNMENT_PICKLISTFIELD_INCOMPATIBLE_DATATYPE - Errors with this extended error code have the following properties: fieldName, dataType
- FIELDASSIGNMENT_REFERENCED_ELEMENT_MISSING_DATATYPE - Errors with this extended error code have the following properties: fieldName, elementName, elementType
- FIELDSERVICE_UNSUPPORTED_FIELD_TYPE - Errors with this extended error code have the following properties: elementName
- FIELD_INVALID_VALUE - Errors with this extended error code have the following properties: fieldName, parameterName
- FIELD_NOT_FOUND - Errors with this extended error code have the following properties: objectName, fieldName
- FIELD_RELATIONSHIP_NOT_SUPPORTED - Errors with this extended error code have the following properties: fieldRelationshipName
- FLEXIPAGE_COMPONENT_ATTRIBUTE_EXPRESSION_EXCEPTION - Errors with this extended error code have the following properties: componentName, propertyName, propertyType, errorCode, invalidTokens
- FLEXIPAGE_COMPONENT_ATTRIBUTE_GENERIC_EXCEPTION - Errors with this extended error code have the following properties: componentName, propertyName, propertyType, errorIdentifier, errorParams
- FLEXIPAGE_COMPONENT_ATTRIBUTE_MISSING_REQUIRED - Errors with this extended error code have the following properties: componentName, propertyName, propertyType
- FLEXIPAGE_COMPONENT_ATTRIBUTE_TOO_LONG - Errors with this extended error code have the following properties: componentName, propertyName, propertyType, maxLength
- FLEXIPAGE_COMPONENT_MAX_LIMIT_EXCEPTION - Errors with this extended error code have the following properties:
- FLEXIPAGE_COMPONENT_RULE_VALIDATION_EXCEPTION - Errors with this extended error code have the following properties: componentName, criterionIndex
- FLEXIPAGE_PICKLIST_INVALID_VALUE_EXCEPTION - Errors with this extended error code have the following properties: componentName, propertyName, propertyType, invalidValue
- FLOW_INCLUDES_STEP - Errors with this extended error code have the following properties: elementName
- FLOW_NAME_USED_IN_OTHER_CLIENT - Errors with this extended error code have the following properties: flowName
- FLOW_STAGE_INCLUDES_REFERENCES - Errors with this extended error code have the following properties: stageName
- FORMULA_EXPRESSION_INVALID - Errors with this extended error code have the following properties: formulaExpression
- INPUTPARAM_INCOMPATIBLE_DATATYPE - Errors with this extended error code have the following properties: parameterName

- INPUTPARAM_INCOMPATIBLE_WITH_COLLECTION_VARIABLE - Errors with this extended error code have the following properties: parameterName
- INPUTPARAM_INCOMPATIBLE_WITH_NONCOLLECTION_VARIABLE - Errors with this extended error code have the following properties: parameterName
- INPUTPARAM_MISMATCHED_OBJECTTYPE - Errors with this extended error code have the following properties: parameterName
- INVALID_FLOW - Errors with this extended error code have the following properties:
- INVALID_SURVEY_VARIABLE_NAME_OR_TYPE - Errors with this extended error code have the following properties: surveyName
- LOOP_ASSIGNNEXTVALUETO_MISMATCHED_DATATYPE - Errors with this extended error code have the following properties: elementName
- LOOP_ASSIGNNEXTVALUETO_MISMATCHED_OBJECTTYPE - Errors with this extended error code have the following properties: elementName
- LOOP_ASSIGNNEXTVALUETO_MISSING - Errors with this extended error code have the following properties: elementName
- LOOP_ASSIGNNEXTVALUETO_MISSING_VARIABLE - Errors with this extended error code have the following properties: elementName
- LOOP_ASSIGNNEXTVALUETO_REFERENCE_NOT_FOUND - Errors with this extended error code have the following properties: fieldRelationshipName
- LOOP_COLLECTION_ELEMENT_NOT_FOUND - Errors with this extended error code have the following properties: elementName
- LOOP_COLLECTION_NOT_FOUND - Errors with this extended error code have the following properties: elementName
- LOOP_COLLECTION_NOT_SUPPORTED_FOR_FIELD - Errors with this extended error code have the following properties: fieldName
- LOOP_MISSING_COLLECTION - Errors with this extended error code have the following properties:
- OBJECTTYPE_INVALID - Errors with this extended error code have the following properties: objectType
- OBJECT_CANNOT_BE_CREATED - Errors with this extended error code have the following properties: objectName
- OBJECT_CANNOT_BE_DELETED - Errors with this extended error code have the following properties: objectName
- OBJECT_CANNOT_BE_QUERIED - Errors with this extended error code have the following properties: objectName
- OBJECT_CANNOT_BE_UPDATED - Errors with this extended error code have the following properties: objectName
- OBJECT_ENCRYPTED_FIELDS_NOT_SUPPORTED - Errors with this extended error code have the following properties: fieldName
- OBJECT_NOT_FOUND - Errors with this extended error code have the following properties: objectName
- OUTPUTPARAM_ASSIGNTOREFERENCE_NOTFOUND - Errors with this extended error code have the following properties: parameterName
- OUTPUTPARAM_INCOMPATIBLE_DATATYPE - Errors with this extended error code have the following properties: parameterName

- OUTPUTPARAM_MISMATCHED_OBJECTTYPE - Errors with this extended error code have the following properties: parameterName
- OUTPUTPARAM_MISMATCHED_WITH_COLLECTION_VARIABLE - Errors with this extended error code have the following properties: parameterName
- OUTPUTPARAM_MISSING_ASSIGNTOREFERENCE - Errors with this extended error code have the following properties: parameterName
- OUTPUTPARAM_MISMATCHED_WITH_NONCOLLECTION_VARIABLE - Errors with this extended error code have the following properties: parameterName
- PARAM_DATATYPE_NOT_SUPPORTED - Errors with this extended error code have the following properties: parameterName
- PROCESSMETADATAVALUES_NOT_SUPPORTED_FOR_PROCESSTYPE - Errors with this extended error code have the following properties: processType, metadataValue
- PROCESSMETADATAVALUE_NONEXISTENT_ELEMENT - Errors with this extended error code have the following properties: metadataValue
- PROCESSTYPE_ELEMENT_NOT_SUPPORTED - Errors with this extended error code have the following properties: processType, elementType
- PROCESSTYPE_NOT_SUPPORTED - Errors with this extended error code have the following properties: processType
- RECORDFILTER_ENCRYPTED_FIELDS_NOT_SUPPORTED - Errors with this extended error code have the following properties: fieldName
- RECORDFILTER_GEOLOCATION_FIELDS_NOT_SUPPORTED - Errors with this extended error code have the following properties: fieldName, objectName
- RECORDFILTER_INVALID_DATATYPE - Errors with this extended error code have the following properties: fieldName, elementName, elementType, operatorName
- RECORDFILTER_INVALID_ELEMENT - Errors with this extended error code have the following properties: fieldName, assignmentName, elementName, elementType
- RECORDFILTER_INVALID_OPERATOR - Errors with this extended error code have the following properties: fieldName, operatorName
- RECORDFILTER_INVALID_REFERENCE - Errors with this extended error code have the following properties: fieldName, operatorName
- RECORDFILTER_MISSING_DATATYPE - Errors with this extended error code have the following properties: fieldName, elementName, elementType, operatorName
- RECORDFILTER_MULTIPLE_QUERIES_SAME_FIELD - Errors with this extended error code have the following properties: fieldName
- RECORDLOOKUP_IDASSIGNMENT_VARIABLE_INCOMPATIBLE_DATATYPE - Errors with this extended error code have the following properties: elementName
- RECORDLOOKUP_IDASSIGNMENT_VARIABLE_NOT_FOUND - Errors with this extended error code have the following properties: elementName
- RECORDUPDATE_MISSING_FILTERS - Errors with this extended error code have the following properties: objectName
- REFERENCED_ELEMENT_NOT_FOUND - Errors with this extended error code have the following properties: elementName, mergeFieldReference
- RULE_MISSING_CONDITION - Errors with this extended error code have the following properties: elementName, ruleName
- SCREENFIELD_BOOLEAN_ISREQUIRED_IS_FALSE - Errors with this extended error code have the following properties: fieldName

- SCREENFIELD_DEFAULTVALUE_NOT_SUPPORTED - Errors with this extended error code have the following properties: elementName
- SCREENFIELD_EXTENSION_COMPONENT_NOT_GLOBAL - Errors with this extended error code have the following properties: elementName
- SCREENFIELD_EXTENSION_DUPLICATE_INPUT_PARAM - Errors with this extended error code have the following properties: elementName, extensionName, parameterName
- SCREENFIELD_EXTENSION_DUPLICATE_OUTPUT_PARAM - Errors with this extended error code have the following properties: elementName, extensionName, parameterName
- SCREENFIELD_EXTENSION_IMPLEMENTATION_INVALID - Errors with this extended error code have the following properties: elementName, extensionName
- SCREENFIELD_EXTENSION_INPUT_ATTRIBUTE_INVALID - Errors with this extended error code have the following properties: elementName, extensionName, parameterName
- SCREENFIELD_EXTENSION_NAME_INVALID - Errors with this extended error code have the following properties: elementName, extensionName
- SCREENFIELD_EXTENSION_NAME_MISSING - Errors with this extended error code have the following properties: elementName, fieldType
- SCREENFIELD_EXTENSION_NAME_NOT_SUPPORTED - Errors with this extended error code have the following properties: elementName, fieldType
- SCREENFIELD_EXTENSION_OUTPUT_ATTRIBUTE_INVALID - Errors with this extended error code have the following properties: elementName, extensionName, parameterName
- SCREENFIELD_EXTENSION_REQUIRED_INPUT_MISSING - Errors with this extended error code have the following properties: elementName, extensionName, parameterName
- SCREENFIELD_INPUTS_NOT_SUPPORTED - Errors with this extended error code have the following properties: elementName, fieldType
- SCREENFIELD_INVALID_DATATYPE - Errors with this extended error code have the following properties: dataType, fieldType
- SCREENFIELD_MULTISELECTCHOICE_SEMICOLON_NOT_SUPPORTED - Errors with this extended error code have the following properties: choiceName
- SCREENFIELD_OUTPUTS_NOT_SUPPORTED - Errors with this extended error code have the following properties: elementName, fieldType
- SCREENFIELD_TYPE_NOT_SUPPORTED - Errors with this extended error code have the following properties: elementName, fieldType
- SCREENFIELD_USERINPUT_NOT_SUPPORTED_FOR_CHOICETYPE - Errors with this extended error code have the following properties: choiceName
- SCREENFIELD_VALIDATIONRULE_NOT_SUPPORTED - Errors with this extended error code have the following properties: elementName
- SCREENRULE_ACTION_INVALID_ATTRIBUTE - Errors with this extended error code have the following properties: screenRuleName, attributeName
- SCREENRULE_ACTION_INVALID_ATTRIBUTE_FOR_API_VERSION - Errors with this extended error code have the following properties: screenRuleName, attributeName

- SCREENRULE_ACTION_INVALID_VALUE - Errors with this extended error code have the following properties: screenRuleName, acceptedValues, actionValue
- SCREENRULE_ACTION_MISSING_ATTRIBUTE - Errors with this extended error code have the following properties: screenRuleName
- SCREENRULE_ACTION_MISSING_FIELDREFERENCE - Errors with this extended error code have the following properties: screenRuleName
- SCREENRULE_ACTION_MISSING_VALUE - Errors with this extended error code have the following properties: screenRuleName
- SCREENRULE_ATTRIBUTE_NOT_SUPPORTED_FOR_SCREENFIELD - Errors with this extended error code have the following properties: screenRuleName, attributeName, fieldName
- SCREENRULE_FIELD_NOT_FOUND_ON_SCREEN - Errors with this extended error code have the following properties: screenRuleName, fieldValue
- SCREENRULE_MISSING_ACTION - Errors with this extended error code have the following properties: screenRuleName
- SCREENRULE_NOT_SUPPORTED_IN_ORG - Errors with this extended error code have the following properties:
- SCREENRULE_SCREENFIELD_NOT_VISIBLE - Errors with this extended error code have the following properties: fieldName
- SCREENRULE_VISIBILITY_NOT_SUPPORTED_IN_ORG - Errors with this extended error code have the following properties:
- SCREEN_ALLOWBACK_ALLOWFINISH_BOTH_FALSE - Errors with this extended error code have the following properties:
- SCREEN_CONTAINS_LIGHTNING_COMPONENT - Errors with this extended error code have the following properties: elementName
- SCREEN_MISSING_FOOTER_AND_LIGHTNING_COMPONENT - Errors with this extended error code have the following properties:
- SCREEN_MISSING_LABEL - Errors with this extended error code have the following properties: characterLimit
- SCREEN_MULTISELECTFIELD_DOESNT_SUPPORT_CHOICE_WITH_USERINPUT - Errors with this extended error code have the following properties: choiceName
- SCREEN_PAUSEDTEXT_NOT_SHOWN_WHEN_ALLOWPAUSE_IS_FALSE - Errors with this extended error code have the following properties: fieldName
- SETTING_FIELD_MAKES_OTHER_FIELD_REQUIRED - Errors with this extended error code have the following properties: fieldName, requiredField
- SETTING_FIELD_MAKES_OTHER_FIELD_UNSUPPORTED - Errors with this extended error code have the following properties: fieldName, otherFieldName
- SUBJECT_ELEMENT_INCOMPATIBLE_DATATYPE - Errors with this extended error code have the following properties: fieldName, fieldValue
- SUBJECT_ELEMENT_MISMATCHED_OBJECTTYPE - Errors with this extended error code have the following properties: objectType, objectName
- SORT_ENCRYPTED_FIELDS_NOT_SUPPORTED - Errors with this extended error code have the following properties: fieldName, objectType
- SORT_FIELD_MISSING - Errors with this extended error code have the following properties: sortOrder

- SORT_FIELD_NOT_SUPPORTED - Errors with this extended error code have the following properties: fieldName, objectName
- SORT_GEOLOCATION_FIELDS_NOT_SUPPORTED - Errors with this extended error code have the following properties: fieldName, objectName
- SORT_LIMIT_INVALID - Errors with this extended error code have the following properties: maxLimit
- SORT_ORDER_MISSING - Errors with this extended error code have the following properties: fieldName
- SPECIFIC_FIELD_VALUE_MAKES_OTHER_FIELD_REQUIRED - Errors with this extended error code have the following properties: fieldName, fieldType, requiredField
- START_ELEMENT_MISSING - Errors with this extended error code have the following properties:
- SUBFLOW_DESKTOP_DESIGNER_FLOWS_NOT_SUPPORTED - Errors with this extended error code have the following properties: flowName
- SUBFLOW_INPUT_ELEMENT_INCOMPATIBLE_DATATYPES - Errors with this extended error code have the following properties: subflowName, inputAssignmentNames
- SUBFLOW_INPUT_INVALID_VALUE - Errors with this extended error code have the following properties: subflowName, inputAssignmentNames
- SUBFLOW_INPUT_MISMATCHED_COLLECTIONTYPES - Errors with this extended error code have the following properties: subflowName, inputParameterNames
- SUBFLOW_INPUT_MISMATCHED_OBJECTS - Errors with this extended error code have the following properties: subflowName, inputParameterNames
- SUBFLOW_INPUT_MISSING_NAME - Errors with this extended error code have the following properties: subflowName
- SUBFLOW_INPUT_MULTIPLE_ASSIGNMENTS_TO_ONE_VARIABLE - Errors with this extended error code have the following properties: inputVariableName
- SUBFLOW_INPUT_REFERENCES_FIELD_ON_SUBJECT_VARIABLE - Errors with this extended error code have the following properties: inputVariableName
- SUBFLOW_INPUT_VALUE_INCOMPATIBLE_DATATYPES - Errors with this extended error code have the following properties: subflowName, inputAssignmentNames
- SUBFLOW_INPUT_VARIABLE_NOT_FOUND_IN_MASTERFLOW - Errors with this extended error code have the following properties: subflowName, inputAssignmentNames
- SUBFLOW_INPUT_VARIABLE_NOT_FOUND_IN_REFERENCEDFLOW - Errors with this extended error code have the following properties: subflowName, inputAssignmentNames
- SUBFLOW_INPUT_VARIABLE_NO_INPUT_ACCESS - Errors with this extended error code have the following properties: subflowName, inputAssignmentNames
- SUBFLOW_INVALID_NAME - Errors with this extended error code have the following properties:
- SUBFLOW_INVALID_REFERENCE - Errors with this extended error code have the following properties: flowName
- SUBFLOW_MASTER_FLOW_TYPE_NOT_AUTOLAUNCHED - Errors with this extended error code have the following properties: parentFlowName
- SUBFLOW_MISSING_NAME - Errors with this extended error code have the following properties:

- SUBFLOW_NO_ACTIVE_VERSION - Errors with this extended error code have the following properties: subflowName, flowName
- SUBFLOW_OUTPUT_INCOMPATIBLE_DATATYPES - Errors with this extended error code have the following properties: subflowName, flowVersion, outputParameterNames
- SUBFLOW_OUTPUT_MISMATCHED_COLLECTIONTYPES - Errors with this extended error code have the following properties: subflowName, flowVersion, outputParameterNames
- SUBFLOW_OUTPUT_MISMATCHED_OBJECTS - Errors with this extended error code have the following properties: subflowName, flowVersion, outputParameterNames
- SUBFLOW_OUTPUT_MISSING_ASSIGNTOREFERENCE - Errors with this extended error code have the following properties: outputAssignment
- SUBFLOW_OUTPUT_MISSING_NAME - Errors with this extended error code have the following properties: subflowName
- SUBFLOW_OUTPUT_MULTIPLE_ASSIGNMENTS_TO_ONE_VARIABLE - Errors with this extended error code have the following properties: outputVariableName
- SUBFLOW_OUTPUT_REFERENCES_FIELD_ON_SOBJECT_VARIABLE - Errors with this extended error code have the following properties: outputAssignment
- SUBFLOW_OUTPUT_TARGET_DOES_NOT_EXIST_IN_MASTER_FLOW - Errors with this extended error code have the following properties: subflowName, outputAssignmentName
- SUBFLOW_OUTPUT_VARIABLE_NOT_FOUND_IN_MASTERFLOW - Errors with this extended error code have the following properties: subflowName, variableName
- SUBFLOW_OUTPUT_VARIABLE_NOT_FOUND_IN_REFERENCEDFLOW - Errors with this extended error code have the following properties: subflowName, flowVersion, outputParameterNames
- SUBFLOW_OUTPUT_VARIABLE_NO_OUTPUT_ACCESS - Errors with this extended error code have the following properties: subflowName, variableName
- SUBFLOW_REFERENCES_MASTERFLOW - Errors with this extended error code have the following properties:
- SURVEY_CHOICE_NOT_REFERENCED_BY_A_QUESTION - Errors with this extended error code have the following properties: choiceName
- SURVEY_CHOICE_REFERENCED_BY_MULTIPLE_QUESTIONS - Errors with this extended error code have the following properties: choiceName
- SURVEY_INACTIVE_SUBFLOWS - Errors with this extended error code have the following properties: subflowName
- SURVEY_MISSING_QUESTION_OR_SUBFLOW - Errors with this extended error code have the following properties: surveyName
- SURVEY_MISSING_REQUIRED_VARIABLES - Errors with this extended error code have the following properties: surveyName
- SURVEY_NESTED_SUBFLOWS - Errors with this extended error code have the following properties: subflowName
- SURVEY_NONSURVEY_SUBFLOWS - Errors with this extended error code have the following properties: subflowName
- SURVEY_SCREENFIELD_TYPE_NOT_SUPPORTED_FOR_QUESTION - Errors with this extended error code have the following properties: elementName

- SURVEY_START_ELEMENT_INVALID - Errors with this extended error code have the following properties:
- SURVEY_VARIABLE_ACCESS_INVALID - Errors with this extended error code have the following properties: surveyName
- UNEXPECTED_ERROR - Errors with this extended error code have the following properties:
- VALUE_CHAR_LIMIT_EXCEEDED - Errors with this extended error code have the following properties: elementName, characterLimit
- VARIABLE_FIELD_NOT_SUPPORTED_FOR_DATATYPE - Errors with this extended error code have the following properties: fieldName, datatype
- VARIABLE_FIELD_NOT_SUPPORTED_FOR_DATATYPE_AND_COLLECTION - Errors with this extended error code have the following properties: fieldName, datatype
- VARIABLE_FIELD_REQUIRED_FOR_DATATYPE - Errors with this extended error code have the following properties: datatype, fieldName
- VARIABLE_SCALE_EXCEEDS_LIMIT - Errors with this extended error code have the following properties: elementName
- VARIABLE_SCALE_NEGATIVE_INTEGER - Errors with this extended error code have the following properties: elementName
- VARIABLE_SCALE_NULL - Errors with this extended error code have the following properties: elementName
- WAITEVENT_DEFAULT_CONNECTOR_MISSING_LABEL - Errors with this extended error code have the following properties: waitEventName
- WAITEVENT_DUPLICATE_INPUT_PARAM - Errors with this extended error code have the following properties: parameterName
- WAITEVENT_INPUT_NOT_SUPPORTED_FOR_EVENTTYPE - Errors with this extended error code have the following properties: waitEventName, inputParameterName
- WAITEVENT_INPUT_REQUIRES_LITERAL_VALUE - Errors with this extended error code have the following properties: waitEventName, parameterName
- WAITEVENT_INVALID_CONDITION_LOGIC - Errors with this extended error code have the following properties: waitEventName
- WAITEVENT_MISSING - Errors with this extended error code have the following properties:
- WAITEVENT_MISSING_CONNECTOR - Errors with this extended error code have the following properties: waitEventName
- WAITEVENT_MISSING_EVENTTYPE - Errors with this extended error code have the following properties: waitEventName
- WAITEVENT_OBJECT_NOT_SUPPORTED_FOR_EVENTTYPE - Errors with this extended error code have the following properties: waitEventName
- WAITEVENT_OUTPUT_NOT_SUPPORTED_FOR_EVENTTYPE - Errors with this extended error code have the following properties: waitEventName, outputParameter
- WAITEVENT_RELATIVEALARM_INVALID_DATETIME_FIELD - Errors with this extended error code have the following properties: waitEventName, eventParameterName, incompatibleValue
- WAITEVENT_RELATIVEALARM_INVALID_FIELD - Errors with this extended error code have the following properties: waitEventName, eventParameterName, incompatibleValue

- **WAITEVENT_RELATIVEALARM_INVALID_OBJECTTYPE** - Errors with this extended error code have the following properties: waitEventName, inputParameterName
- **WAITEVENT_RELATIVEALARM_INVALID_OFFSETNUMBER** - Errors with this extended error code have the following properties: waitEventName, eventParameterName, incompatibleValue
- **WAITEVENT_RELATIVEALARM_INVALID_OFFSETUNIT** - Errors with this extended error code have the following properties: waitEventName, eventParameterName, incompatibleValue
- **WAITEVENT_REQUIRED_INPUT_MISSING** - Errors with this extended error code have the following properties: waitEventName, parameterName
- **WAITEVENT_TYPE_INVALID_OR_NOT_SUPPORTED** - Errors with this extended error code have the following properties: waitEventName
- **WORKFLOW_MISSING_PROCESSMETADATAVALUES** - Errors with this extended error code have the following properties: flowName
- **WORKFLOW_OBJECTTYPE_NOT_FOUND** - Errors with this extended error code have the following properties: objectType
- **WORKFLOW_OBJECTTYPE_NOT_SUPPORTED** - Errors with this extended error code have the following properties: objectType
- **WORKFLOW_OBJECTVARIABLE_AND_OLDOBJECTVARIABLE_REFERENCE_SAME_SUBJECT_VARIABLE** - Errors with this extended error code have the following properties: objectVariableName, oldObjectVariableName
- **WORKFLOW_OBJECTVARIABLE_DOESNT_SUPPORT_INPUT** - Errors with this extended error code have the following properties: objectType, objectVariableName
- **WORKFLOW_OLDOBJECTVARIABLE_DOESNT_SUPPORT_INPUT** - Errors with this extended error code have the following properties: objectType, oldObjectVariableName
- **WORKFLOW_PROCESSMETADATAVALUES_MORE_THAN_ONE_NAME** - Errors with this extended error code have the following properties: metadataValue
- **WORKFLOW_PROCESS_METADATAVALUES_MISSING_NAME** - Errors with this extended error code have the following properties: metadataValue
- **WORKFLOW_RECURSIVECOUNTVARIABLE_DOESNT_SUPPORT_INPUT** - Errors with this extended error code have the following properties: elementName
- **WORKFLOW_TRIGGERTYPE_INVALID_VALUE** - Errors with this extended error code have the following properties:

ExternalDataSource

fullName a character (inherited from Metadata)

authProvider a character

certificate a character

customConfiguration a character

endpoint a character

isWritable a character either 'true' or 'false'

label a character

oauthRefreshToken a character

oauthScope a character

oauthToken a character

password a character

principalType a ExternalPrincipalType - which is a character taking one of the following values:

- Anonymous
- PerUser
- NamedUser

protocol a AuthenticationProtocol - which is a character taking one of the following values:

- NoAuthentication
- Oauth
- Password

repository a character

type a ExternalDataSourceType - which is a character taking one of the following values:

- Datacloud
- Datajourney
- OpenSearch
- Identity
- outgoingemail
- recommendation
- SfdcOrg
- OData
- OData4
- SimpleURL
- Wrapper

username a character

version a character

ExternalServiceRegistration

fullName a character (inherited from Metadata)

description a character

label a character

namedCredential a character

schema a character

schemaType a character

schemaUrl a character

status a character

FeedFilterCriterion

feedItemType a FeedItemType - which is a character taking one of the following values:

- TrackedChange
- UserStatus
- TextPost
- AdvancedTextPost
- LinkPost
- ContentPost
- PollPost
- RypplePost
- ProfileSkillPost
- DashboardComponentSnapshot
- ApprovalPost
- CaseCommentPost
- ReplyPost
- EmailMessageEvent
- CallLogPost
- ChangeStatusPost
- AttachArticleEvent
- MilestoneEvent
- ActivityEvent
- ChatTranscriptPost
- CollaborationGroupCreated
- CollaborationGroupUnarchived
- SocialPost
- QuestionPost
- FacebookPost
- BasicTemplateFeedItem
- CreateRecordEvent
- CanvasPost
- AnnouncementPost

feedItemVisibility a FeedItemVisibility - which is a character taking one of the following values:

- AllUsers
- InternalUsers

relatedObjectType a character

FeedItemSettings

characterLimit an integer

collapseThread a character either 'true' or 'false'

displayFormat a FeedItemDisplayFormat - which is a character taking one of the following values:

- Default
- HideBlankLines

feedItemType a FeedItemType - which is a character taking one of the following values:

- TrackedChange
- UserStatus
- TextPost
- AdvancedTextPost
- LinkPost
- ContentPost
- PollPost
- RypplePost
- ProfileSkillPost
- DashboardComponentSnapshot
- ApprovalPost
- CaseCommentPost
- ReplyPost
- EmailMessageEvent
- CallLogPost
- ChangeStatusPost
- AttachArticleEvent
- MilestoneEvent
- ActivityEvent
- ChatTranscriptPost
- CollaborationGroupCreated
- CollaborationGroupUnarchived
- SocialPost
- QuestionPost
- FacebookPost
- BasicTemplateFeedItem
- CreateRecordEvent
- CanvasPost
- AnnouncementPost

FeedLayout

autocollapsePublisher a character either 'true' or 'false'

compactFeed a character either 'true' or 'false'

feedFilterPosition a FeedLayoutFilterPosition - which is a character taking one of the following values:

- CenterDropDown
- LeftFixed
- LeftFloat

feedFilters a FeedLayoutFilter

fullWidthFeed a character either 'true' or 'false'

hideSidebar a character either 'true' or 'false'

highlightExternalFeedItems a character either 'true' or 'false'

leftComponents a FeedLayoutComponent

rightComponents a FeedLayoutComponent

useInlineFiltersInConsole a character either 'true' or 'false'

FeedLayoutComponent

componentType a FeedLayoutComponentType - which is a character taking one of the following values:

- HelpAndToolLinks
- CustomButtons
- Following
- Followers
- CustomLinks
- Milestones
- Topics
- CaseUnifiedFiles
- Visualforce

height an integer

page a character

FeedLayoutFilter

feedFilterName a character

feedFilterType a FeedLayoutFilterType - which is a character taking one of the following values:

- AllUpdates
- FeedItemType
- Custom

feedItemType a FeedItemType - which is a character taking one of the following values:

- TrackedChange
- UserStatus
- TextPost
- AdvancedTextPost
- LinkPost
- ContentPost
- PollPost
- RypplePost
- ProfileSkillPost
- DashboardComponentSnapshot
- ApprovalPost
- CaseCommentPost
- ReplyPost
- EmailMessageEvent

- CallLogPost
- ChangeStatusPost
- AttachArticleEvent
- MilestoneEvent
- ActivityEvent
- ChatTranscriptPost
- CollaborationGroupCreated
- CollaborationGroupUnarchived
- SocialPost
- QuestionPost
- FacebookPost
- BasicTemplateFeedItem
- CreateRecordEvent
- CanvasPost
- AnnouncementPost

FieldMapping

SObjectType a character

developerName a character

fieldMappingRows a FieldMappingRow

masterLabel a character

FieldMappingField

dataServiceField a character

dataServiceObjectName a character

priority an integer

FieldMappingRow

SObjectType a character

fieldMappingFields a FieldMappingField

fieldName a character

mappingOperation a MappingOperation - which is a character taking one of the following values:

- Autofill
- Overwrite

FieldOverride

field a character

formula a character

literalValue a character

FieldServiceSettings

fullName a character (inherited from Metadata)
fieldServiceNotificationsOrgPref a character either 'true' or 'false'
fieldServiceOrgPref a character either 'true' or 'false'
serviceAppointmentsDueDateOffsetOrgValue an integer
workOrderLineItemSearchFields a character
workOrderSearchFields a character

FieldSet

fullName a character (inherited from Metadata)
availableFields a FieldSetItem
description a character
displayedFields a FieldSetItem
label a character

FieldSetItem

field a character
isFieldManaged a character either 'true' or 'false'
isRequired a character either 'true' or 'false'

FieldSetTranslation

label a character
name a character

FieldValue

name a character
value a character that appears similar to any of the other accepted types (integer, numeric, date, datetime, boolean)

FileProperties

createdById a character
createdByName a character
createdDate a character formatted as 'yyyy-mm-ddThh:mm:ssZ'
fileName a character
fullName a character
id a character
lastModifiedById a character
lastModifiedByName a character
lastModifiedDate a character formatted as 'yyyy-mm-ddThh:mm:ssZ'
manageableState a ManageableState - which is a character taking one of the following values:

- released
- deleted
- deprecated
- installed
- beta
- unmanaged

namespacePrefix a character

type a character

FileTypeDispositionAssignmentBean

behavior a FileDownloadBehavior - which is a character taking one of the following values:

- DOWNLOAD
- EXECUTE_IN_BROWSER
- HYBRID

fileType a FileType - which is a character taking one of the following values:

- UNKNOWN
- PDF
- POWER_POINT
- POWER_POINT_X
- POWER_POINT_M
- POWER_POINT_T
- WORD
- WORD_X
- WORD_M
- WORD_T
- PPS
- PPSX
- EXCEL
- EXCEL_X
- EXCEL_M
- EXCEL_T
- GOOGLE_DOCUMENT
- GOOGLE_PRESENTATION
- GOOGLE_SPREADSHEET
- GOOGLE_DRAWING
- GOOGLE_FORM
- GOOGLE_SCRIPT
- LINK
- SLIDE
- AAC
- ACGI

- AI
- AVI
- BMP
- BOXNOTE
- CSV
- EPS
- EXE
- FLASH
- GIF
- GZIP
- HTM
- HTML
- HTX
- JPEG
- JPE
- PJP
- PJPEG
- JFIF
- JPG
- JS
- MHTM
- MHTML
- MP3
- M4A
- M4V
- MP4
- MPEG
- MPG
- MOV
- MSG
- ODP
- ODS
- ODT
- OGV
- PNG
- PSD
- RTF
- QUIPDOC
- QUIPSHEET
- SHTM
- SHTML
- SNOTE

- STYPI
- SVG
- SVGZ
- TEXT
- THTML
- VISIO
- WMV
- WRF
- XML
- ZIP
- XZIP
- WMA
- XSN
- TRTF
- TXML
- WEBVIEW
- RFC822
- ASF
- DWG
- JAR
- XJS
- OPX
- XPSD
- TIF
- TIFF
- WAV
- CSS
- THUMB720BY480
- THUMB240BY180
- THUMB120BY90
- ALLTHUMBS
- PAGED_FLASH
- PACK
- C
- CPP
- WORDT
- INI
- JAVA
- LOG
- POWER_POINTT
- SQL
- XHTML

- EXCELT

securityRiskFileType a character either 'true' or 'false'

FileUploadAndDownloadSecuritySettings

fullName a character (inherited from Metadata)

dispositions a FileTypeDispositionAssignmentBean

noHtmlUploadAsAttachment a character either 'true' or 'false'

FilterItem

field a character

operation a FilterOperation - which is a character taking one of the following values:

- equals
- notEqual
- lessThan
- greaterThan
- lessOrEqual
- greaterOrEqual
- contains
- notContain
- startsWith
- includes
- excludes
- within

value a character

valueField a character

FindSimilarOppFilter

similarOpportunitiesDisplayColumns a character

similarOpportunitiesMatchFields a character

FiscalYearSettings

fiscalYearNameBasedOn a character

startMonth a character

FlexiPage

fullName a character (inherited from Metadata)

description a character

flexiPageRegions a FlexiPageRegion

masterLabel a character

parentFlexiPage a character

platformActionlist a PlatformActionList

quickActionList a QuickActionList

subjectType a character

template a FlexiPageTemplateInstance

type a FlexiPageType - which is a character taking one of the following values:

- AppPage
- ObjectPage
- RecordPage
- HomePage
- MailAppAppPage
- CommAppPage
- CommForgotPasswordPage
- CommLoginPage
- CommObjectPage
- CommQuickActionCreatePage
- CommRecordPage
- CommRelatedListPage
- CommSearchResultPage
- CommGlobalSearchResultPage
- CommSelfRegisterPage
- CommThemeLayoutPage
- UtilityBar
- RecordPreview

FlexiPageRegion

appendable a RegionFlagStatus - which is a character taking one of the following values:

- disabled
- enabled

componentInstances a ComponentInstance

mode a FlexiPageRegionMode - which is a character taking one of the following values:

- Append
- Prepend
- Replace

name a character

prependable a RegionFlagStatus - which is a character taking one of the following values:

- disabled
- enabled

replaceable a RegionFlagStatus - which is a character taking one of the following values:

- disabled
- enabled

type a FlexiPageRegionType - which is a character taking one of the following values:

- Region
- Facet

FlexiPageTemplateInstance

name a character

properties a ComponentInstanceProperty

Flow

fullName a character (inherited from Metadata)

actionCalls a FlowActionCall

apexPluginCalls a FlowApexPluginCall

assignments a FlowAssignment

choices a FlowChoice

constants a FlowConstant

decisions a FlowDecision

description a character

dynamicChoiceSets a FlowDynamicChoiceSet

formulas a FlowFormula

interviewLabel a character

label a character

loops a FlowLoop

processMetadataValues a FlowMetadataValue

processType a FlowProcessType - which is a character taking one of the following values:

- AutoLaunchedFlow
- Flow
- Workflow
- CustomEvent
- InvocableProcess
- LoginFlow
- ActionPlan
- JourneyBuilderIntegration
- UserProvisioningFlow
- Survey
- FieldServiceMobile
- OrchestrationFlow
- FieldServiceWeb
- TransactionSecurityFlow

recordCreates a FlowRecordCreate

recordDeletes a FlowRecordDelete
recordLookups a FlowRecordLookup
recordUpdates a FlowRecordUpdate
screens a FlowScreen
stages a FlowStage
startElementReference a character
steps a FlowStep
subflows a FlowSubflow
textTemplates a FlowTextTemplate
variables a FlowVariable
waits a FlowWait

FlowActionCall

label a character (inherited from FlowNode)
locationX an integer (inherited from FlowNode)
locationY an integer (inherited from FlowNode)
actionName a character
actionType a InvocableActionType - which is a character taking one of the following values:

- apex
- chatterPost
- contentWorkspaceEnableFolders
- emailAlert
- emailSimple
- flow
- metricRefresh
- quickAction
- submit
- thanks
- thunderResponse
- createServiceReport
- deployOrchestration
- createResponseEventAction
- generateWorkOrders
- deactivateSessionPermSet
- activateSessionPermSet
- aggregateValue
- orchestrationTimer
- orchestrationDebugLog
- choosePricebook
- localAction

connector a FlowConnector

faultConnector a FlowConnector

inputParameters a FlowActionCallInputParameter

outputParameters a FlowActionCallOutputParameter

FlowActionCallInputParameter

processMetadataValues a FlowMetadataValue (inherited from FlowBaseElement)

name a character

value a FlowElementReferenceOrValue

FlowActionCallOutputParameter

processMetadataValues a FlowMetadataValue (inherited from FlowBaseElement)

assignToReference a character

name a character

FlowApexPluginCall

label a character (inherited from FlowNode)

locationX an integer (inherited from FlowNode)

locationY an integer (inherited from FlowNode)

apexClass a character

connector a FlowConnector

faultConnector a FlowConnector

inputParameters a FlowApexPluginCallInputParameter

outputParameters a FlowApexPluginCallOutputParameter

FlowApexPluginCallInputParameter

processMetadataValues a FlowMetadataValue (inherited from FlowBaseElement)

name a character

value a FlowElementReferenceOrValue

FlowApexPluginCallOutputParameter

processMetadataValues a FlowMetadataValue (inherited from FlowBaseElement)

assignToReference a character

name a character

FlowAssignment

label a character (inherited from FlowNode)

locationX an integer (inherited from FlowNode)

locationY an integer (inherited from FlowNode)

assignmentItems a FlowAssignmentItem

connector a FlowConnector

FlowAssignmentItem

processMetadataValues a FlowMetadataValue (inherited from FlowBaseElement)

assignToReference a character

operator a FlowAssignmentOperator - which is a character taking one of the following values:

- Assign
- Add
- Subtract
- AddItem

value a FlowElementReferenceOrValue

FlowBaseElement

processMetadataValues a FlowMetadataValue

FlowCategory

fullName a character (inherited from Metadata)

description a character

flowCategoryItems a FlowCategoryItems

masterLabel a character

FlowCategoryItems

flow a character

FlowChoice

description a character (inherited from FlowElement)

name a character (inherited from FlowElement)

choiceText a character

dataType a FlowDataType - which is a character taking one of the following values:

- Currency
- Date
- Number
- String
- Boolean
- SObject
- DateTime
- Picklist
- Multipicklist

userInput a FlowChoiceUserInput

value a FlowElementReferenceOrValue

FlowChoiceTranslation

choiceText a character

name a character

userInput a FlowChoiceUserInputTranslation

FlowChoiceUserInput

processMetadataValues a FlowMetadataValue (inherited from FlowBaseElement)

isRequired a character either 'true' or 'false'

promptText a character

validationRule a FlowInputValidationRule

FlowChoiceUserInputTranslation

promptText a character

validationRule a FlowInputValidationRuleTranslation

FlowCondition

processMetadataValues a FlowMetadataValue (inherited from FlowBaseElement)

leftValueReference a character

operator a FlowComparisonOperator - which is a character taking one of the following values:

- EqualTo
- NotEqualTo
- GreaterThan
- LessThan
- GreaterThanOrEqualTo
- LessThanOrEqualTo
- StartsWith
- EndsWith
- Contains
- IsNull
- WasSet
- WasSelected
- WasVisited

rightValue a FlowElementReferenceOrValue

FlowConnector

processMetadataValues a FlowMetadataValue (inherited from FlowBaseElement)

targetReference a character

FlowConstant

description a character (inherited from FlowElement)

name a character (inherited from FlowElement)

dataType a FlowDataType - which is a character taking one of the following values:

- Currency
- Date
- Number
- String
- Boolean
- SObject
- DateTime
- Picklist
- Multipicklist

value a FlowElementReferenceOrValue

FlowDecision

label a character (inherited from FlowNode)

locationX an integer (inherited from FlowNode)

locationY an integer (inherited from FlowNode)

defaultConnector a FlowConnector

defaultConnectorLabel a character

rules a FlowRule

FlowDefinition

fullName a character (inherited from Metadata)

activeVersionNumber an integer

description a character

masterLabel a character

FlowDefinitionTranslation

flows a FlowTranslation

fullName a character

label a character

FlowDynamicChoiceSet

description a character (inherited from FlowElement)

name a character (inherited from FlowElement)

dataType a FlowDataType - which is a character taking one of the following values:

- Currency

- Date
- Number
- String
- Boolean
- SObject
- DateTime
- Picklist
- Multipicklist

displayField a character

filters a FlowRecordFilter

limit an integer

object a character

outputAssignments a FlowOutputFieldAssignment

picklistField a character

picklistObject a character

sortField a character

sortOrder a SortOrder - which is a character taking one of the following values:

- Asc
- Desc

valueField a character

FlowElement

processMetadataValues a FlowMetadataValue (inherited from FlowBaseElement)

description a character

name a character

FlowElementReferenceOrValue

booleanValue a character either 'true' or 'false'

dateTimeValue a character formatted as 'yyyy-mm-ddThh:mm:ssZ'

dateValue a character formatted as 'yyyy-mm-dd'

elementReference a character

numberValue a numeric

stringValue a character

FlowFormula

description a character (inherited from FlowElement)

name a character (inherited from FlowElement)

dataType a FlowDataType - which is a character taking one of the following values:

- Currency

- Date
- Number
- String
- Boolean
- SObject
- DateTime
- Picklist
- Multipicklist

expression a character

scale an integer

FlowInputFieldAssignment

processMetadataValues a FlowMetadataValue (inherited from FlowBaseElement)

field a character

value a FlowElementReferenceOrValue

FlowInputValidationRule

errorMessage a character

formulaExpression a character

FlowInputValidationRuleTranslation

errorMessage a character

FlowLoop

label a character (inherited from FlowNode)

locationX an integer (inherited from FlowNode)

locationY an integer (inherited from FlowNode)

assignNextValueToReference a character

collectionReference a character

iterationOrder a IterationOrder - which is a character taking one of the following values:

- Asc
- Desc

nextValueConnector a FlowConnector

noMoreValuesConnector a FlowConnector

FlowMetadataValue

name a character

value a FlowElementReferenceOrValue

FlowNode

description a character (inherited from FlowElement)

name a character (inherited from FlowElement)

label a character

locationX an integer

locationY an integer

FlowOutputFieldAssignment

processMetadataValues a FlowMetadataValue (inherited from FlowBaseElement)

assignToReference a character

field a character

FlowRecordCreate

label a character (inherited from FlowNode)

locationX an integer (inherited from FlowNode)

locationY an integer (inherited from FlowNode)

assignRecordIdToReference a character

connector a FlowConnector

faultConnector a FlowConnector

inputAssignments a FlowInputFieldAssignment

inputReference a character

object a character

FlowRecordDelete

label a character (inherited from FlowNode)

locationX an integer (inherited from FlowNode)

locationY an integer (inherited from FlowNode)

connector a FlowConnector

faultConnector a FlowConnector

filters a FlowRecordFilter

inputReference a character

object a character

FlowRecordFilter

processMetadataValues a FlowMetadataValue (inherited from FlowBaseElement)

field a character

operator a FlowRecordFilterOperator - which is a character taking one of the following values:

- EqualTo
- NotEqualTo

- GreaterThan
- LessThan
- GreaterThanOrEqualTo
- LessThanOrEqualTo
- StartsWith
- EndsWith
- Contains
- IsNull

value a FlowElementReferenceOrValue

FlowRecordLookup

label a character (inherited from FlowNode)

locationX an integer (inherited from FlowNode)

locationY an integer (inherited from FlowNode)

assignNullValuesIfNoRecordsFound a character either 'true' or 'false'

connector a FlowConnector

faultConnector a FlowConnector

filters a FlowRecordFilter

object a character

outputAssignments a FlowOutputFieldAssignment

outputReference a character

queriedFields a character

sortField a character

sortOrder a SortOrder - which is a character taking one of the following values:

- Asc
- Desc

FlowRecordUpdate

label a character (inherited from FlowNode)

locationX an integer (inherited from FlowNode)

locationY an integer (inherited from FlowNode)

connector a FlowConnector

faultConnector a FlowConnector

filters a FlowRecordFilter

inputAssignments a FlowInputFieldAssignment

inputReference a character

object a character

FlowRule

description a character (inherited from FlowElement)

name a character (inherited from FlowElement)

conditionLogic a character

conditions a FlowCondition

connector a FlowConnector

label a character

FlowScreen

label a character (inherited from FlowNode)

locationX an integer (inherited from FlowNode)

locationY an integer (inherited from FlowNode)

allowBack a character either 'true' or 'false'

allowFinish a character either 'true' or 'false'

allowPause a character either 'true' or 'false'

connector a FlowConnector

fields a FlowScreenField

helpText a character

pausedText a character

rules a FlowScreenRule

showFooter a character either 'true' or 'false'

showHeader a character either 'true' or 'false'

FlowScreenField

description a character (inherited from FlowElement)

name a character (inherited from FlowElement)

choiceReferences a character

dataType a FlowDataType - which is a character taking one of the following values:

- Currency
- Date
- Number
- String
- Boolean
- SObject
- DateTime
- Picklist
- Multipicklist

defaultSelectedChoiceReference a character

defaultValue a FlowElementReferenceOrValue

extensionName a character

fieldText a character

fieldType a FlowScreenFieldType - which is a character taking one of the following values:

- DisplayText
- InputField
- LargeTextArea
- PasswordField
- RadioButtons
- DropdownBox
- MultiSelectCheckboxes
- MultiSelectPicklist
- ComponentInstance

helpText a character

inputParameters a FlowScreenFieldInputParameter

isRequired a character either 'true' or 'false'

isVisible a character either 'true' or 'false'

outputParameters a FlowScreenFieldOutputParameter

scale an integer

validationRule a FlowInputValidationRule

FlowScreenFieldInputParameter

processMetadataValues a FlowMetadataValue (inherited from FlowBaseElement)

name a character

value a FlowElementReferenceOrValue

FlowScreenFieldOutputParameter

processMetadataValues a FlowMetadataValue (inherited from FlowBaseElement)

assignToReference a character

name a character

FlowScreenFieldTranslation

fieldText a character

helpText a character

name a character

validationRule a FlowInputValidationRuleTranslation

FlowScreenRule

processMetadataValues a FlowMetadataValue (inherited from FlowBaseElement)

conditionLogic a character

conditions a FlowCondition

label a character

ruleActions a FlowScreenRuleAction

FlowScreenRuleAction

processMetadataValues a FlowMetadataValue (inherited from FlowBaseElement)

attribute a character

fieldReference a character

value a FlowElementReferenceOrValue

FlowScreenTranslation

fields a FlowScreenFieldTranslation

helpText a character

name a character

pausedText a character

FlowStage

description a character (inherited from FlowElement)

name a character (inherited from FlowElement)

isActive a character either 'true' or 'false'

label a character

stageOrder an integer

FlowStep

label a character (inherited from FlowNode)

locationX an integer (inherited from FlowNode)

locationY an integer (inherited from FlowNode)

connectors a FlowConnector

FlowSubflow

label a character (inherited from FlowNode)

locationX an integer (inherited from FlowNode)

locationY an integer (inherited from FlowNode)

connector a FlowConnector

flowName a character

inputAssignments a FlowSubflowInputAssignment

outputAssignments a FlowSubflowOutputAssignment

FlowSubflowInputAssignment

processMetadataValues a FlowMetadataValue (inherited from FlowBaseElement)

name a character

value a FlowElementReferenceOrValue

FlowSubflowOutputAssignment

processMetadataValues a FlowMetadataValue (inherited from FlowBaseElement)

assignToReference a character

name a character

FlowTextTemplate

description a character (inherited from FlowElement)

name a character (inherited from FlowElement)

text a character

FlowTranslation

choices a FlowChoiceTranslation

fullName a character

label a character

screens a FlowScreenTranslation

FlowVariable

description a character (inherited from FlowElement)

name a character (inherited from FlowElement)

dataType a FlowDataType - which is a character taking one of the following values:

- Currency
- Date
- Number
- String
- Boolean
- SObject
- DateTime
- Picklist
- Multipicklist

isCollection a character either 'true' or 'false'

isInput a character either 'true' or 'false'

isOutput a character either 'true' or 'false'

objectType a character

scale an integer

value a FlowElementReferenceOrValue

FlowWait

label a character (inherited from FlowNode)

locationX an integer (inherited from FlowNode)

locationY an integer (inherited from FlowNode)

defaultConnector a FlowConnector

defaultConnectorLabel a character

faultConnector a FlowConnector

waitEvents a FlowWaitEvent

FlowWaitEvent

description a character (inherited from FlowElement)

name a character (inherited from FlowElement)

conditionLogic a character

conditions a FlowCondition

connector a FlowConnector

eventType a character

inputParameters a FlowWaitEventInputParameter

label a character

outputParameters a FlowWaitEventOutputParameter

FlowWaitEventInputParameter

processMetadataValues a FlowMetadataValue (inherited from FlowBaseElement)

name a character

value a FlowElementReferenceOrValue

FlowWaitEventOutputParameter

processMetadataValues a FlowMetadataValue (inherited from FlowBaseElement)

assignToReference a character

name a character

Folder

fullName a character (inherited from Metadata)

accessType a FolderAccessTypes - which is a character taking one of the following values:

- Shared
- Public
- Hidden
- PublicInternal

folderShares a FolderShare

name a character

publicFolderAccess a PublicFolderAccess - which is a character taking one of the following values:

- ReadOnly
- ReadWrite

sharedTo a SharedTo

FolderShare

accessLevel a FolderShareAccessLevel - which is a character taking one of the following values:

- View
- EditAllContents
- Manage

sharedTo a character

sharedToType a FolderSharedToType - which is a character taking one of the following values:

- Group
- Role
- RoleAndSubordinates
- RoleAndSubordinatesInternal
- Manager
- ManagerAndSubordinatesInternal
- Organization
- Territory
- TerritoryAndSubordinates
- AllPrmUsers
- User
- PartnerUser
- AllCspUsers
- CustomerPortalUser
- PortalRole
- PortalRoleAndSubordinates
- ChannelProgramGroup

ForecastingCategoryMapping

forecastingItemCategoryApiName a character

weightedSourceCategories a WeightedSourceCategory

ForecastingDisplayedFamilySettings

productFamily a character

ForecastingSettings

fullName a character (inherited from Metadata)

displayCurrency a DisplayCurrency - which is a character taking one of the following values:

- CORPORATE
- PERSONAL

enableForecasts a character either 'true' or 'false'

forecastingCategoryMappings a ForecastingCategoryMapping

forecastingDisplayedFamilySettings a ForecastingDisplayedFamilySettings

forecastingTypeSettings a ForecastingTypeSettings

ForecastingTypeSettings

active a character either 'true' or 'false'

adjustmentsSettings a AdjustmentsSettings

displayedCategoryApiNames a character

forecastRangeSettings a ForecastRangeSettings

forecastedCategoryApiNames a character

forecastingDateType a ForecastingDateType - which is a character taking one of the following values:

- OpportunityCloseDate
- ProductDate
- ScheduleDate

hasProductFamily a character either 'true' or 'false'

isAmount a character either 'true' or 'false'

isAvailable a character either 'true' or 'false'

isQuantity a character either 'true' or 'false'

managerAdjustableCategoryApiNames a character

masterLabel a character

name a character

opportunityListFieldsLabelMappings a OpportunityListFieldsLabelMapping

opportunityListFieldsSelectedSettings a OpportunityListFieldsSelectedSettings

opportunityListFieldsUnselectedSettings a OpportunityListFieldsUnselectedSettings

opportunitySplitName a character

ownerAdjustableCategoryApiNames a character

quotasSettings a QuotasSettings

territory2ModelName a character

ForecastRangeSettings

beginning an integer

displaying an integer

periodType a PeriodTypes - which is a character taking one of the following values:

- Month

- Quarter
- Week
- Year

GlobalPicklistValue

fullName a character (inherited from Metadata)

color a character

default a character either 'true' or 'false'

description a character

isActive a character either 'true' or 'false'

GlobalQuickActionTranslation

label a character

name a character

GlobalValueSet

fullName a character (inherited from Metadata)

customValue a CustomValue

description a character

masterLabel a character

sorted a character either 'true' or 'false'

GlobalValueSetTranslation

fullName a character (inherited from Metadata)

valueTranslation a ValueTranslation

Group

fullName a character (inherited from Metadata)

doesIncludeBosses a character either 'true' or 'false'

name a character

HistoryRetentionPolicy

archiveAfterMonths an integer

archiveRetentionYears an integer

description a character

Holiday

activityDate a character formatted as 'yyyy-mm-dd'

businessHours a character

description a character
endTime a character formatted as 'hh:mm:ssZ'
isRecurring a character either 'true' or 'false'
name a character
recurrenceDayOfMonth an integer
recurrenceDayOfWeek a character
recurrenceDayOfWeekMask an integer
recurrenceEndDate a character formatted as 'yyyy-mm-dd'
recurrenceInstance a character
recurrenceInterval an integer
recurrenceMonthOfYear a character
recurrenceStartDate a character formatted as 'yyyy-mm-dd'
recurrenceType a character
startTime a character formatted as 'hh:mm:ssZ'

HomePageComponent

fullName a character (inherited from Metadata)
body a character
height an integer
links a character
page a character
pageComponentType a PageComponentType - which is a character taking one of the following values:

- links
- htmlArea
- imageOrNote
- visualforcePage

showLabel a character either 'true' or 'false'
showScrollbars a character either 'true' or 'false'
width a PageComponentWidth - which is a character taking one of the following values:

- narrow
- wide

HomePageLayout

fullName a character (inherited from Metadata)
narrowComponents a character
wideComponents a character

IdeaReputationLevel

name a character

value an integer

IdeasSettings

fullName a character (inherited from Metadata)

enableChatterProfile a character either 'true' or 'false'

enableIdeaThemes a character either 'true' or 'false'

enableIdeas a character either 'true' or 'false'

enableIdeasReputation a character either 'true' or 'false'

halfLife a numeric

ideasProfilePage a character

Index

fullName a character (inherited from Metadata)

fields a IndexField

label a character

IndexField

name a character

sortDirection a character

InsightType

fullName a character (inherited from Metadata)

defaultTrendType a InsightTrendType - which is a character taking one of the following values:

- Positive
- Negative
- Informational
- Suggestion

description a character

isProtected a character either 'true' or 'false'

masterLabel a character

parentType a InsightParentType - which is a character taking one of the following values:

- Opportunity
- Account

title a character

InstalledPackage

fullName a character (inherited from Metadata)

password a character

versionNumber a character

IntegrationHubSettings

fullName a character (inherited from Metadata)

canonicalName a character

canonicalNameBindingChar a character

description a character

isEnabled a character either 'true' or 'false'

isProtected a character either 'true' or 'false'

masterLabel a character

setupData a character

setupDefinition a character

setupNamespace a character

setupSimpleName a character

uUID a character

version a character

versionBuild an integer

versionMajor an integer

versionMinor an integer

IntegrationHubSettingsType

fullName a character (inherited from Metadata)

canonicalName a character

canonicalNameBindingChar a character

description a character

isEnabled a character either 'true' or 'false'

isProtected a character either 'true' or 'false'

masterLabel a character

setupNamespace a character

setupSimpleName a character

uUID a character

version a character

versionBuild an integer

versionMajor an integer

versionMinor an integer

IpRange

description a character

end a character

start a character

KeyboardShortcuts

customShortcuts a CustomShortcut

defaultShortcuts a DefaultShortcut

Keyword

keyword a character

KeywordList

fullName a character (inherited from Metadata)

description a character

keywords a Keyword

masterLabel a character

KnowledgeAnswerSettings

assignTo a character

defaultArticleType a character

enableArticleCreation a character either 'true' or 'false'

KnowledgeCaseField

name a character

KnowledgeCaseFieldsSettings

field a KnowledgeCaseField

KnowledgeCaseSettings

articlePDFCreationProfile a character

articlePublicSharingCommunities a KnowledgeCommunitiesSettings

articlePublicSharingSites a KnowledgeSitesSettings

articlePublicSharingSitesChatterAnswers a KnowledgeSitesSettings

assignTo a character

customizationClass a character

defaultContributionArticleType a character

editor a KnowledgeCaseEditor - which is a character taking one of the following values:

- simple
- standard

enableArticleCreation a character either 'true' or 'false'

enableArticlePublicSharingSites a character either 'true' or 'false'

enableCaseDataCategoryMapping a character either 'true' or 'false'

useProfileForPDFCreation a character either 'true' or 'false'

KnowledgeCommunitiesSettings

community a character

KnowledgeLanguage

active a character either 'true' or 'false'

defaultAssignee a character

defaultAssigneeType a KnowledgeLanguageLookupValueType - which is a character taking one of the following values:

- User
- Queue

defaultReviewer a character

defaultReviewerType a KnowledgeLanguageLookupValueType - which is a character taking one of the following values:

- User
- Queue

name a character

KnowledgeLanguageSettings

language a KnowledgeLanguage

KnowledgeSettings

fullName a character (inherited from Metadata)

answers a KnowledgeAnswerSettings

cases a KnowledgeCaseSettings

defaultLanguage a character

enableChatterQuestionKBDeflection a character either 'true' or 'false'

enableCreateEditOnArticlesTab a character either 'true' or 'false'

enableExternalMediaContent a character either 'true' or 'false'

enableKnowledge a character either 'true' or 'false'

enableLightningKnowledge a character either 'true' or 'false'

languages a KnowledgeLanguageSettings

showArticleSummariesCustomerPortal a character either 'true' or 'false'

showArticleSummariesInternalApp a character either 'true' or 'false'

showArticleSummariesPartnerPortal a character either 'true' or 'false'

showValidationStatusField a character either 'true' or 'false'

suggestedArticles a KnowledgeSuggestedArticlesSettings

KnowledgeSitesSettings

site a character

KnowledgeSuggestedArticlesSettings

caseFields a KnowledgeCaseFieldsSettings

useSuggestedArticlesForCase a character either 'true' or 'false'

workOrderFields a KnowledgeWorkOrderFieldsSettings

workOrderLineItemFields a KnowledgeWorkOrderLineItemFieldsSettings

KnowledgeWorkOrderField

name a character

KnowledgeWorkOrderFieldsSettings

field a KnowledgeWorkOrderField

KnowledgeWorkOrderLineItemField

name a character

KnowledgeWorkOrderLineItemFieldsSettings

field a KnowledgeWorkOrderLineItemField

Layout

fullName a character (inherited from Metadata)

customButtons a character

customConsoleComponents a CustomConsoleComponents

emailDefault a character either 'true' or 'false'

excludeButtons a character

feedLayout a FeedLayout

headers a LayoutHeader - which is a character taking one of the following values:

- PersonalTagging
- PublicTagging

layoutSections a LayoutSection

miniLayout a MiniLayout

multilineLayoutFields a character

platformActionList a PlatformActionList

quickActionList a QuickActionList

relatedContent a RelatedContent

relatedLists a RelatedListItem
relatedObjects a character
runAssignmentRulesDefault a character either 'true' or 'false'
showEmailCheckbox a character either 'true' or 'false'
showHighlightsPanel a character either 'true' or 'false'
showInteractionLogPanel a character either 'true' or 'false'
showKnowledgeComponent a character either 'true' or 'false'
showRunAssignmentRulesCheckbox a character either 'true' or 'false'
showSolutionSection a character either 'true' or 'false'
showSubmitAndAttachButton a character either 'true' or 'false'
summaryLayout a SummaryLayout

LayoutColumn

layoutItems a LayoutItem
reserved a character

LayoutItem

analyticsCloudComponent a AnalyticsCloudComponentLayoutItem
behavior a UiBehavior - which is a character taking one of the following values:

- Edit
- Required
- Readonly

canvas a character
component a character
customLink a character
emptySpace a character either 'true' or 'false'
field a character
height an integer
page a character
reportChartComponent a ReportChartComponentLayoutItem
scontrol a character
showLabel a character either 'true' or 'false'
showScrollbars a character either 'true' or 'false'
width a character

LayoutSection

customLabel a character either 'true' or 'false'
detailHeading a character either 'true' or 'false'

editHeading a character either 'true' or 'false'

label a character

layoutColumns a LayoutColumn

style a LayoutSectionStyle - which is a character taking one of the following values:

- TwoColumnsTopToBottom
- TwoColumnsLeftToRight
- OneColumn
- CustomLinks

LayoutSectionTranslation

label a character

section a character

LayoutTranslation

layout a character

layoutType a character

sections a LayoutSectionTranslation

LeadConvertSettings

fullName a character (inherited from Metadata)

allowOwnerChange a character either 'true' or 'false'

objectMapping a ObjectMapping

opportunityCreationOptions a VisibleOrRequired - which is a character taking one of the following values:

- VisibleOptional
- VisibleRequired
- NotVisible

Letterhead

fullName a character (inherited from Metadata)

available a character either 'true' or 'false'

backgroundColor a character

bodyColor a character

bottomLine a LetterheadLine

description a character

footer a LetterheadHeaderFooter

header a LetterheadHeaderFooter

middleLine a LetterheadLine

name a character

topLine a LetterheadLine

LetterheadHeaderFooter

backgroundColor a character

height an integer

horizontalAlignment a LetterheadHorizontalAlignment - which is a character taking one of the following values:

- None
- Left
- Center
- Right

logo a character

verticalAlignment a LetterheadVerticalAlignment - which is a character taking one of the following values:

- None
- Top
- Middle
- Bottom

LetterheadLine

color a character

height an integer

LicensedCustomPermissions

customPermission a character

licenseDefinition a character

LicenseDefinition

fullName a character (inherited from Metadata)

aggregationGroup a character

description a character

isPublished a character either 'true' or 'false'

label a character

licensedCustomPermissions a LicensedCustomPermissions

licensingAuthority a character

licensingAuthorityProvider a character

minPlatformVersion an integer

origin a character

revision an integer

trialLicenseDuration an integer

trialLicenseQuantity an integer

LightningBolt

fullName a character (inherited from Metadata)

category a LightningBoltCategory - which is a character taking one of the following values:

- IT
- Marketing
- Sales
- Service

lightningBoltFeatures a LightningBoltFeatures

lightningBoltImages a LightningBoltImages

lightningBoltItems a LightningBoltItems

masterLabel a character

publisher a character

summary a character

LightningBoltFeatures

description a character

order an integer

title a character

LightningBoltImages

image a character

order an integer

LightningBoltItems

name a character

type a character

LightningComponentBundle

fullName a character (inherited from Metadata)

apiVersion a numeric

isExposed a character either 'true' or 'false'

LightningExperienceTheme

fullName a character (inherited from Metadata)

defaultBrandingSet a character

description a character

masterLabel a character

shouldOverrideLoadingImage a character either 'true' or 'false'

ListMetadataQuery

folder a character

type a character

ListPlacement

height an integer

location a character

units a character

width an integer

ListView

fullName a character (inherited from Metadata)

booleanFilter a character

columns a character

division a character

filterScope a FilterScope - which is a character taking one of the following values:

- Everything
- Mine
- Queue
- Delegated
- MyTerritory
- MyTeamTerritory
- Team
- AssignedToMe

filters a ListViewFilter

label a character

language a Language - which is a character taking one of the following values:

- en_US
- de
- es
- fr
- it
- ja
- sv
- ko
- zh_TW
- zh_CN

- pt_BR
- nl_NL
- da
- th
- fi
- ru
- es_MX
- no
- hu
- pl
- cs
- tr
- in
- ro
- vi
- uk
- iw
- el
- bg
- en_GB
- ar
- sk
- pt_PT
- hr
- sl
- fr_CA
- ka
- sr
- sh
- en_AU
- en_MY
- en_IN
- en_PH
- en_CA
- ro_MD
- bs
- mk
- lv
- lt
- et
- sq
- sh_ME

- mt
- ga
- eu
- cy
- is
- ms
- tl
- lb
- rm
- hy
- hi
- ur
- bn
- de_AT
- de_CH
- ta
- ar_DZ
- ar_BH
- ar_EG
- ar_IQ
- ar_JO
- ar_KW
- ar_LB
- ar_LY
- ar_MA
- ar_OM
- ar_QA
- ar_SA
- ar_SD
- ar_SY
- ar_TN
- ar_AE
- ar_YE
- zh_SG
- zh_HK
- en_HK
- en_IE
- en_SG
- en_ZA
- fr_BE
- fr_LU
- fr_CH

- de_BE
- de_LU
- it_CH
- nl_BE
- es_AR
- es_BO
- es_CL
- es_CO
- es_CR
- es_DO
- es_EC
- es_SV
- es_GT
- es_HN
- es_NI
- es_PA
- es_PY
- es_PE
- es_PR
- es_US
- es_UY
- es_VE
- ca
- eo
- iw_EO

queue a character

sharedTo a SharedTo

ListViewFilter

field a character

operation a FilterOperation - which is a character taking one of the following values:

- equals
- notEqual
- lessThan
- greaterThan
- lessOrEqual
- greaterOrEqual
- contains
- notContain
- startsWith
- includes

- excludes
- within

value a character

LiveAgentConfig

enableLiveChat a character either 'true' or 'false'

openNewAccountSubtab a character either 'true' or 'false'

openNewCaseSubtab a character either 'true' or 'false'

openNewContactSubtab a character either 'true' or 'false'

openNewLeadSubtab a character either 'true' or 'false'

openNewVFPagesubtab a character either 'true' or 'false'

pageNamesToOpen a character

showKnowledgeArticles a character either 'true' or 'false'

LiveAgentSettings

fullName a character (inherited from Metadata)

enableLiveAgent a character either 'true' or 'false'

LiveChatAgentConfig

fullName a character (inherited from Metadata)

assignments a AgentConfigAssignments

autoGreeting a character

capacity an integer

criticalWaitTime an integer

customAgentName a character

enableAgentFileTransfer a character either 'true' or 'false'

enableAgentSneakPeek a character either 'true' or 'false'

enableAssistanceFlag a character either 'true' or 'false'

enableAutoAwayOnDecline a character either 'true' or 'false'

enableAutoAwayOnPushTimeout a character either 'true' or 'false'

enableChatConferencing a character either 'true' or 'false'

enableChatMonitoring a character either 'true' or 'false'

enableChatTransferToAgent a character either 'true' or 'false'

enableChatTransferToButton a character either 'true' or 'false'

enableChatTransferToSkill a character either 'true' or 'false'

enableLogoutSound a character either 'true' or 'false'

enableNotifications a character either 'true' or 'false'

enableRequestSound a character either 'true' or 'false'

enableSneakPeek a character either 'true' or 'false'

enableVisitorBlocking a character either 'true' or 'false'

enableWhisperMessage a character either 'true' or 'false'

label a character

supervisorDefaultAgentStatusFilter a SupervisorAgentStatusFilter - which is a character taking one of the following values:

- Online
- Away
- Offline

supervisorDefaultButtonFilter a character

supervisorDefaultSkillFilter a character

supervisorSkills a SupervisorAgentConfigSkills

transferableButtons a AgentConfigButtons

transferableSkills a AgentConfigSkills

LiveChatButton

fullName a character (inherited from Metadata)

animation a LiveChatButtonPresentation - which is a character taking one of the following values:

- Slide
- Fade
- Appear
- Custom

autoGreeting a character

chastitorIdleTimeout an integer

chastitorIdleTimeoutWarning an integer

chatPage a character

customAgentName a character

deployments a LiveChatButtonDeployments

enableQueue a character either 'true' or 'false'

inviteEndPosition a LiveChatButtonInviteEndPosition - which is a character taking one of the following values:

- TopLeft
- Top
- TopRight
- Left
- Center
- Right
- BottomLeft
- Bottom

- BottomRight

inviteImage a character

inviteStartPosition a LiveChatButtonInviteStartPosition - which is a character taking one of the following values:

- TopLeft
- TopLeftTop
- Top
- TopRightTop
- TopRight
- TopRightRight
- Right
- BottomRightRight
- BottomRight
- BottomRightBottom
- Bottom
- BottomLeftBottom
- BottomLeft
- BottomLeftLeft
- Left
- TopLeftLeft

isActive a character either 'true' or 'false'

label a character

numberOfReroutingAttempts an integer

offlineImage a character

onlineImage a character

optionsCustomRoutingIsEnabled a character either 'true' or 'false'

optionsHasChasitorIdleTimeout a character either 'true' or 'false'

optionsHasInviteAfterAccept a character either 'true' or 'false'

optionsHasInviteAfterReject a character either 'true' or 'false'

optionsHasRerouteDeclinedRequest a character either 'true' or 'false'

optionsIsAutoAccept a character either 'true' or 'false'

optionsIsInviteAutoRemove a character either 'true' or 'false'

overallQueueLength an integer

perAgentQueueLength an integer

postChatPage a character

postChatUrl a character

preChatFormPage a character

preChatFormUrl a character

pushTimeOut an integer

routingType a LiveChatButtonRoutingType - which is a character taking one of the following values:

- Choice
- LeastActive
- MostAvailable

site a character

skills a LiveChatButtonSkills

timeToRemoveInvite an integer

type a LiveChatButtonType - which is a character taking one of the following values:

- Standard
- Invite

windowLanguage a Language - which is a character taking one of the following values:

- en_US
- de
- es
- fr
- it
- ja
- sv
- ko
- zh_TW
- zh_CN
- pt_BR
- nl_NL
- da
- th
- fi
- ru
- es_MX
- no
- hu
- pl
- cs
- tr
- in
- ro
- vi
- uk
- iw
- el
- bg

- en_GB
- ar
- sk
- pt_PT
- hr
- sl
- fr_CA
- ka
- sr
- sh
- en_AU
- en_MY
- en_IN
- en_PH
- en_CA
- ro_MD
- bs
- mk
- lv
- lt
- et
- sq
- sh_ME
- mt
- ga
- eu
- cy
- is
- ms
- tl
- lb
- rm
- hy
- hi
- ur
- bn
- de_AT
- de_CH
- ta
- ar_DZ
- ar_BH
- ar_EG

- ar_IQ
- ar_JO
- ar_KW
- ar_LB
- ar_LY
- ar_MA
- ar_OM
- ar_QA
- ar_SA
- ar_SD
- ar_SY
- ar_TN
- ar_AE
- ar_YE
- zh_SG
- zh_HK
- en_HK
- en_IE
- en_SG
- en_ZA
- fr_BE
- fr_LU
- fr_CH
- de_BE
- de_LU
- it_CH
- nl_BE
- es_AR
- es_BO
- es_CL
- es_CO
- es_CR
- es_DO
- es_EC
- es_SV
- es_GT
- es_HN
- es_NI
- es_PA
- es_PY
- es_PE
- es_PR

- es_US
- es_UY
- es_VE
- ca
- eo
- iw_EO

LiveChatButtonDeployments

deployment a character

LiveChatButtonSkills

skill a character

LiveChatDeployment

fullName a character (inherited from Metadata)

brandingImage a character

connectionTimeoutDuration an integer

connectionWarningDuration an integer

displayQueuePosition a character either 'true' or 'false'

domainWhiteList a LiveChatDeploymentDomainWhitelist

enablePrechatApi a character either 'true' or 'false'

enableTranscriptSave a character either 'true' or 'false'

label a character

mobileBrandingImage a character

site a character

windowTitle a character

LiveChatDeploymentDomainWhitelist

domain a character

LiveChatSensitiveDataRule

fullName a character (inherited from Metadata)

actionType a SensitiveDataActionType - which is a character taking one of the following values:

- Remove
- Replace

description a character

enforceOn an integer

isEnabled a character either 'true' or 'false'

pattern a character

replacement a character

LiveMessageSettings

fullName a character (inherited from Metadata)

enableLiveMessage a character either 'true' or 'false'

LogInfo

category a LogCategory - which is a character taking one of the following values:

- Db
- Workflow
- Validation
- Callout
- Apex_code
- Apex_profiling
- Visualforce
- System
- Wave
- All

level a LogCategoryLevel - which is a character taking one of the following values:

- None
- Finest
- Finer
- Fine
- Debug
- Info
- Warn
- Error

LookupFilter

active a character either 'true' or 'false'

booleanFilter a character

description a character

errorMessage a character

filterItems a FilterItem

infoMessage a character

isOptional a character either 'true' or 'false'

LookupFilterTranslation

errorMessage a character

informationalMessage a character

MacroSettings

fullName a character (inherited from Metadata)

enableAdvancedSearch a character either 'true' or 'false'

ManagedTopic

fullName a character (inherited from Metadata)

managedTopicType a character

name a character

parentName a character

position an integer

topicDescription a character

ManagedTopics

fullName a character (inherited from Metadata)

managedTopic a ManagedTopic

MarketingActionSettings

fullName a character (inherited from Metadata)

enableMarketingAction a character either 'true' or 'false'

MarketingResourceType

fullName a character (inherited from Metadata)

description a character

masterLabel a character

object a character

provider a character

MatchingRule

fullName a character (inherited from Metadata)

booleanFilter a character

description a character

label a character

matchingRuleItems a MatchingRuleItem

ruleStatus a MatchingRuleStatus - which is a character taking one of the following values:

- Inactive
- DeactivationFailed
- Activating
- Deactivating
- Active

- ActivationFailed

MatchingRuleItem

blankValueBehavior a BlankValueBehavior - which is a character taking one of the following values:

- MatchBlanks
- NullNotAllowed

fieldName a character

matchingMethod a MatchingMethod - which is a character taking one of the following values:

- Exact
- FirstName
- LastName
- CompanyName
- Phone
- City
- Street
- Zip
- Title

MatchingRules

fullName a character (inherited from Metadata)

matchingRules a MatchingRule

Metadata

fullName a character

MetadataWithContent

fullName a character (inherited from Metadata)

content a character formed using [base64encode](#)

MilestoneType

fullName a character (inherited from Metadata)

description a character

recurrenceType a MilestoneTypeRecurrenceType - which is a character taking one of the following values:

- none
- recursIndependently
- recursChained

MiniLayout

fields a character

relatedLists a RelatedListItem

MobileSettings

fullName a character (inherited from Metadata)

chatterMobile a ChatterMobileSettings

dashboardMobile a DashboardMobileSettings

salesforceMobile a SFDCMobileSettings

touchMobile a TouchMobileSettings

ModeratedEntityField

entityName a character

fieldName a character

keywordList a character

ModerationRule

fullName a character (inherited from Metadata)

action a ModerationRuleAction - which is a character taking one of the following values:

- Block
- FreezeAndNotify
- Review
- Replace
- Flag

actionLimit an integer

active a character either 'true' or 'false'

description a character

entitiesAndFields a ModeratedEntityField

masterLabel a character

notifyLimit an integer

timePeriod a RateLimitTimePeriod - which is a character taking one of the following values:

- Short
- Medium

type a ModerationRuleType - which is a character taking one of the following values:

- Content
- Rate

userCriteria a character

userMessage a character

NamedCredential

fullName a character (inherited from Metadata)
allowMergeFieldsInBody a character either 'true' or 'false'
allowMergeFieldsInHeader a character either 'true' or 'false'
authProvider a character
certificate a character
endpoint a character
generateAuthorizationHeader a character either 'true' or 'false'
label a character
oauthRefreshToken a character
oauthScope a character
oauthToken a character
password a character
principalType a ExternalPrincipalType - which is a character taking one of the following values:

- Anonymous
- PerUser
- NamedUser

protocol a AuthenticationProtocol - which is a character taking one of the following values:

- NoAuthentication
- Oauth
- Password

username a character

NameSettings

fullName a character (inherited from Metadata)
enableMiddleName a character either 'true' or 'false'
enableNameSuffix a character either 'true' or 'false'

NavigationLinkSet

navigationMenuItem a NavigationMenuItem

NavigationMenuItem

defaultListViewId a character
label a character
position an integer
publiclyAvailable a character either 'true' or 'false'
subMenu a NavigationSubMenu
target a character
targetPreference a character

type a character

NavigationSubMenu

navigationMenuItem a NavigationMenuItem

Network

fullName a character (inherited from Metadata)

allowInternalUserLogin a character either 'true' or 'false'

allowMembersToFlag a character either 'true' or 'false'

allowedExtensions a character

caseCommentEmailTemplate a character

changePasswordTemplate a character

communityRoles a CommunityRoles

description a character

disableReputationRecordConversations a character either 'true' or 'false'

emailFooterLogo a character

emailFooterText a character

emailSenderAddress a character

emailSenderName a character

enableCustomVFEErrorPageOverrides a character either 'true' or 'false'

enableDirectMessages a character either 'true' or 'false'

enableGuestChatter a character either 'true' or 'false'

enableGuestFileAccess a character either 'true' or 'false'

enableInvitation a character either 'true' or 'false'

enableKnowledgeable a character either 'true' or 'false'

enableNicknameDisplay a character either 'true' or 'false'

enablePrivateMessages a character either 'true' or 'false'

enableReputation a character either 'true' or 'false'

enableShowAllNetworkSettings a character either 'true' or 'false'

enableSiteAsContainer a character either 'true' or 'false'

enableTalkingAboutStats a character either 'true' or 'false'

enableTopicAssignmentRules a character either 'true' or 'false'

enableTopicSuggestions a character either 'true' or 'false'

enableUpDownVote a character either 'true' or 'false'

feedChannel a character

forgotPasswordTemplate a character

gatherCustomerSentimentData a character either 'true' or 'false'

logoutUrl a character

maxFileSizeKb an integer

navigationLinkSet a NavigationLinkSet

networkMemberGroups a NetworkMemberGroup

networkPageOverrides a NetworkPageOverride

newSenderAddress a character

picassoSite a character

recommendationAudience a RecommendationAudience

recommendationDefinition a RecommendationDefinition

reputationLevels a ReputationLevelDefinitions

reputationPointsRules a ReputationPointsRules

selfRegProfile a character

selfRegistration a character either 'true' or 'false'

sendWelcomeEmail a character either 'true' or 'false'

site a character

status a NetworkStatus - which is a character taking one of the following values:

- UnderConstruction
- Live
- DownForMaintenance

tabs a NetworkTabSet

urlPathPrefix a character

welcomeTemplate a character

NetworkAccess

ipRanges a IpRange

NetworkBranding

content a character formed using [base64encode](#) (inherited from MetadataWithContent)

loginFooterText a character

loginLogo a character

loginLogoName a character

loginPrimaryColor a character

loginQuaternaryColor a character

loginRightFrameUrl a character

network a character

pageFooter a character

pageHeader a character

primaryColor a character

primaryComplementColor a character

quaternaryColor a character
quaternaryComplementColor a character
secondaryColor a character
staticLogoImageUrl a character
tertiaryColor a character
tertiaryComplementColor a character
zeronaryColor a character
zeronaryComplementColor a character

NetworkMemberGroup

permissionSet a character
profile a character

NetworkPageOverride

changePasswordPageOverrideSetting a NetworkPageOverrideSetting - which is a character taking one of the following values:

- Designer
- VisualForce
- Standard

forgotPasswordPageOverrideSetting a NetworkPageOverrideSetting - which is a character taking one of the following values:

- Designer
- VisualForce
- Standard

homePageOverrideSetting a NetworkPageOverrideSetting - which is a character taking one of the following values:

- Designer
- VisualForce
- Standard

loginPageOverrideSetting a NetworkPageOverrideSetting - which is a character taking one of the following values:

- Designer
- VisualForce
- Standard

selfRegProfilePageOverrideSetting a NetworkPageOverrideSetting - which is a character taking one of the following values:

- Designer
- VisualForce
- Standard

NetworkTabSet

customTab a character

defaultTab a character

standardTab a character

NextAutomatedApprover

useApproverFieldOfRecordOwner a character either 'true' or 'false'

userHierarchyField a character

ObjectMapping

inputObject a character

mappingFields a ObjectMappingField

outputObject a character

ObjectMappingField

inputField a character

outputField a character

ObjectNameCaseValue

article a Article - which is a character taking one of the following values:

- None
- Indefinite
- Definite

caseType a CaseType - which is a character taking one of the following values:

- Nominative
- Accusative
- Genitive
- Dative
- Inessive
- Elative
- Illative
- Adessive
- Ablative
- Allative
- Essive
- Translative
- Partitive
- Objective
- Subjective
- Instrumental
- Prepositional

- Locative
- Vocative
- Sublative
- Superessive
- Delative
- Causalfinal
- Essiveformal
- Termanative
- Distributive
- Ergative
- Adverbial
- Abessive
- Comitative

plural a character either 'true' or 'false'

possessive a Possessive - which is a character taking one of the following values:

- None
- First
- Second

value a character

ObjectRelationship

join a ObjectRelationship

outerJoin a character either 'true' or 'false'

relationship a character

ObjectSearchSetting

enhancedLookupEnabled a character either 'true' or 'false'

lookupAutoCompleteEnabled a character either 'true' or 'false'

name a character

resultsPerPageCount an integer

ObjectUsage

object a character

OpportunityListFieldsLabelMapping

field a character

label a character

OpportunityListFieldsSelectedSettings

field a character

OpportunityListFieldsUnselectedSettings

field a character

OpportunitySettings

fullName a character (inherited from Metadata)

autoActivateNewReminders a character either 'true' or 'false'

enableFindSimilarOpportunities a character either 'true' or 'false'

enableOpportunityTeam a character either 'true' or 'false'

enableUpdateReminders a character either 'true' or 'false'

findSimilarOppFilter a FindSimilarOppFilter

promptToAddProducts a character either 'true' or 'false'

Orchestration

content a character formed using [base64encode](#) (inherited from MetadataWithContent)

context a character

masterLabel a character

OrchestrationContext

fullName a character (inherited from Metadata)

description a character

events a OrchestrationContextEvent

masterLabel a character

runtimeType a character

salesforceObject a character

salesforceObjectPrimaryKey a character

OrchestrationContextEvent

eventType a character

orchestrationEvent a character

platformEvent a character

platformEventPrimaryKey a character

OrderSettings

fullName a character (inherited from Metadata)

enableNegativeQuantity a character either 'true' or 'false'

enableOrders a character either 'true' or 'false'

enableReductionOrders a character either 'true' or 'false'

enableZeroQuantity a character either 'true' or 'false'

OrganizationSettingsDetail

settingName a character

settingValue a character either 'true' or 'false'

OrgPreferenceSettings

fullName a character (inherited from Metadata)

preferences a OrganizationSettingsDetail

Package

fullName a character (inherited from Metadata)

apiAccessLevel a APIAccessLevel - which is a character taking one of the following values:

- Unrestricted
- Restricted

description a character

namespacePrefix a character

objectPermissions a ProfileObjectPermissions

packageType a character

postInstallClass a character

setupWeblink a character

types a PackageTypeMembers

uninstallClass a character

version a character

PackageTypeMembers

members a character

name a character

PackageVersion

majorNumber an integer

minorNumber an integer

namespace a character

PasswordPolicies

apiOnlyUserHomePageURL a character

complexity a Complexity - which is a character taking one of the following values:

- NoRestriction
- AlphaNumeric
- SpecialCharacters
- UpperLowerCaseNumeric

- UpperLowerCaseNumericSpecialCharacters

expiration a Expiration - which is a character taking one of the following values:

- ThirtyDays
- SixtyDays
- NinetyDays
- SixMonths
- OneYear
- Never

historyRestriction a character

lockoutInterval a LockoutInterval - which is a character taking one of the following values:

- FifteenMinutes
- ThirtyMinutes
- SixtyMinutes
- Forever

maxLoginAttempts a MaxLoginAttempts - which is a character taking one of the following values:

- ThreeAttempts
- FiveAttempts
- TenAttempts
- NoLimit

minimumPasswordLength a character

minimumPasswordLifetime a character either 'true' or 'false'

obscureSecretAnswer a character either 'true' or 'false'

passwordAssistanceMessage a character

passwordAssistanceURL a character

questionRestriction a QuestionRestriction - which is a character taking one of the following values:

- None
- DoesNotContainPassword

PathAssistant

fullName a character (inherited from Metadata)

active a character either 'true' or 'false'

entityName a character

fieldName a character

masterLabel a character

pathAssistantSteps a PathAssistantStep

recordTypeName a character

PathAssistantSettings

fullName a character (inherited from Metadata)

pathAssistantEnabled a character either 'true' or 'false'

PathAssistantStep

fieldNames a character

info a character

picklistValueName a character

PermissionSet

fullName a character (inherited from Metadata)

applicationVisibilities a PermissionSetApplicationVisibility

classAccesses a PermissionSetApexClassAccess

customPermissions a PermissionSetCustomPermissions

description a character

externalDataSourceAccesses a PermissionSetExternalDataSourceAccess

fieldPermissions a PermissionSetFieldPermissions

hasActivationRequired a character either 'true' or 'false'

label a character

license a character

objectPermissions a PermissionSetObjectPermissions

pageAccesses a PermissionSetApexPageAccess

recordTypeVisibilities a PermissionSetRecordTypeVisibility

tabSettings a PermissionSetTabSetting

userPermissions a PermissionSetUserPermission

PermissionSetApexClassAccess

apexClass a character

enabled a character either 'true' or 'false'

PermissionSetApexPageAccess

apexPage a character

enabled a character either 'true' or 'false'

PermissionSetApplicationVisibility

application a character

visible a character either 'true' or 'false'

PermissionSetCustomPermissions

enabled a character either 'true' or 'false'

name a character

PermissionSetExternalDataSourceAccess

enabled a character either 'true' or 'false'

externalDataSource a character

PermissionSetFieldPermissions

editable a character either 'true' or 'false'

field a character

readable a character either 'true' or 'false'

PermissionSetGroup

fullName a character (inherited from Metadata)

description a character

isCalculatingChanges a character either 'true' or 'false'

label a character

permissionSets a character

PermissionSetObjectPermissions

allowCreate a character either 'true' or 'false'

allowDelete a character either 'true' or 'false'

allowEdit a character either 'true' or 'false'

allowRead a character either 'true' or 'false'

modifyAllRecords a character either 'true' or 'false'

object a character

viewAllRecords a character either 'true' or 'false'

PermissionSetRecordTypeVisibility

recordType a character

visible a character either 'true' or 'false'

PermissionSetTabSetting

tab a character

visibility a PermissionSetTabVisibility - which is a character taking one of the following values:

- None
- Available
- Visible

PermissionSetUserPermission

enabled a character either 'true' or 'false'

name a character

PersonalJourneySettings

fullName a character (inherited from Metadata)

enableExactTargetForSalesforceApps a character either 'true' or 'false'

PersonListSettings

fullName a character (inherited from Metadata)

enablePersonList a character either 'true' or 'false'

PicklistEntry

active a character either 'true' or 'false'

defaultValue a character either 'true' or 'false'

label a character

validFor a character

value a character

PicklistValue

color a character (inherited from GlobalPicklistValue)

default a character either 'true' or 'false' (inherited from GlobalPicklistValue)

description a character (inherited from GlobalPicklistValue)

isActive a character either 'true' or 'false' (inherited from GlobalPicklistValue)

allowEmail a character either 'true' or 'false'

closed a character either 'true' or 'false'

controllingFieldValues a character

converted a character either 'true' or 'false'

cssExposed a character either 'true' or 'false'

forecastCategory a ForecastCategories - which is a character taking one of the following values:

- Omitted
- Pipeline
- BestCase
- Forecast
- Closed

highPriority a character either 'true' or 'false'

probability an integer

reverseRole a character

reviewed a character either 'true' or 'false'

won a character either 'true' or 'false'

PicklistValueTranslation**masterLabel** a character**translation** a character**PlatformActionList****fullName** a character (inherited from Metadata)**actionListContext** a PlatformActionListContext - which is a character taking one of the following values:

- ListView
- RelatedList
- ListViewRecord
- RelatedListRecord
- Record
- FeedElement
- Chatter
- Global
- Flexipage
- MruList
- MruRow
- RecordEdit
- Photo
- BannerPhoto
- ObjectHomeChart
- ListViewDefinition
- Dockable
- Lookup
- Assistant

platformActionListItems a PlatformActionListItem**relatedSourceEntity** a character**PlatformActionListItem****actionName** a character**actionType** a PlatformActionType - which is a character taking one of the following values:

- QuickAction
- StandardButton
- CustomButton
- ProductivityAction
- ActionLink
- InvocableAction

sortOrder an integer

subtype a character

PlatformCachePartition

fullName a character (inherited from Metadata)

description a character

isDefaultPartition a character either 'true' or 'false'

masterLabel a character

platformCachePartitionTypes a PlatformCachePartitionType

PlatformCachePartitionType

allocatedCapacity an integer

allocatedPurchasedCapacity an integer

allocatedTrialCapacity an integer

cacheType a PlatformCacheType - which is a character taking one of the following values:

- Session
- Organization

Portal

fullName a character (inherited from Metadata)

active a character either 'true' or 'false'

admin a character

defaultLanguage a character

description a character

emailSenderAddress a character

emailSenderName a character

enableSelfCloseCase a character either 'true' or 'false'

footerDocument a character

forgotPassTemplate a character

headerDocument a character

isSelfRegistrationActivated a character either 'true' or 'false'

loginHeaderDocument a character

logoDocument a character

logoutUrl a character

newCommentTemplate a character

newPassTemplate a character

newUserTemplate a character

ownerNotifyTemplate a character

selfRegNewUserUrl a character

selfRegUserDefaultProfile a character

selfRegUserDefaultRole a PortalRoles - which is a character taking one of the following values:

- Executive
- Manager
- Worker
- PersonAccount

selfRegUserTemplate a character

showActionConfirmation a character either 'true' or 'false'

stylesheetDocument a character

type a PortalType - which is a character taking one of the following values:

- CustomerSuccess
- Partner
- Network

PostTemplate

fullName a character (inherited from Metadata)

default a character either 'true' or 'false'

description a character

fields a character

label a character

PrimaryTabComponents

containers a Container

ProductSettings

fullName a character (inherited from Metadata)

enableCascadeActivateToRelatedPrices a character either 'true' or 'false'

enableQuantitySchedule a character either 'true' or 'false'

enableRevenueSchedule a character either 'true' or 'false'

Profile

fullName a character (inherited from Metadata)

applicationVisibilities a ProfileApplicationVisibility

categoryGroupVisibilities a ProfileCategoryGroupVisibility

classAccesses a ProfileApexClassAccess

custom a character either 'true' or 'false'

customPermissions a ProfileCustomPermissions

description a character

externalDataSourceAccesses a ProfileExternalDataSourceAccess

fieldPermissions a ProfileFieldLevelSecurity
layoutAssignments a ProfileLayoutAssignment
loginHours a ProfileLoginHours
loginIpRanges a ProfileLoginIpRange
objectPermissions a ProfileObjectPermissions
pageAccesses a ProfileApexPageAccess
profileActionOverrides a ProfileActionOverride
recordTypeVisibilities a ProfileRecordTypeVisibility
tabVisibilities a ProfileTabVisibility
userLicense a character
userPermissions a ProfileUserPermission

ProfileActionOverride

actionName a character
content a character
formFactor a FormFactor - which is a character taking one of the following values:

- Small
- Medium
- Large

pageOrObjectType a character
recordType a character
type a ActionOverrideType - which is a character taking one of the following values:

- Default
- Standard
- Scontrol
- Visualforce
- Flexipage
- LightningComponent

ProfileApexClassAccess

apexClass a character
enabled a character either 'true' or 'false'

ProfileApexPageAccess

apexPage a character
enabled a character either 'true' or 'false'

ProfileApplicationVisibility

application a character

default a character either 'true' or 'false'

visible a character either 'true' or 'false'

ProfileCategoryGroupVisibility

dataCategories a character

dataCategoryGroup a character

visibility a CategoryGroupVisibility - which is a character taking one of the following values:

- ALL
- NONE
- CUSTOM

ProfileCustomPermissions

enabled a character either 'true' or 'false'

name a character

ProfileExternalDataSourceAccess

enabled a character either 'true' or 'false'

externalDataSource a character

ProfileFieldLevelSecurity

editable a character either 'true' or 'false'

field a character

readable a character either 'true' or 'false'

ProfileLayoutAssignment

layout a character

recordType a character

ProfileLoginHours

fridayEnd a character

fridayStart a character

mondayEnd a character

mondayStart a character

saturdayEnd a character

saturdayStart a character

sundayEnd a character

sundayStart a character

thursdayEnd a character

thursdayStart a character

tuesdayEnd a character

tuesdayStart a character

wednesdayEnd a character

wednesdayStart a character

ProfileLoginIpRange

description a character

endAddress a character

startAddress a character

ProfileObjectPermissions

allowCreate a character either 'true' or 'false'

allowDelete a character either 'true' or 'false'

allowEdit a character either 'true' or 'false'

allowRead a character either 'true' or 'false'

modifyAllRecords a character either 'true' or 'false'

object a character

viewAllRecords a character either 'true' or 'false'

ProfilePasswordPolicy

fullName a character (inherited from Metadata)

lockoutInterval an integer

maxLoginAttempts an integer

minimumPasswordLength an integer

minimumPasswordLifetime a character either 'true' or 'false'

obscure a character either 'true' or 'false'

passwordComplexity an integer

passwordExpiration an integer

passwordHistory an integer

passwordQuestion an integer

profile a character

ProfileRecordTypeVisibility

default a character either 'true' or 'false'

personAccountDefault a character either 'true' or 'false'

recordType a character

visible a character either 'true' or 'false'

ProfileSessionSetting

fullName a character (inherited from Metadata)

externalCommunityUserIdentityVerif a character either 'true' or 'false'

forceLogout a character either 'true' or 'false'

profile a character

requiredSessionLevel a SessionSecurityLevel - which is a character taking one of the following values:

- LOW
- STANDARD
- HIGH_ASSURANCE

sessionPersistence a character either 'true' or 'false'

sessionTimeout an integer

sessionTimeoutWarning a character either 'true' or 'false'

ProfileTabVisibility

tab a character

visibility a TabVisibility - which is a character taking one of the following values:

- Hidden
- DefaultOff
- DefaultOn

ProfileUserPermission

enabled a character either 'true' or 'false'

name a character

PublicGroups

publicGroup a character

PushNotification

fieldNames a character

objectName a character

Queue

fullName a character (inherited from Metadata)

doesSendEmailToMembers a character either 'true' or 'false'

email a character

name a character

queueMembers a QueueMembers

queueRoutingConfig a character

queueSubject a QueueSubject

QueueMembers

publicGroups a PublicGroups
roleAndSubordinates a RoleAndSubordinates
roleAndSubordinatesInternal a RoleAndSubordinatesInternal
roles a Roles
users a Users

QueueSubject

subjectType a character

QuickAction

fullName a character (inherited from Metadata)
canvas a character
description a character
fieldOverrides a FieldOverride
flowDefinition a character
height an integer
icon a character
isProtected a character either 'true' or 'false'
label a character
lightningComponent a character
optionsCreateFeedItem a character either 'true' or 'false'
page a character
quickActionLayout a QuickActionLayout
quickActionSendEmailOptions a QuickActionSendEmailOptions
standardLabel a QuickActionLabel - which is a character taking one of the following values:

- LogACall
- LogANote
- New
- NewRecordType
- Update
- NewChild
- NewChildRecordType
- CreateNew
- CreateNewRecordType
- SendEmail
- QuickRecordType
- Quick
- EditDescription

- Defer
- ChangeDueDate
- ChangePriority
- ChangeStatus
- SocialPost
- Escalate
- EscalateToRecord
- OfferFeedback
- RequestFeedback
- AddRecord
- AddMember
- Reply
- ReplyAll
- Forward

successMessage a character

targetObject a character

targetParentField a character

targetRecordType a character

type a QuickActionType - which is a character taking one of the following values:

- Create
- VisualforcePage
- Post
- SendEmail
- LogACall
- SocialPost
- Canvas
- Update
- LightningComponent
- Flow

width an integer

QuickActionLayout

layoutSectionStyle a LayoutSectionStyle - which is a character taking one of the following values:

- TwoColumnsTopToBottom
- TwoColumnsLeftToRight
- OneColumn
- CustomLinks

quickActionLayoutColumns a QuickActionLayoutColumn

QuickActionLayoutColumn

quickActionLayoutItems a QuickActionLayoutItem

QuickActionLayoutItem

emptySpace a character either 'true' or 'false'

field a character

uiBehavior a UiBehavior - which is a character taking one of the following values:

- Edit
- Required
- Readonly

QuickActionList

quickActionListItems a QuickActionListItem

QuickActionListItem

quickActionName a character

QuickActionSendEmailOptions

defaultEmailTemplateName a character

ignoreDefaultEmailTemplateSubject a character either 'true' or 'false'

QuickActionTranslation

label a character

name a character

QuotasSettings

showQuotas a character either 'true' or 'false'

QuoteSettings

fullName a character (inherited from Metadata)

enableQuote a character either 'true' or 'false'

RecommendationAudience

recommendationAudienceDetails a RecommendationAudienceDetail

RecommendationAudienceDetail

audienceCriteriaType a AudienceCriteriaType - which is a character taking one of the following values:

- CustomList
- MaxDaysInCommunity

audienceCriteriaValue a character

setupName a character

RecommendationDefinition

recommendationDefinitionDetails a RecommendationDefinitionDetail

RecommendationDefinitionDetail

actionUrl a character

description a character

linkText a character

scheduledRecommendations a ScheduledRecommendation

setupName a character

title a character

RecommendationStrategy

fullName a character (inherited from Metadata)

description a character

masterLabel a character

recommendationStrategyName a character

strategyNode a StrategyNode

RecordType

fullName a character (inherited from Metadata)

active a character either 'true' or 'false'

businessProcess a character

compactLayoutAssignment a character

description a character

label a character

picklistValues a RecordTypePicklistValue

RecordTypePicklistValue

picklist a character

values a PicklistValue

RecordTypeTranslation

description a character

label a character

name a character

RelatedContent

relatedContentItems a RelatedContentItem

RelatedContentItem

layoutItem a LayoutItem

RelatedList

hideOnDetail a character either 'true' or 'false'

name a character

RelatedListItem

customButtons a character

excludeButtons a character

fields a character

relatedList a character

sortField a character

sortOrder a SortOrder - which is a character taking one of the following values:

- Asc
- Desc

RemoteSiteSetting

fullName a character (inherited from Metadata)

description a character

disableProtocolSecurity a character either 'true' or 'false'

isActive a character either 'true' or 'false'

url a character

Report

fullName a character (inherited from Metadata)

aggregates a ReportAggregate

block a Report

blockInfo a ReportBlockInfo

buckets a ReportBucketField

chart a ReportChart

colorRanges a ReportColorRange

columns a ReportColumn

crossFilters a ReportCrossFilter

currency a CurrencyIsoCode - which is a character taking one of the following values:

- ADP
- AED
- AFA

- AFN
- ALL
- AMD
- ANG
- AOA
- ARS
- ATS
- AUD
- AWG
- AZM
- AZN
- BAM
- BBD
- BDT
- BEF
- BGL
- BGN
- BHD
- BIF
- BMD
- BND
- BOB
- BOV
- BRB
- BRL
- BSD
- BTN
- BWP
- BYB
- BYN
- BYR
- BZD
- CAD
- CDF
- CHF
- CLF
- CLP
- CNY
- COP
- CRC
- CSD
- CUC

- CUP
- CVE
- CYP
- CZK
- DEM
- DJF
- DKK
- DOP
- DZD
- ECS
- EEK
- EGP
- ERN
- ESP
- ETB
- EUR
- FIM
- FJD
- FKP
- FRF
- GBP
- GEL
- GHC
- GHS
- GIP
- GMD
- GNF
- GRD
- GTQ
- GWP
- GYD
- HKD
- HNL
- HRD
- HRK
- HTG
- HUF
- IDR
- IEP
- ILS
- INR
- IQD

- IRR
- ISK
- ITL
- JMD
- JOD
- JPY
- KES
- KGS
- KHR
- KMF
- KPW
- KRW
- KWD
- KYD
- KZT
- LAK
- LBP
- LKR
- LRD
- LSL
- LTL
- LUF
- LVL
- LYD
- MAD
- MDL
- MGA
- MGF
- MKD
- MMK
- MNT
- MOP
- MRO
- MTL
- MUR
- MVR
- MWK
- MXN
- MXV
- MYR
- MZM
- MZN

- NAD
- NGN
- NIO
- NLG
- NOK
- NPR
- NZD
- OMR
- PAB
- PEN
- PGK
- PHP
- PKR
- PLN
- PTE
- PYG
- QAR
- RMB
- ROL
- RON
- RSD
- RUB
- RUR
- RWF
- SAR
- SBD
- SCR
- SDD
- SDG
- SEK
- SGD
- SHP
- SIT
- SKK
- SLL
- SOS
- SRD
- SRG
- SSP
- STD
- SUR
- SVC

- SYP
- SZL
- THB
- TJR
- TJS
- TMM
- TMT
- TND
- TOP
- TPE
- TRL
- TRY
- TTD
- TWD
- TZS
- UAH
- UGX
- USD
- UYU
- UZS
- VEB
- VEF
- VND
- VUV
- WST
- XAF
- XCD
- XOF
- XPF
- YER
- YUM
- ZAR
- ZMK
- ZMW
- ZWD
- ZWL

dataCategoryFilters a ReportDataCategoryFilter

description a character

division a character

filter a ReportFilter

folderName a character

format a ReportFormat - which is a character taking one of the following values:

- MultiBlock
- Matrix
- Summary
- Tabular

groupingsAcross a ReportGrouping

groupingsDown a ReportGrouping

historicalSelector a ReportHistoricalSelector

name a character

numSubscriptions an integer

params a ReportParam

reportType a character

roleHierarchyFilter a character

rowLimit an integer

scope a character

showCurrentDate a character either 'true' or 'false'

showDetails a character either 'true' or 'false'

sortColumn a character

sortOrder a SortOrder - which is a character taking one of the following values:

- Asc
- Desc

territoryHierarchyFilter a character

timeFrameFilter a ReportTimeFrameFilter

userFilter a character

ReportAggregate

acrossGroupingContext a character

calculatedFormula a character

datatype a ReportAggregateDatatype - which is a character taking one of the following values:

- currency
- percent
- number

description a character

developerName a character

downGroupingContext a character

isActive a character either 'true' or 'false'

isCrossBlock a character either 'true' or 'false'

masterLabel a character

reportType a character

scale an integer

ReportAggregateReference

aggregate a character

ReportBlockInfo

aggregateReferences a ReportAggregateReference

blockId a character

joinTable a character

ReportBucketField

bucketType a ReportBucketFieldType - which is a character taking one of the following values:

- text
- number
- picklist

developerName a character

masterLabel a character

nullTreatment a ReportFormulaNullTreatment - which is a character taking one of the following values:

- n
- z

otherBucketLabel a character

sourceColumnName a character

useOther a character either 'true' or 'false'

values a ReportBucketFieldValue

ReportBucketFieldSourceValue

from a character

sourceValue a character

to a character

ReportBucketFieldValue

sourceValues a ReportBucketFieldSourceValue

value a character

ReportChart

backgroundColor1 a character

backgroundColor2 a character

backgroundFadeDir a ChartBackgroundDirection - which is a character taking one of the following values:

- TopToBottom
- LeftToRight
- Diagonal

chartSummaries a ChartSummary

chartType a ChartType - which is a character taking one of the following values:

- None
- Scatter
- ScatterGrouped
- Bubble
- BubbleGrouped
- HorizontalBar
- HorizontalBarGrouped
- HorizontalBarStacked
- HorizontalBarStackedTo100
- VerticalColumn
- VerticalColumnGrouped
- VerticalColumnStacked
- VerticalColumnStackedTo100
- Line
- LineGrouped
- LineCumulative
- LineCumulativeGrouped
- Pie
- Donut
- Funnel
- VerticalColumnLine
- VerticalColumnGroupedLine
- VerticalColumnStackedLine
- Plugin

enableHoverLabels a character either 'true' or 'false'

expandOthers a character either 'true' or 'false'

groupingColumn a character

legendPosition a ChartLegendPosition - which is a character taking one of the following values:

- Right
- Bottom
- OnChart

location a ChartPosition - which is a character taking one of the following values:

- CHART_TOP
- CHART_BOTTOM

secondaryGroupingColumn a character

showAxisLabels a character either 'true' or 'false'

showPercentage a character either 'true' or 'false'

showTotal a character either 'true' or 'false'

showValues a character either 'true' or 'false'

size a ReportChartSize - which is a character taking one of the following values:

- Tiny
- Small
- Medium
- Large
- Huge

summaryAxisManualRangeEnd a numeric

summaryAxisManualRangeStart a numeric

summaryAxisRange a ChartRangeType - which is a character taking one of the following values:

- Auto
- Manual

textColor a character

textSize an integer

title a character

titleColor a character

titleSize an integer

ReportChartComponentLayoutItem

cachedData a character either 'true' or 'false'

contextFilterableField a character

error a character

hideOnError a character either 'true' or 'false'

includeContext a character either 'true' or 'false'

reportName a character

showTitle a character either 'true' or 'false'

size a ReportChartComponentSize - which is a character taking one of the following values:

- SMALL
- MEDIUM
- LARGE

ReportColorRange

aggregate a ReportSummaryType - which is a character taking one of the following values:

- Sum
- Average

- Maximum
- Minimum
- None

columnName a character

highBreakpoint a numeric

highColor a character

lowBreakpoint a numeric

lowColor a character

midColor a character

ReportColumn

aggregateTypes a ReportSummaryType - which is a character taking one of the following values:

- Sum
- Average
- Maximum
- Minimum
- None

field a character

reverseColors a character either 'true' or 'false'

showChanges a character either 'true' or 'false'

ReportCrossFilter

criteriaItems a ReportFilterItem

operation a ObjectFilterOperator - which is a character taking one of the following values:

- with
- without

primaryTableColumn a character

relatedTable a character

relatedTableJoinColumn a character

ReportDataCategoryFilter

dataCategory a character

dataCategoryGroup a character

operator a DataCategoryFilterOperation - which is a character taking one of the following values:

- above
- below
- at
- aboveOrBelow

ReportFilter

booleanFilter a character

criteriaItems a ReportFilterItem

language a Language - which is a character taking one of the following values:

- en_US
- de
- es
- fr
- it
- ja
- sv
- ko
- zh_TW
- zh_CN
- pt_BR
- nl_NL
- da
- th
- fi
- ru
- es_MX
- no
- hu
- pl
- cs
- tr
- in
- ro
- vi
- uk
- iw
- el
- bg
- en_GB
- ar
- sk
- pt_PT
- hr
- sl
- fr_CA
- ka
- sr
- sh

- en_AU
- en_MY
- en_IN
- en_PH
- en_CA
- ro_MD
- bs
- mk
- lv
- lt
- et
- sq
- sh_ME
- mt
- ga
- eu
- cy
- is
- ms
- tl
- lb
- rm
- hy
- hi
- ur
- bn
- de_AT
- de_CH
- ta
- ar_DZ
- ar_BH
- ar_EG
- ar_IQ
- ar_JO
- ar_KW
- ar_LB
- ar_LY
- ar_MA
- ar_OM
- ar_QA
- ar_SA
- ar_SD

- ar_SY
- ar_TN
- ar_AE
- ar_YE
- zh_SG
- zh_HK
- en_HK
- en_IE
- en_SG
- en_ZA
- fr_BE
- fr_LU
- fr_CH
- de_BE
- de_LU
- it_CH
- nl_BE
- es_AR
- es_BO
- es_CL
- es_CO
- es_CR
- es_DO
- es_EC
- es_SV
- es_GT
- es_HN
- es_NI
- es_PA
- es_PY
- es_PE
- es_PR
- es_US
- es_UY
- es_VE
- ca
- eo
- iw_EO

ReportFilterItem

column a character

columnToColumn a character either 'true' or 'false'

isUnlocked a character either 'true' or 'false'

operator a FilterOperation - which is a character taking one of the following values:

- equals
- notEqual
- lessThan
- greaterThan
- lessOrEqual
- greaterOrEqual
- contains
- notContain
- startsWith
- includes
- excludes
- within

snapshot a character

value a character

ReportFolder

accessType a FolderAccessTypes (inherited from Folder)

folderShares a FolderShare (inherited from Folder)

name a character (inherited from Folder)

publicFolderAccess a PublicFolderAccess (inherited from Folder)

sharedTo a SharedTo (inherited from Folder)

ReportGrouping

aggregateType a ReportAggrType - which is a character taking one of the following values:

- Sum
- Average
- Maximum
- Minimum
- RowCount

dateGranularity a UserDateGranularity - which is a character taking one of the following values:

- None
- Day
- Week
- Month
- Quarter
- Year
- FiscalQuarter
- FiscalYear

- MonthInYear
- DayInMonth
- FiscalPeriod
- FiscalWeek

field a character

sortByName a character

sortOrder a SortOrder - which is a character taking one of the following values:

- Asc
- Desc

sortType a ReportSortType - which is a character taking one of the following values:

- Column
- Aggregate
- CustomSummaryFormula

ReportHistoricalSelector

snapshot a character

ReportLayoutSection

columns a ReportTypeColumn

masterLabel a character

ReportParam

name a character

value a character

ReportTimeFrameFilter

dateColumn a character

endDate a character formatted as 'yyyy-mm-dd'

interval a UserDateInterval - which is a character taking one of the following values:

- INTERVAL_CURRENT
- INTERVAL_CURNEXT1
- INTERVAL_CURPREV1
- INTERVAL_NEXT1
- INTERVAL_PREV1
- INTERVAL_CURNEXT3
- INTERVAL_CURFY
- INTERVAL_PREV1FY
- INTERVAL_PREV2FY
- INTERVAL_AGO2FY
- INTERVAL_NEXTFY

- INTERVAL_PREVCURFY
- INTERVAL_PREVCUR2FY
- INTERVAL_CURNEXTFY
- INTERVAL_CUSTOM
- INTERVAL_YESTERDAY
- INTERVAL_TODAY
- INTERVAL_TOMORROW
- INTERVAL_LASTWEEK
- INTERVAL_THISWEEK
- INTERVAL_NEXTWEEK
- INTERVAL_LASTMONTH
- INTERVAL_THISMONTH
- INTERVAL_NEXTMONTH
- INTERVAL_LASTTHISMONTH
- INTERVAL_THISNEXTMONTH
- INTERVAL_CURRENTQ
- INTERVAL_CURNEXTQ
- INTERVAL_CURPREVQ
- INTERVAL_NEXTQ
- INTERVAL_PREVQ
- INTERVAL_CURNEXT3Q
- INTERVAL_CURY
- INTERVAL_PREVY
- INTERVAL_PREV2Y
- INTERVAL_AGO2Y
- INTERVAL_NEXTY
- INTERVAL_PREVCURY
- INTERVAL_PREVCUR2Y
- INTERVAL_CURNEXTY
- INTERVAL_LAST7
- INTERVAL_LAST30
- INTERVAL_LAST60
- INTERVAL_LAST90
- INTERVAL_LAST120
- INTERVAL_NEXT7
- INTERVAL_NEXT30
- INTERVAL_NEXT60
- INTERVAL_NEXT90
- INTERVAL_NEXT120
- LAST_FISCALWEEK
- THIS_FISCALWEEK
- NEXT_FISCALWEEK

- LAST_FISCALPERIOD
- THIS_FISCALPERIOD
- NEXT_FISCALPERIOD
- LASTTHIS_FISCALPERIOD
- THISNEXT_FISCALPERIOD
- CURRENT_ENTITLEMENT_PERIOD
- PREVIOUS_ENTITLEMENT_PERIOD
- PREVIOUS_TWO_ENTITLEMENT_PERIODS
- TWO_ENTITLEMENT_PERIODS_AGO
- CURRENT_AND_PREVIOUS_ENTITLEMENT_PERIOD
- CURRENT_AND_PREVIOUS_TWO_ENTITLEMENT_PERIODS

startDate a character formatted as 'yyyy-mm-dd'

ReportType

fullName a character (inherited from Metadata)

autogenerated a character either 'true' or 'false'

baseObject a character

category a ReportTypeCategory - which is a character taking one of the following values:

- accounts
- opportunities
- forecasts
- cases
- leads
- campaigns
- activities
- busop
- products
- admin
- territory
- other
- content
- usage_entitlement
- wdc
- calibration
- territory2

deployed a character either 'true' or 'false'

description a character

join a ObjectRelationship

label a character

sections a ReportLayoutSection

ReportTypeColumn

checkedByDefault a character either 'true' or 'false'

displayNameOverride a character

field a character

table a character

ReportTypeColumnTranslation

label a character

name a character

ReportTypeSectionTranslation

columns a ReportTypeColumnTranslation

label a character

name a character

ReportTypeTranslation

description a character

label a character

name a character

sections a ReportTypeSectionTranslation

ReputationBranding

smallImage a character

ReputationLevel

branding a ReputationBranding

label a character

lowerThreshold a numeric

ReputationLevelDefinitions

level a ReputationLevel

ReputationLevels

chatterAnswersReputationLevels a ChatterAnswersReputationLevel

ideaReputationLevels a IdeaReputationLevel

ReputationPointsRule

eventType a character

points an integer

ReputationPointsRules**pointsRule** a ReputationPointsRule**RetrieveRequest****apiVersion** a numeric**packageNames** a character**singlePackage** a character either 'true' or 'false'**specificFiles** a character**unpackaged** a Package**Role****caseAccessLevel** a character (inherited from RoleOrTerritory)**contactAccessLevel** a character (inherited from RoleOrTerritory)**description** a character (inherited from RoleOrTerritory)**mayForecastManagerShare** a character either 'true' or 'false' (inherited from RoleOrTerritory)**name** a character (inherited from RoleOrTerritory)**opportunityAccessLevel** a character (inherited from RoleOrTerritory)**parentRole** a character**RoleAndSubordinates****roleAndSubordinate** a character**RoleAndSubordinatesInternal****roleAndSubordinateInternal** a character**RoleOrTerritory****fullName** a character (inherited from Metadata)**caseAccessLevel** a character**contactAccessLevel** a character**description** a character**mayForecastManagerShare** a character either 'true' or 'false'**name** a character**opportunityAccessLevel** a character**Roles****role** a character**RuleEntry****assignedTo** a character

assignedToType a AssignToLookupValueType - which is a character taking one of the following values:

- User
- Queue

booleanFilter a character

businessHours a character

businessHoursSource a BusinessHoursSourceType - which is a character taking one of the following values:

- None
- Case
- Static

criteriaItems a FilterItem

disableEscalationWhenModified a character either 'true' or 'false'

escalationAction a EscalationAction

escalationStartTime a EscalationStartTimeType - which is a character taking one of the following values:

- CaseCreation
- CaseLastModified

formula a character

notifyCcRecipients a character either 'true' or 'false'

overrideExistingTeams a character either 'true' or 'false'

replyToEmail a character

senderEmail a character

senderName a character

team a character

template a character

SamlSsoConfig

fullName a character (inherited from Metadata)

attributeName a character

attributeNameIdFormat a character

decryptionCertificate a character

errorUrl a character

executionUserId a character

identityLocation a SamlIdentityLocationType - which is a character taking one of the following values:

- SubjectNameId
- Attribute

identityMapping a SamlIdentityType - which is a character taking one of the following values:

- Username
- FederationId
- UserId

issuer a character

loginUrl a character

logoutUrl a character

name a character

oauthTokenEndpoint a character

redirectBinding a character either 'true' or 'false'

requestSignatureMethod a character

requestSigningCertId a character

salesforceLoginUrl a character

samlEntityId a character

samlJitHandlerId a character

samlVersion a SamlType - which is a character taking one of the following values:

- SAML1_1
- SAML2_0

singleLogoutBinding a SamlSpSLOBinding - which is a character taking one of the following values:

- RedirectBinding
- PostBinding

singleLogoutUrl a character

userProvisioning a character either 'true' or 'false'

validationCert a character

ScheduledRecommendation

scheduledRecommendationDetails a ScheduledRecommendationDetail

ScheduledRecommendationDetail

channel a RecommendationChannel - which is a character taking one of the following values:

- DefaultChannel
- CustomChannel1
- CustomChannel2
- CustomChannel3
- CustomChannel4
- CustomChannel5

enabled a character either 'true' or 'false'

rank an integer

recommendationAudience a character

Scontrol

content a character formed using [base64encode](#) (inherited from MetadataWithContent)

contentSource a SControlContentSource - which is a character taking one of the following values:

- HTML
- URL
- Snippet

description a character

encodingKey a Encoding - which is a character taking one of the following values:

- UTF-8
- ISO-8859-1
- Shift_JIS
- ISO-2022-JP
- EUC-JP
- ks_c_5601-1987
- Big5
- GB2312
- Big5-HKSCS
- x-SJIS_0213

fileContent a character formed using [base64encode](#)

fileName a character

name a character

supportsCaching a character either 'true' or 'false'

ScontrolTranslation

label a character

name a character

SearchLayouts

customTabListAdditionalFields a character

excludedStandardButtons a character

listViewButtons a character

lookupDialogsAdditionalFields a character

lookupFilterFields a character

lookupPhoneDialogsAdditionalFields a character

searchFilterFields a character

searchResultsAdditionalFields a character

searchResultsCustomButtons a character

SearchSettings

fullName a character (inherited from Metadata)
documentContentSearchEnabled a character either 'true' or 'false'
optimizeSearchForCJKEnabled a character either 'true' or 'false'
recentlyViewedUsersForBlankLookupEnabled a character either 'true' or 'false'
searchSettingsByObject a SearchSettingsByObject
sidebarAutoCompleteEnabled a character either 'true' or 'false'
sidebarDropDownListEnabled a character either 'true' or 'false'
sidebarLimitToItemsIOwnCheckboxEnabled a character either 'true' or 'false'
singleSearchResultShortcutEnabled a character either 'true' or 'false'
spellCorrectKnowledgeSearchEnabled a character either 'true' or 'false'

SearchSettingsByObject

searchSettingsByObject a ObjectSearchSetting

SecuritySettings

fullName a character (inherited from Metadata)
networkAccess a NetworkAccess
passwordPolicies a PasswordPolicies
sessionSettings a SessionSettings

ServiceCloudConsoleConfig

componentList a AppComponentList
detailPageRefreshMethod a character
footerColor a character
headerColor a character
keyboardShortcuts a KeyboardShortcuts
listPlacement a ListPlacement
listRefreshMethod a character
liveAgentConfig a LiveAgentConfig
primaryTabColor a character
pushNotifications a PushNotification
tabLimitConfig a TabLimitConfig
whitelistedDomains a character

SessionSettings

disableTimeoutWarning a character either 'true' or 'false'
enableCSPOnEmail a character either 'true' or 'false'
enableCSRFOnGet a character either 'true' or 'false'

enableCSRFOnPost a character either 'true' or 'false'
enableCacheAndAutocomplete a character either 'true' or 'false'
enableClickjackNonsetupSFDC a character either 'true' or 'false'
enableClickjackNonsetupUser a character either 'true' or 'false'
enableClickjackNonsetupUserHeaderless a character either 'true' or 'false'
enableClickjackSetup a character either 'true' or 'false'
enableContentSniffingProtection a character either 'true' or 'false'
enablePostForSessions a character either 'true' or 'false'
enableSMSIdentity a character either 'true' or 'false'
enableUpgradeInsecureRequests a character either 'true' or 'false'
enableXssProtection a character either 'true' or 'false'
enforceIpRangesEveryRequest a character either 'true' or 'false'
forceLogoutOnSessionTimeout a character either 'true' or 'false'
forceRelogin a character either 'true' or 'false'
hstsOnForcecomSites a character either 'true' or 'false'
identityConfirmationOnEmailChange a character either 'true' or 'false'
identityConfirmationOnTwoFactorRegistrationEnabled a character either 'true' or 'false'
lockSessionsToDomain a character either 'true' or 'false'
lockSessionsToIp a character either 'true' or 'false'
logoutURL a character
redirectionWarning a character either 'true' or 'false'
referrerPolicy a character either 'true' or 'false'
requireHttpOnly a character either 'true' or 'false'
requireHttps a character either 'true' or 'false'
securityCentralKillSession a character either 'true' or 'false'
sessionTimeout a SessionTimeout - which is a character taking one of the following values:

- TwentyFourHours
- TwelveHours
- EightHours
- FourHours
- TwoHours
- SixtyMinutes
- ThirtyMinutes
- FifteenMinutes

SFDCMobileSettings

enableMobileLite a character either 'true' or 'false'
enableUserToDeviceLinking a character either 'true' or 'false'

SharedTo

allCustomerPortalUsers a character
allInternalUsers a character
allPartnerUsers a character
channelProgramGroup a character
channelProgramGroups a character
group a character
groups a character
managerSubordinates a character
managers a character
portalRole a character
portalRoleAndSubordinates a character
queue a character
role a character
roleAndSubordinates a character
roleAndSubordinatesInternal a character
roles a character
rolesAndSubordinates a character
territories a character
territoriesAndSubordinates a character
territory a character
territoryAndSubordinates a character

SharingBaseRule

fullName a character (inherited from Metadata)
accessLevel a character
accountSettings a AccountSharingRuleSettings
description a character
label a character
sharedTo a SharedTo

SharingCriteriaRule

accessLevel a character (inherited from SharingBaseRule)
accountSettings a AccountSharingRuleSettings (inherited from SharingBaseRule)
description a character (inherited from SharingBaseRule)
label a character (inherited from SharingBaseRule)
sharedTo a SharedTo (inherited from SharingBaseRule)

booleanFilter a character

criteriaItems a FilterItem

SharingOwnerRule

accessLevel a character (inherited from SharingBaseRule)

accountSettings a AccountSharingRuleSettings (inherited from SharingBaseRule)

description a character (inherited from SharingBaseRule)

label a character (inherited from SharingBaseRule)

sharedTo a SharedTo (inherited from SharingBaseRule)

sharedFrom a SharedTo

SharingReason

fullName a character (inherited from Metadata)

label a character

SharingReasonTranslation

label a character

name a character

SharingRecalculation

className a character

SharingRules

fullName a character (inherited from Metadata)

sharingCriteriaRules a SharingCriteriaRule

sharingOwnerRules a SharingOwnerRule

sharingTerritoryRules a SharingTerritoryRule

SharingSet

fullName a character (inherited from Metadata)

accessMappings a AccessMapping

description a character

name a character

profiles a character

SharingTerritoryRule

sharedFrom a SharedTo (inherited from SharingOwnerRule)

SidebarComponent

componentType a character
createAction a character
enableLinking a character either 'true' or 'false'
height an integer
label a character
lookup a character
page a character
relatedLists a RelatedList
unit a character
updateAction a character
width an integer

SiteDotCom

content a character formed using [base64encode](#) (inherited from MetadataWithContent)
label a character
siteType a SiteType - which is a character taking one of the following values:

- Siteforce
- Visualforce
- User

SiteRedirectMapping

action a SiteRedirect - which is a character taking one of the following values:

- Permanent
- Temporary

isActive a character either 'true' or 'false'
source a character
target a character

SiteWebAddress

certificate a character
domainName a character
primary a character either 'true' or 'false'

Skill

fullName a character (inherited from Metadata)
assignments a SkillAssignments
description a character
label a character

SkillAssignments

profiles a SkillProfileAssignments

users a SkillUserAssignments

SkillProfileAssignments

profile a character

SkillUserAssignments

user a character

SocialCustomerServiceSettings

fullName a character (inherited from Metadata)

caseSubjectOption a CaseSubjectOption - which is a character taking one of the following values:

- SocialPostSource
- SocialPostContent
- BuildCustom

StandardFieldTranslation

label a character

name a character

StandardValue

color a character (inherited from CustomValue)

default a character either 'true' or 'false' (inherited from CustomValue)

description a character (inherited from CustomValue)

isActive a character either 'true' or 'false' (inherited from CustomValue)

label a character (inherited from CustomValue)

allowEmail a character either 'true' or 'false'

closed a character either 'true' or 'false'

converted a character either 'true' or 'false'

cssExposed a character either 'true' or 'false'

forecastCategory a ForecastCategories - which is a character taking one of the following values:

- Omitted
- Pipeline
- BestCase
- Forecast
- Closed

groupingString a character

highPriority a character either 'true' or 'false'

probability an integer
reverseRole a character
reviewed a character either 'true' or 'false'
won a character either 'true' or 'false'

StandardValueSet

fullName a character (inherited from Metadata)
groupingStringEnum a character
sorted a character either 'true' or 'false'
standardValue a StandardValue

StandardValueSetTranslation

fullName a character (inherited from Metadata)
valueTranslation a ValueTranslation

State

active a character either 'true' or 'false'
integrationValue a character
isoCode a character
label a character
standard a character either 'true' or 'false'
visible a character either 'true' or 'false'

StaticResource

content a character formed using [base64encode](#) (inherited from MetadataWithContent)
cacheControl a StaticResourceCacheControl - which is a character taking one of the following values:

- Private
- Public

contentType a character
description a character

StrategyNode

definition a character
description a character
name a character
parentNode a character
type an integer

SubtabComponents

containers a Container

SummaryLayout

masterLabel a character

sizeX an integer

sizeY an integer

sizeZ an integer

summaryLayoutItems a SummaryLayoutItem

summaryLayoutStyle a SummaryLayoutStyle - which is a character taking one of the following values:

- Default
- QuoteTemplate
- DefaultQuoteTemplate
- ServiceReportTemplate
- ChildServiceReportTemplateStyle
- DefaultServiceReportTemplate
- CaseInteraction
- QuickActionLayoutLeftRight
- QuickActionLayoutTopDown
- PathAssistant

SummaryLayoutItem

customLink a character

field a character

posX an integer

posY an integer

posZ an integer

SupervisorAgentConfigSkills

skill a character

SynonymDictionary

fullName a character (inherited from Metadata)

groups a SynonymGroup

isProtected a character either 'true' or 'false'

label a character

SynonymGroup

languages a Language - which is a character taking one of the following values:

- en_US
- de
- es
- fr
- it
- ja
- sv
- ko
- zh_TW
- zh_CN
- pt_BR
- nl_NL
- da
- th
- fi
- ru
- es_MX
- no
- hu
- pl
- cs
- tr
- in
- ro
- vi
- uk
- iw
- el
- bg
- en_GB
- ar
- sk
- pt_PT
- hr
- sl
- fr_CA
- ka
- sr
- sh
- en_AU
- en_MY

- en_IN
- en_PH
- en_CA
- ro_MD
- bs
- mk
- lv
- lt
- et
- sq
- sh_ME
- mt
- ga
- eu
- cy
- is
- ms
- tl
- lb
- rm
- hy
- hi
- ur
- bn
- de_AT
- de_CH
- ta
- ar_DZ
- ar_BH
- ar_EG
- ar_IQ
- ar_JO
- ar_KW
- ar_LB
- ar_LY
- ar_MA
- ar_OM
- ar_QA
- ar_SA
- ar_SD
- ar_SY
- ar_TN

- ar_AE
- ar_YE
- zh_SG
- zh_HK
- en_HK
- en_IE
- en_SG
- en_ZA
- fr_BE
- fr_LU
- fr_CH
- de_BE
- de_LU
- it_CH
- nl_BE
- es_AR
- es_BO
- es_CL
- es_CO
- es_CR
- es_DO
- es_EC
- es_SV
- es_GT
- es_HN
- es_NI
- es_PA
- es_PY
- es_PE
- es_PR
- es_US
- es_UY
- es_VE
- ca
- eo
- iw_EO

terms a character

TabLimitConfig

maxNumberOfPrimaryTabs a character

maxNumberOfSubTabs a character

Territory

caseAccessLevel a character (inherited from RoleOrTerritory)
contactAccessLevel a character (inherited from RoleOrTerritory)
description a character (inherited from RoleOrTerritory)
mayForecastManagerShare a character either 'true' or 'false' (inherited from RoleOrTerritory)
name a character (inherited from RoleOrTerritory)
opportunityAccessLevel a character (inherited from RoleOrTerritory)
accountAccessLevel a character
parentTerritory a character

Territory2

fullName a character (inherited from Metadata)
accountAccessLevel a character
caseAccessLevel a character
contactAccessLevel a character
customFields a FieldValue
description a character
name a character
opportunityAccessLevel a character
parentTerritory a character
ruleAssociations a Territory2RuleAssociation
territory2Type a character

Territory2Model

fullName a character (inherited from Metadata)
customFields a FieldValue
description a character
name a character

Territory2Rule

fullName a character (inherited from Metadata)
active a character either 'true' or 'false'
booleanFilter a character
name a character
objectType a character
ruleItems a Territory2RuleItem

Territory2RuleAssociation

inherited a character either 'true' or 'false'

ruleName a character

Territory2RuleItem

field a character

operation a FilterOperation - which is a character taking one of the following values:

- equals
- notEqual
- lessThan
- greaterThan
- lessOrEqual
- greaterOrEqual
- contains
- notContain
- startsWith
- includes
- excludes
- within

value a character

Territory2Settings

fullName a character (inherited from Metadata)

defaultAccountAccessLevel a character

defaultCaseAccessLevel a character

defaultContactAccessLevel a character

defaultOpportunityAccessLevel a character

opportunityFilterSettings a Territory2SettingsOpportunityFilter

Territory2SettingsOpportunityFilter

apexClassName a character

enableFilter a character either 'true' or 'false'

runOnCreate a character either 'true' or 'false'

Territory2Type

fullName a character (inherited from Metadata)

description a character

name a character

priority an integer

TopicsForObjects

fullName a character (inherited from Metadata)

enableTopics a character either 'true' or 'false'

entityApiName a character

TouchMobileSettings

enableTouchAppIPad a character either 'true' or 'false'

enableTouchAppiPhone a character either 'true' or 'false'

enableTouchBrowserIPad a character either 'true' or 'false'

enableTouchIosPhone a character either 'true' or 'false'

enableVisualforceInTouch a character either 'true' or 'false'

TransactionSecurityAction

block a character either 'true' or 'false'

endSession a character either 'true' or 'false'

freezeUser a character either 'true' or 'false'

notifications a TransactionSecurityNotification

twoFactorAuthentication a character either 'true' or 'false'

TransactionSecurityNotification

inApp a character either 'true' or 'false'

sendEmail a character either 'true' or 'false'

user a character

TransactionSecurityPolicy

fullName a character (inherited from Metadata)

action a TransactionSecurityAction

active a character either 'true' or 'false'

apexClass a character

description a character

developerName a character

eventName a TransactionSecurityEventName - which is a character taking one of the following values:

- ReportEvent
- ApiEvent
- AdminSetupEvent
- LoginEvent

eventType a MonitoredEvents - which is a character taking one of the following values:

- AuditTrail
- Login

- Entity
- DataExport
- AccessResource

executionUser a character

flow a character

masterLabel a character

resourceName a character

type a TxnSecurityPolicyType - which is a character taking one of the following values:

- CustomApexPolicy
- CustomConditionBuilderPolicy

Translations

fullName a character (inherited from Metadata)

customApplications a CustomApplicationTranslation

customDataTypeTranslations a CustomDataTypeTranslation

customLabels a CustomLabelTranslation

customPageWebLinks a CustomPageWebLinkTranslation

customTabs a CustomTabTranslation

flowDefinitions a FlowDefinitionTranslation

quickActions a GlobalQuickActionTranslation

reportTypes a ReportTypeTranslation

scontrols a ScontrolTranslation

UiFormulaCriterion

leftValue a character

operator a character

rightValue a character

UiFormulaRule

booleanFilter a character

criteria a UiFormulaCriterion

UiPlugin

content a character formed using [base64encode](#) (inherited from MetadataWithContent)

description a character

extensionPointIdentifier a character

isEnabled a character either 'true' or 'false'

language a character

masterLabel a character

UserCriteria

fullName a character (inherited from Metadata)

creationAgeInSeconds an integer

description a character

lastChatterActivityAgeInSeconds an integer

masterLabel a character

profiles a character

userTypes a NetworkUserType - which is a character taking one of the following values:

- Internal
- Customer
- Partner

Users

user a character

ValidationRule

fullName a character (inherited from Metadata)

active a character either 'true' or 'false'

description a character

errorConditionFormula a character

errorDisplayField a character

errorMessage a character

ValidationRuleTranslation

errorMessage a character

name a character

ValueSet

controllingField a character

restricted a character either 'true' or 'false'

valueSetDefinition a ValueSetValuesDefinition

valueSetName a character

valueSettings a ValueSettings

ValueSettings

controllingFieldValue a character

valueName a character

ValueSetValuesDefinition

sorted a character either 'true' or 'false'

value a CustomValue

ValueTranslation

masterLabel a character

translation a character

ValueTypeField

fields a ValueTypeField

foreignKeyDomain a character

isForeignKey a character either 'true' or 'false'

isNameField a character either 'true' or 'false'

minOccurs an integer

name a character

picklistValues a PicklistEntry

soapType a character

valueRequired a character either 'true' or 'false'

VisualizationPlugin

fullName a character (inherited from Metadata)

description a character

developerName a character

icon a character

masterLabel a character

visualizationResources a VisualizationResource

visualizationTypes a VisualizationType

VisualizationResource

description a character

file a character

rank an integer

type a VisualizationResourceType - which is a character taking one of the following values:

- js
- css

VisualizationType

description a character

developerName a character

icon a character

masterLabel a character

scriptBootstrapMethod a character

WaveApplication

fullName a character (inherited from Metadata)

assetIcon a character

description a character

folder a character

masterLabel a character

shares a FolderShare

templateOrigin a character

templateVersion a character

WaveDashboard

content a character formed using [base64encode](#) (inherited from MetadataWithContent)

application a character

description a character

masterLabel a character

templateAssetSourceName a character

WaveDataflow

content a character formed using [base64encode](#) (inherited from MetadataWithContent)

dataflowType a character

description a character

masterLabel a character

WaveDataset

fullName a character (inherited from Metadata)

application a character

description a character

masterLabel a character

templateAssetSourceName a character

WaveLens

content a character formed using [base64encode](#) (inherited from MetadataWithContent)

application a character

datasets a character

description a character

masterLabel a character
templateAssetSourceName a character
visualizationType a character

WaveRecipe

content a character formed using [base64encode](#) (inherited from MetadataWithContent)
dataflow a character
masterLabel a character
securityPredicate a character
targetDatasetAlias a character

WaveTemplateBundle

fullName a character (inherited from Metadata)
assetIcon a character
assetVersion a numeric
description a character
label a character
templateBadgeIcon a character
templateDetailIcon a character
templateType a character

WaveXmd

fullName a character (inherited from Metadata)
application a character
dataset a character
datasetConnector a character
datasetFullyQualifiedName a character
dates a WaveXmdDate
dimensions a WaveXmdDimension
measures a WaveXmdMeasure
organizations a WaveXmdOrganization
origin a character
type a character
waveVisualization a character

WaveXmdDate

alias a character
compact a character either 'true' or 'false'

dateFieldDay a character
dateFieldEpochDay a character
dateFieldEpochSecond a character
dateFieldFiscalMonth a character
dateFieldFiscalQuarter a character
dateFieldFiscalWeek a character
dateFieldFiscalYear a character
dateFieldFullYear a character
dateFieldHour a character
dateFieldMinute a character
dateFieldMonth a character
dateFieldQuarter a character
dateFieldSecond a character
dateFieldWeek a character
dateFieldYear a character
description a character
firstDayOfWeek an integer
fiscalMonthOffset an integer
isYearEndFiscalYear a character either 'true' or 'false'
label a character
showInExplorer a character either 'true' or 'false'
sortIndex an integer

WaveXmdDimension

customActions a WaveXmdDimensionCustomAction
customActionsEnabled a character either 'true' or 'false'
dateFormat a character
description a character
field a character
fullyQualifiedName a character
imageTemplate a character
isDerived a character either 'true' or 'false'
isMultiValue a character either 'true' or 'false'
label a character
linkTemplate a character
linkTemplateEnabled a character either 'true' or 'false'
linkTooltip a character

members a WaveXmdDimensionMember
origin a character
recordDisplayFields a WaveXmdRecordDisplayLookup
recordIdField a character
recordOrganizationIdField a character
salesforceActions a WaveXmdDimensionSalesforceAction
salesforceActionsEnabled a character either 'true' or 'false'
showDetailsDefaultFieldIndex an integer
showInExplorer a character either 'true' or 'false'
sortIndex an integer

WaveXmdDimensionCustomAction

customActionName a character
enabled a character either 'true' or 'false'
icon a character
method a character
sortIndex an integer
target a character
tooltip a character
url a character

WaveXmdDimensionMember

color a character
label a character
member a character
sortIndex an integer

WaveXmdDimensionSalesforceAction

enabled a character either 'true' or 'false'
salesforceActionName a character
sortIndex an integer

WaveXmdMeasure

dateFormat a character
description a character
field a character
formatCustomFormat a character
formatDecimalDigits an integer

formatIsNegativeParens a character either 'true' or 'false'

formatPrefix a character

formatSuffix a character

formatUnit a character

formatUnitMultiplier a numeric

fullyQualifiedName a character

isDerived a character either 'true' or 'false'

label a character

origin a character

showDetailsDefaultFieldIndex an integer

showInExplorer a character either 'true' or 'false'

sortIndex an integer

WaveXmdOrganization

instanceUrl a character

label a character

organizationIdentifier a character

sortIndex an integer

WaveXmdRecordDisplayLookup

recordDisplayField a character

WebLink

fullName a character (inherited from Metadata)

availability a WebLinkAvailability - which is a character taking one of the following values:

- online
- offline

description a character

displayType a WebLinkDisplayType - which is a character taking one of the following values:

- link
- button
- massActionButton

encodingKey a Encoding - which is a character taking one of the following values:

- UTF-8
- ISO-8859-1
- Shift_JIS
- ISO-2022-JP
- EUC-JP
- ks_c_5601-1987

- Big5
- GB2312
- Big5-HKSCS
- x-SJIS_0213

hasMenuBar a character either 'true' or 'false'

hasScrollbars a character either 'true' or 'false'

hasToolBar a character either 'true' or 'false'

height an integer

isResizable a character either 'true' or 'false'

linkType a WebLinkType - which is a character taking one of the following values:

- url
- sControl
- javascript
- page
- flow

masterLabel a character

openType a WebLinkWindowType - which is a character taking one of the following values:

- newWindow
- sidebar
- noSidebar
- replace
- onClickJavaScript

page a character

position a WebLinkPosition - which is a character taking one of the following values:

- fullScreen
- none
- topLeft

protected a character either 'true' or 'false'

requireRowSelection a character either 'true' or 'false'

scontrol a character

showsLocation a character either 'true' or 'false'

showsStatus a character either 'true' or 'false'

url a character

width an integer

WebLinkTranslation

label a character

name a character

WebToCaseSettings

caseOrigin a character
defaultResponseTemplate a character
enableWebToCase a character either 'true' or 'false'

WeightedSourceCategory

sourceCategoryApiName a character
weight a numeric

Workflow

fullName a character (inherited from Metadata)
alerts a WorkflowAlert
fieldUpdates a WorkflowFieldUpdate
flowActions a WorkflowFlowAction
knowledgePublishes a WorkflowKnowledgePublish
outboundMessages a WorkflowOutboundMessage
rules a WorkflowRule
send a WorkflowSend
tasks a WorkflowTask

WorkflowAction

fullName a character (inherited from Metadata)

WorkflowActionReference

name a character
type a WorkflowActionType - which is a character taking one of the following values:

- FieldUpdate
- KnowledgePublish
- Task
- Alert
- Send
- OutboundMessage
- FlowAction

WorkflowAlert

extends WorkflowAction see documentation for WorkflowAction
ccEmails a character
description a character
protected a character either 'true' or 'false'
recipients a WorkflowEmailRecipient

senderAddress a character

senderType a ActionEmailSenderType - which is a character taking one of the following values:

- CurrentUser
- OrgWideEmailAddress
- DefaultWorkflowUser

template a character

WorkflowEmailRecipient

field a character

recipient a character

type a ActionEmailRecipientTypes - which is a character taking one of the following values:

- group
- role
- user
- opportunityTeam
- accountTeam
- roleSubordinates
- owner
- creator
- partnerUser
- accountOwner
- customerPortalUser
- portalRole
- portalRoleSubordinates
- contactLookup
- userLookup
- roleSubordinatesInternal
- email
- caseTeam
- campaignMemberDerivedOwner

WorkflowFieldUpdate

extends WorkflowAction see documentation for WorkflowAction

description a character

field a character

formula a character

literalValue a character

lookupValue a character

lookupValueType a LookupValueType - which is a character taking one of the following values:

- User

- Queue
- RecordType

name a character

notifyAssignee a character either 'true' or 'false'

operation a FieldUpdateOperation - which is a character taking one of the following values:

- Formula
- Literal
- Null
- NextValue
- PreviousValue
- LookupValue

protected a character either 'true' or 'false'

reevaluateOnChange a character either 'true' or 'false'

targetObject a character

WorkflowFlowAction

extends WorkflowAction see documentation for WorkflowAction

description a character

flow a character

flowInputs a WorkflowFlowActionParameter

label a character

language a character

protected a character either 'true' or 'false'

WorkflowFlowActionParameter

name a character

value a character

WorkflowKnowledgePublish

extends WorkflowAction see documentation for WorkflowAction

action a KnowledgeWorkflowAction - which is a character taking one of the following values:

- PublishAsNew
- Publish

description a character

label a character

language a character

protected a character either 'true' or 'false'

WorkflowRule

fullName a character (inherited from Metadata)

actions a WorkflowActionReference

active a character either 'true' or 'false'

booleanFilter a character

criteriaItems a FilterItem

description a character

formula a character

triggerType a WorkflowTriggerTypes - which is a character taking one of the following values:

- onCreateOnly
- onCreateOrTriggeringUpdate
- onAllChanges
- OnRecursiveUpdate

workflowTimeTriggers a WorkflowTimeTrigger

WorkflowSend

extends WorkflowAction see documentation for WorkflowAction

action a SendAction - which is a character taking one of the following values:

- Send

description a character

label a character

language a character

protected a character either 'true' or 'false'

WorkflowTask

extends WorkflowAction see documentation for WorkflowAction

assignedTo a character

assignedToType a ActionTaskAssignedToTypes - which is a character taking one of the following values:

- user
- role
- opportunityTeam
- accountTeam
- owner
- accountOwner
- creator
- accountCreator
- partnerUser
- portalRole

description a character

dueDateOffset an integer
notifyAssignee a character either 'true' or 'false'
offsetFromField a character
priority a character
protected a character either 'true' or 'false'
status a character
subject a character

WorkflowTaskTranslation

description a character
name a character
subject a character

WorkflowTimeTrigger

actions a WorkflowActionReference
offsetFromField a character
timeLength a character
workflowTimeTriggerUnit a WorkflowTimeUnits - which is a character taking one of the following values:

- Hours
- Days

WorkspaceMapping

fieldName a character
tab a character

Value

a list that can be used as input to one of the CRUD Metadata API operations: [sf_create_metadata](#), [sf_update_metadata](#), [sf_update_metadata](#)

 parameterized_search_control

Auxiliary for Controlling Parametrized Searches

Description

A function for allowing finer grained control over how a search is performed when not using SOSL

Usage

```
parameterized_search_control(
  objects = NULL,
  fields_scope = c("ALL", "NAME", "EMAIL", "PHONE", "SIDEBAR"),
  fields = NULL,
  overall_limit = 2000,
  default_limit = 200,
  spell_correction = TRUE
)
```

Arguments

objects	character; objects to search and return in the response. Multiple objects can be provided as a character vector
fields_scope	character; scope of fields to search in order to limit the resources used and improve performance
fields	character; one or more fields to return in the response for each subject specified. If no fields are specified only the Ids of the matching records are returned.
overall_limit	numeric; the maximum number of results to return across all objects in the search.
default_limit	numeric; the maximum number of results to return for each of the specified objects. This parameter is ignored if the objects argument is left NULL.
spell_correction	logical; specifies whether spell correction should be enabled for a user's search.

Value

list of parameters passed onto sf_search

References

https://developer.salesforce.com/docs/atlas.en-us.api_rest.meta/api_rest/resources_search_parameterized.htm#resources_search_parameterized

Examples

```
## Not run:
# free text search only on Contact record Phone fields
# this will improve the performance of the search
my_phone_search <- "(336)"
search_result <- sf_search(my_phone_search,
                          objects = c("Contact", "Lead"),
                          fields_scope = "PHONE",
                          fields = c("Id", "FirstName", "LastName"))

## End(Not run)
```

rforcecom.bulkAction *The salesforcer backwards compatible version of the RForcecom function rforcecom.bulkAction*

Description**[Soft-deprecated]**

This function is a convenience wrapper for submitting bulk API jobs

Usage

```
rforcecom.bulkAction(
  session,
  operation = c("insert", "delete", "upsert", "update", "hardDelete"),
  data,
  object,
  external_id_fieldname = NULL,
  multiBatch = TRUE,
  batchSize = 10000,
  interval_seconds = 5,
  max_attempts = 100,
  verbose = FALSE
)
```

Arguments

session	list; a list containing "sessionId", "instanceURL", and "apiVersion" as returned by RForcecom::rforcecom.login. This argument is ignored in all backward compatible calls because the authorization credentials are stored in an environment internal to the salesforcer package, so it is no longer necessary to pass the session in each function call.
operation	a character string defining the type of operation being performed
data	a matrix or data.frame that can be coerced into a CSV file for submitting as batch request

object	a character string defining the target salesforce object that the operation will be performed on
external_id_fieldname	character; string identifying a custom field on the object that has been set as an "External ID" field. This field is used to reference objects during upserts to determine if the record already exists in Salesforce or not.
multiBatch	a boolean value defining whether or not submit data in batches to the API
batchSize	an integer value defining the number of records to submit if multiBatch is true. The max value is 10,000 in accordance with Salesforce limits.
interval_seconds	an integer defining the seconds between attempts to check for job completion
max_attempts	an integer defining then max number attempts to check for job completion before stopping
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A tbl_df of the results of the bulk job

References

https://developer.salesforce.com/docs/atlas.en-us.api_asynch.meta/api_asynch

Examples

```
## Not run:
# update Account object
updates <- rforcecom.bulkAction(session,
                                operation = 'update',
                                data = my_data,
                                object = 'Account')

## End(Not run)
```

rforcecom.bulkQuery *The salesforcer backwards compatible version of*
RForcecom::rforcecom.bulkQuery

Description

[Soft-deprecated]

Usage

```
rforcecom.bulkQuery(
  session,
  soqlQuery,
  object,
  interval_seconds = 5,
  max_attempts = 100,
  verbose = FALSE
)
```

Arguments

session	list; a list containing "sessionId", "instanceURL", and "apiVersion" as returned by RForcecom::rforcecom.login. This argument is ignored in all backward compatible calls because the authorization credentials are stored in an environment internal to the salesforcer package, so it is no longer necessary to pass the session in each function call.
soqlQuery	character; a string defining a SOQL query (e.g. "SELECT Id, Name FROM Account").
object	character; the name of one Salesforce objects that the function is operating against (e.g. "Account", "Contact", "CustomObject__c")
interval_seconds	an integer defining the seconds between attempts to check for job completion
max_attempts	an integer defining then max number attempts to check for job completion before stopping
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A data.frame of the recordset returned by query

rforcecom.create	<i>The salesforcer backwards compatible version of RForcecom::rforcecom.create</i>
------------------	--

Description

[Soft-deprecated]

Usage

```
rforcecom.create(session, objectName, fields)
```


Arguments

session	list; a list containing "sessionId", "instanceURL", and "apiVersion" as returned by RForcecom::rforcecom.login. This argument is ignored in all backward compatible calls because the authorization credentials are stored in an environment internal to the salesforcer package, so it is no longer necessary to pass the session in each function call.
objectName	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
fields	Field names and values. (ex: Name="CompanyName", Phone="000-000-000")

Value

data.frame containing the id and success indicator of the record creation process

rforcecom.delete	<i>The salesforcer backwards compatible version of RForcecom::rforcecom.delete</i>
------------------	--

Description

[Soft-deprecated]

Usage

```
rforcecom.delete(session, objectName, id)
```

Arguments

session	list; a list containing "sessionId", "instanceURL", and "apiVersion" as returned by RForcecom::rforcecom.login. This argument is ignored in all backward compatible calls because the authorization credentials are stored in an environment internal to the salesforcer package, so it is no longer necessary to pass the session in each function call.
objectName	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
id	Record ID to delete. (ex: "999x000000xxxxxZZZ")

Value

NULL if successful otherwise the function errors out

```
rforcecom.getObjectDescription
```

The salesforcer backwards compatible version of RForcecom::rforcecom.getObjectDescription

Description

[Soft-deprecated]

Usage

```
rforcecom.getObjectDescription(session, objectName)
```

Arguments

session	list; a list containing "sessionId", "instanceURL", and "apiVersion" as returned by RForcecom::rforcecom.login. This argument is ignored in all backward compatible calls because the authorization credentials are stored in an environment internal to the salesforcer package, so it is no longer necessary to pass the session in each function call.
objectName	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").

Value

Object descriptions

Note

This function returns a data.frame with one row per field for an object.

```
rforcecom.getServerTimestamp
```

The salesforcer backwards compatible version of RForcecom::rforcecom.getServerTimestamp

Description

[Soft-deprecated]

Usage

```
rforcecom.getServerTimestamp(session)
```

Arguments

session	list; a list containing "sessionID", "instanceURL", and "apiVersion" as returned by RForcecom::rforcecom.login. This argument is ignored in all backward compatible calls because the authorization credentials are stored in an environment internal to the salesforcer package, so it is no longer necessary to pass the session in each function call.
---------	---

rforcecom.login	<i>The salesforcer backwards compatible version of RForcecom::rforcecom.login</i>
-----------------	---

Description**[Soft-deprecated]****Usage**

```
rforcecom.login(
  username,
  password,
  loginURL = "https://login.salesforce.com/",
  apiVersion = "35.0"
)
```

Arguments

username	Your username for login to the Salesforce.com. In many cases, username is your E-mail address.
password	Your password for login to the Salesforce.com. Note: DO NOT FORGET your Security Token. (Ex.) If your password is "Pass1234" and your security token is "XYZXYZXYZXYZ", you should set "Pass1234XYZXYZXYZXYZ".
loginURL	(optional) Login URL. If your environment is sandbox specify (ex:) "https://test.salesforce.com".
apiVersion	(optional) Version of the REST API and SOAP API that you want to use. (ex:) "35.0" Supported versions from v20.0 and up.

Value

sessionID	Session ID.
instanceURL	Instance URL.
apiVersion	API Version.

rforcecom.query	<i>The salesforcer backwards compatible version of RForcecom::rforcecom.query</i>
-----------------	---

Description**[Soft-deprecated]****Usage**

```
rforcecom.query(session, soqlQuery, queryAll = FALSE)
```

Arguments

session	list; a list containing "sessionId", "instanceURL", and "apiVersion" as returned by RForcecom::rforcecom.login. This argument is ignored in all backward compatible calls because the authorization credentials are stored in an environment internal to the salesforcer package, so it is no longer necessary to pass the session in each function call.
soqlQuery	character; a string defining a SOQL query (e.g. "SELECT Id, Name FROM Account").
queryAll	logical; indicating if the query recordset should include deleted and archived records (available only when querying Task and Event records)

Value

Result dataset.

rforcecom.retrieve	<i>The salesforcer backwards compatible version of RForcecom::rforcecom.retrieve</i>
--------------------	--

Description**[Soft-deprecated]****Usage**

```
rforcecom.retrieve(
  session,
  objectName,
  fields,
  limit = NULL,
  id = NULL,
  offset = NULL,
```

```

    order = NULL,
    inverse = NULL,
    nullsLast = NULL
)

```

Arguments

session	list; a list containing "sessionId", "instanceURL", and "apiVersion" as returned by RForcecom::rforcecom.login. This argument is ignored in all backward compatible calls because the authorization credentials are stored in an environment internal to the salesforcer package, so it is no longer necessary to pass the session in each function call.
objectName	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
fields	A List of field names. (ex: c("Id", "Name", "Industry", "AnnualRevenue"))
limit	Number of the records to retrieve. (ex: 5)
id	Record ID to retrieve. (ex: "999x000000xxxxZZZ")
offset	Specifies the starting row offset. (ex: "100")
order	A list for controlling the order of query results. (ex: c("Industry","Name"))
inverse	If it is TRUE, the results are ordered in descending order. This parameter works when order parameter has been set. (Default: FALSE)
nullsLast	If it is TRUE, null records list in last. If not null records list in first. This parameter works when order parameter has been set. (Default: FALSE)

rforcecom.search *The salesforcer backwards compatible version of RForcecom::rforcecom.search*

Description

[Soft-deprecated]

Usage

```
rforcecom.search(session, queryString)
```

Arguments

session	list; a list containing "sessionId", "instanceURL", and "apiVersion" as returned by RForcecom::rforcecom.login. This argument is ignored in all backward compatible calls because the authorization credentials are stored in an environment internal to the salesforcer package, so it is no longer necessary to pass the session in each function call.
queryString	Query strings to search. (ex: "United", "Electronics")

rforcecom.update	<i>The salesforcer backwards compatible version of RForcecom::rforcecom.update</i>
------------------	--

Description**[Soft-deprecated]****Usage**

```
rforcecom.update(session, objectName, id, fields)
```

Arguments

session	list; a list containing "sessionId", "instanceURL", and "apiVersion" as returned by RForcecom::rforcecom.login. This argument is ignored in all backward compatible calls because the authorization credentials are stored in an environment internal to the salesforcer package, so it is no longer necessary to pass the session in each function call.
objectName	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
id	Record ID to update. (ex: "999x000000xxxxZZZ")
fields	Field names and values. (ex: Name="CompanyName", Phone="000-000-000")

Value

NULL if successful otherwise the function errors out

rforcecom.upsert	<i>The salesforcer backwards compatible version of RForcecom::rforcecom.upsert</i>
------------------	--

Description**[Soft-deprecated]****Usage**

```
rforcecom.upsert(session, objectName, externalIdField, externalId, fields)
```

Arguments

session	list; a list containing "sessionId", "instanceURL", and "apiVersion" as returned by RForcecom::rforcecom.login. This argument is ignored in all backward compatible calls because the authorization credentials are stored in an environment internal to the salesforcer package, so it is no longer necessary to pass the session in each function call.
objectName	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
externalIdField	An external Key's field name. (ex: "AccountMaster__c")
externalId	An external Key's ID. (ex: "999x000000xxxxxZZZ")
fields	Field names and values. (ex: Name="CompanyName", Phone="000-000-000")

Value

NULL if successful otherwise the function errors out

sf_abort_job_bulk	<i>Abort Bulk API Job</i>
-------------------	---------------------------

Description

This function aborts a Job in the Salesforce Bulk API

Usage

```
sf_abort_job_bulk(
  job_id,
  api_type = c("Bulk 1.0", "Bulk 2.0"),
  verbose = FALSE
)
```

Arguments

job_id	character; the Salesforce Id assigned to a submitted job as returned by sf_create_job_bulk . It will start with "750".
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A list of parameters defining the now aborted job

References

https://developer.salesforce.com/docs/atlas.en-us.api_asynch.meta/api_asynch

Examples

```
## Not run:
job_info <- sf_create_job_bulk('insert', 'Account')
sf_abort_job_bulk(job_info$id)

## End(Not run)
```

```
sf_analytics_notifications_limits
```

Return limits of analytics notifications

Description

[Experimental]

Usage

```
sf_analytics_notifications_limits(
  source = c("lightningDashboardSubscribe", "lightningReportSubscribe",
            "waveNotification"),
  record_id = NULL
)
```

Arguments

source	character; a vector of character to specify what type of analytics notification to return. Valid values are: lightningDashboardSubscribe Dashboard subscriptions lightningReportSubscribe Report subscriptions waveNotification Einstein Analytics notifications By default, all 3 sources will be returned in the results.
record_id	character; specify if wanting to return the notification details for a single record. Valid values are either a unique report Id (these reference Ids start with "000") or an Einstein Analytics lens ID (these reference Ids start with "0FK").

Value

list

sf_analytics_notifications_list
List analytics notifications

Description**[Experimental]****Usage**

```
sf_analytics_notifications_list(
  source = c("lightningDashboardSubscribe", "lightningReportSubscribe",
    "waveNotification"),
  owner_id = NULL,
  record_id = NULL
)
```

Arguments

source	character; a vector of character to specify what type of analytics notification to return. Valid values are: lightningDashboardSubscribe Dashboard subscriptions lightningReportSubscribe Report subscriptions waveNotification Einstein Analytics notifications By default, all 3 sources will be returned in the results.
owner_id	character; Allows users with Manage Analytics Notifications permission to get notifications for another user with the specified Salesforce Id representing the owner, which is a User record (i.e. the Id will start with "005").
record_id	character; specify if wanting to return the notification details for a single record. Valid values are either a unique report Id (these reference Ids start with "000") or an Einstein Analytics lens ID (these reference Ids start with "0FK").

Value

list

sf_analytics_notification_create
Create an analytics notification

Description**[Experimental]**

Usage

```
sf_analytics_notification_create(body)
```

Arguments

`body` `list`; a list of data to be formatted as JSON before being sent to an API endpoint. This is NOT validated and is only experimental in allowing users to utilize the API functionality before wrapper functions have been written in R to format and validate the request in a more user-friendly format.

Value

`list`

sf_analytics_notification_delete
Delete an analytics notification

Description

[Experimental]

Usage

```
sf_analytics_notification_delete(notification_id)
```

Arguments

`notification_id` `character`; the Salesforce Id assigned to a created analytics notification. It will start with "0Au".

Value

`logical`

sf_analytics_notification_describe
Describe an analytics notification

Description

[Experimental]

Usage

```
sf_analytics_notification_describe(notification_id)
```

Arguments

notification_id

character; the Salesforce Id assigned to a created analytics notification. It will start with "0Au".

Value

list

sf_analytics_notification_update
Update an analytics notification

Description

[Experimental]

Usage

```
sf_analytics_notification_update(notification_id, body)
```

Arguments

notification_id

character; the Salesforce Id assigned to a created analytics notification. It will start with "0Au".

body

list; a list of data to be formatted as JSON before being sent to an API endpoint. This is NOT validated and is only experimental in allowing users to utilize the API functionality before wrapper functions have been written in R to format and validate the request in a more user-friendly format.

Value

list

sf_auth

*Log in to Salesforce***Description****[Stable]**

Log in using Basic (Username-Password) or OAuth 2.0 authentication. OAuth does not require sharing passwords, but will require authorizing salesforcer as a connected app to view and manage your organization. You will be directed to a web browser, asked to sign in to your Salesforce account, and to grant salesforcer permission to operate on your behalf. By default, these user credentials are cached in a file named `.httr-oauth-salesforcer` in the current working directory.

Usage

```
sf_auth(
  username = NULL,
  password = NULL,
  security_token = NULL,
  login_url = getOption("salesforcer.login_url"),
  token = NULL,
  consumer_key = getOption("salesforcer.consumer_key"),
  consumer_secret = getOption("salesforcer.consumer_secret"),
  callback_url = getOption("salesforcer.callback_url"),
  cache = getOption("salesforcer.httr_oauth_cache"),
  verbose = FALSE
)
```

Arguments

username	Salesforce username, typically an email address
password	Salesforce password
security_token	Salesforce security token. Note: A new security token is generated whenever your password is changed.
login_url	a custom login url; defaults to <code>https://login.salesforce.com</code> . If needing to log into a sandbox or dev environment then provide its login URL (e.g. <code>https://test.salesforce.com</code>)
token	optional; an actual token object or the path to a valid token stored as an <code>.rds</code> file
consumer_key, consumer_secret, callback_url	the "Consumer Key", "Consumer Secret", and "Callback URL" when using a connected app; defaults to the salesforcer connected apps' consumer key, secret, and callback url
cache	logical or character; TRUE means to cache using the default cache file <code>.httr-oauth-salesforcer</code> , FALSE means do not cache. A string means use the specified path as the cache file.

verbose logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

list invisibly that contains 4 elements detailing the authentication state

Note

The `link{sf_auth}` function invisibly returns the following 4 pieces of information which can be reused in other operations:

auth_method character; One of two options 'Basic' or 'OAuth'. If a username, password, and security token were supplied, then this would result in 'Basic' authentication.

token Token2.0; The object returned by `oauth2.0_token`. This value is NULL if `auth_method='Basic'`.

session_id character; A unique ID associated with this user session. The session ID is obtained from the X-SFDC-Session header fetched with SOAP API's `login()` call. This value is NULL if `auth_method='OAuth'`.

instance_url character; The domain address of the server that your Salesforce org is on and where subsequent API calls will be directed to. For example, `https://na21.salesforce.com` refers to an org located on the 'NA21' server instance located in Chicago, USA / Washington DC, USA per this Knowledge Article: https://help.salesforce.com/s/articleView?language=en_US&id=000314281.

Examples

```
## Not run:
# log in using basic authentication (username-password)
sf_auth(username = "test@gmail.com",
        password = "test_password",
        security_token = "test_token")

# log in using OAuth 2.0 (via browser or cached .httr-oauth-salesforcer)
sf_auth()

# log in to a Sandbox environment
# Via browser or refresh of .httr-oauth-salesforcer
sf_auth(login_url = "https://test.salesforce.com")

# Save token to disk and log in using it
saveRDS(salesforcer_state()$token, "token.rds")
sf_auth(token = "token.rds")

## End(Not run)
```

sf_batch_details_bulk *Returning the Details of a Batch in a Bulk API Job*

Description

This function returns detailed (row-by-row) information on an existing batch which has already been submitted to Bulk API Job

Usage

```
sf_batch_details_bulk(  
  job_id,  
  batch_id,  
  api_type = c("Bulk 1.0"),  
  verbose = FALSE  
)
```

Arguments

job_id	character; the Salesforce Id assigned to a submitted job as returned by sf_create_job_bulk . It will start with "750".
batch_id	character; the Salesforce Id assigned to a submitted batch as returned by sf_create_batches_bulk . It will start with "751".
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A `tbl_df`, formatted by Salesforce, with information containing the success or failure or certain rows in a submitted batch, unless the operation was query, then it is a `data.frame` containing the `result_id` for retrieving the recordset.

Note

This is a legacy function used only with Bulk 1.0.

References

https://developer.salesforce.com/docs/atlas.en-us.api_asynch.meta/api_asynch

Examples

```
## Not run:
job_info <- sf_create_job_bulk(operation = "query", object = "Account")
soql <- "SELECT Id, Name FROM Account LIMIT 10"
batch_query_info <- sf_submit_query_bulk(job_id = job_info$id, soql = soql)
batch_details <- sf_batch_details_bulk(job_id=batch_query_info$jobId,
                                     batch_id=batch_query_info$id)

sf_close_job_bulk(job_info$id)

## End(Not run)
```

sf_batch_status_bulk *Checking the Status of a Batch in a Bulk API Job*

Description

This function checks on and returns status information on an existing batch which has already been submitted to Bulk API Job

Usage

```
sf_batch_status_bulk(
  job_id,
  batch_id,
  api_type = c("Bulk 1.0"),
  verbose = FALSE
)
```

Arguments

job_id	character; the Salesforce Id assigned to a submitted job as returned by sf_create_job_bulk . It will start with "750".
batch_id	character; the Salesforce Id assigned to a submitted batch as returned by sf_create_batches_bulk . It will start with "751".
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A tbl_df of parameters defining the batch identified by the batch_id

Note

This is a legacy function used only with Bulk 1.0.

References

https://developer.salesforce.com/docs/atlas.en-us.api_asynch.meta/api_asynch

Examples

```
## Not run:
job_info <- sf_create_job_bulk(operation = "query", object = "Account")
soql <- "SELECT Id, Name FROM Account LIMIT 10"
batch_query_info <- sf_submit_query_bulk(job_id = job_info$id, soql = soql)
batch_status <- sf_batch_status_bulk(job_id = batch_query_info$jobId,
                                   batch_id = batch_query_info$id)
job_close_ind <- sf_close_job_bulk(job_info$id)
sf_get_job_bulk(job_info$id)

## End(Not run)
```

sf_close_job_bulk	<i>Close Bulk API Job</i>
-------------------	---------------------------

Description

This function closes a Job in the Salesforce Bulk API

Usage

```
sf_close_job_bulk(
  job_id,
  api_type = c("Bulk 1.0", "Bulk 2.0"),
  verbose = FALSE
)
```

Arguments

job_id	character; the Salesforce Id assigned to a submitted job as returned by sf_create_job_bulk . It will start with "750".
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A list of parameters defining the now closed job

Note

This is a legacy function used only with Bulk 1.0.

References

https://developer.salesforce.com/docs/atlas.en-us.api_asynch.meta/api_asynch

Examples

```
## Not run:
my_query <- "SELECT Id, Name FROM Account LIMIT 10"
job_info <- sf_create_job_bulk(operation='query', object='Account')
query_info <- sf_submit_query_bulk(job_id=job_info$id, soql=my_query)
recordset <- sf_query_result_bulk(job_id = query_info$jobId,
                                batch_id = query_info$id,
                                result_id = result$result)

sf_close_job_bulk(job_info$id)

## End(Not run)
```

sf_control

Auxiliary for Controlling Calls to Salesforce APIs

Description

Typically only used internally by functions when control parameters are passed through via dots (...), but it can be called directly to control the behavior of API calls. This function behaves exactly like `glm.control` for the `glm` function.

Usage

```
sf_control(
  AllOrNoneHeader = list(allOrNone = FALSE),
  AllowFieldTruncationHeader = list(allowFieldTruncation = FALSE),
  AssignmentRuleHeader = list(useDefaultRule = TRUE),
  DisableFeedTrackingHeader = list(disableFeedTracking = FALSE),
  DuplicateRuleHeader = list(allowSave = FALSE, includeRecordDetails = FALSE,
  runAsCurrentUser = TRUE),
  EmailHeader = list(triggerAutoResponseEmail = FALSE, triggerOtherEmail = FALSE,
  triggerUserEmail = TRUE),
  LocaleOptions = list(language = "en_US"),
  MruHeader = list(updateMru = FALSE),
  OwnerChangeOptions = list(options = list(list(execute = TRUE, type =
  "EnforceNewOwnerHasReadAccess"), list(execute = FALSE, type = "KeepAccountTeam"),
  list(execute = FALSE, type = "KeepSalesTeam"), list(execute = FALSE, type =
  "KeepSalesTeamGrantCurrentOwnerReadWriteAccess"), list(execute = FALSE, type =
  "SendEmail"), list(execute = FALSE, type = "TransferAllOwnedCases"), list(execute =
  TRUE, type = "TransferContacts"), list(execute = TRUE, type = "TransferContracts"),
```

```

list(execute = FALSE, type = "TransferNotesAndAttachments"), list(execute =
  TRUE, type = "TransferOpenActivities"), list(execute = TRUE, type =
  "TransferOrders"), list(execute = FALSE, type = "TransferOtherOpenOpportunities"),
list(execute = FALSE, type = "TransferOwnedClosedOpportunities"), list(execute =
  FALSE, type = "TransferOwnedOpenCases"), list(execute = FALSE, type =
  "TransferOwnedOpenOpportunities")),
QueryOptions = list(batchSize = 500),
UserTerritoryDeleteHeader = list(transferToUserId = NA),
BatchRetryHeader = list(`Sforce-Disable-Batch-Retry` = FALSE),
LineEndingHeader = list(`Sforce-Line-Ending` = NA),
PKChunkingHeader = list(`Sforce-Enable-PKChunking` = FALSE),
api_type = NULL,
operation = NULL
)

```

Arguments

AllOrNoneHeader

list; containing the allOrNone element with a value of TRUE or FALSE. This control specifies whether a call rolls back all changes unless all records are processed successfully. This control is available in SOAP, REST, and Metadata APIs for the following functions: [sf_create](#), [sf_delete](#), [sf_update](#), [sf_upsert](#), [sf_create_metadata](#), [sf_delete_metadata](#), [sf_update_metadata](#), [sf_upsert_metadata](#). For more information, read the Salesforce documentation [here](#).

AllowFieldTruncationHeader

list; containing the allowFieldTruncation element with a value of TRUE or FALSE. This control specifies the truncation behavior for some field types in SOAP API version 15.0 and later for the following functions: [sf_create](#), [sf_update](#), [sf_upsert](#). For more information, read the Salesforce documentation [here](#).

AssignmentRuleHeader

list; containing the useDefaultRule element with a value of TRUE or FALSE or the assignmentRuleId element. This control specifies the assignment rule to use when creating or updating an Account, Case, or Lead for the following functions: [sf_create](#), [sf_update](#), [sf_upsert](#). For more information, read the Salesforce documentation [here](#).

DisableFeedTrackingHeader

list; containing the disableFeedTracking element with a value of TRUE or FALSE. This control specifies whether the changes made in the current call are tracked in feeds for SOAP API calls made with the following functions: [sf_create](#), [sf_delete](#), [sf_update](#), [sf_upsert](#). For more information, read the Salesforce documentation [here](#).

DuplicateRuleHeader

list; containing the allowSave, includeRecordDetails, and runAsCurrentUser elements each with a value of TRUE or FALSE. This control specifies how duplicate rules should be applied when using the following functions: [sf_create](#), [sf_update](#), [sf_upsert](#). For more information, read the Salesforce documentation [here](#).

EmailHeader	list; containing the triggerAutoResponseEmail, triggerOtherEmail, and triggerUserEmail elements each with a value of TRUE or FALSE. This control determines if an email notification should be sent when a request is processed by SOAP API calls made with the following functions: sf_create , sf_delete , sf_update , sf_upsert , sf_reset_password . For more information, read the Salesforce documentation here .
LocaleOptions	list; containing the language element. This control specifies the language of the labels returned by the sf_describe_objects function using the SOAP API. The value must be a valid user locale (language and country), such as de_DE or en_GB. For more information, read the Salesforce documentation here . The list of valid user locales is available here .
MruHeader	list; containing the updateMru element with a value of TRUE or FALSE. This control indicates whether to update the list of most recently used items (TRUE) or not (FALSE) in the Recent Items section of the sidebar in the Salesforce user interface. This works for SOAP API calls made with the following functions: sf_create , sf_update , sf_upsert , sf_retrieve , sf_query . For more information, read the Salesforce documentation here .
OwnerChangeOptions	list; containing the options element. This control specifies the details of ownership of attachments and notes when a record's owner is changed. This works for SOAP API calls made with the following functions: sf_update , sf_upsert . For more information, read the Salesforce documentation here .
QueryOptions	list; containing the batchSize element. This control specifies the batch size for query results . This works for SOAP or REST API calls made with the following functions: sf_query , sf_retrieve . For more information, read the Salesforce documentation here .
UserTerritoryDeleteHeader	list; containing the transferToUserId element. This control specifies a user to whom open opportunities are assigned when the current owner is removed from a territory. This works for the sf_delete function using the SOAP API. For more information, read the Salesforce documentation here .
BatchRetryHeader	list; containing the Sforce-Disable-Batch-Retry element. When you create a bulk job, the Batch Retry control lets you disable retries for unfinished batches included in the job. This works for most operations run through the Bulk 1.0 API (e.g. sf_create (., api_type = "Bulk 1.0")) or creating a Bulk 1.0 job with sf_create_job_bulk . For more information, read the Salesforce documentation here .
LineEndingHeader	list; containing the Sforce-Line-Ending element. When you're creating a bulk upload job, the Line Ending control lets you specify whether line endings are read as line feeds (LFs) or as carriage returns and line feeds (CRLFs) for fields of type Text Area and Text Area (Long). This works for most operations run through the Bulk APIs and/or creating a Bulk job from scratch with sf_create_job_bulk . However, note that as of readr v1.3.1 all CSV files end with the line feed character ("\n") regardless of the operating system. So it is usually best to not specify this argument. For more information, read the Salesforce documentation here .

PKChunkingHeader	list; containing the Sforce-Enable-PKChunking element. Use the PK Chunking control to enable automatic primary key (PK) chunking for a bulk query job. This works for queries run through the Bulk 1.0 API either via <code>sf_query(. , api_type = "Bulk 1.0")</code> or <code>sf_query_bulk</code> . For more information, read the Salesforce documentation here .
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
operation	character; a string defining the type of operation being performed (e.g. "insert", "update", "upsert", "delete", "hardDelete", "query", "queryall").

Examples

```
## Not run:
this_control <- sf_control(DuplicateRuleHeader=list(allowSave=TRUE,
                                                  includeRecordDetails=FALSE,
                                                  runAsCurrentUser=TRUE))

new_contact <- c(FirstName = "Test", LastName = "Contact-CREATE")
new_record <- sf_create(new_contact, "Contact", control = this_control)

# specifying the controls directly and are picked up by dots
new_record <- sf_create(new_contact, "Contact",
                       DuplicateRuleHeader = list(allowSave=TRUE,
                                                  includeRecordDetails=FALSE,
                                                  runAsCurrentUser=TRUE))

## End(Not run)
```

sf_convert_lead	<i>Convert Leads</i>
-----------------	----------------------

Description

[Experimental]

Converts Leads each into an Account, Contact, as well as (optionally) an Opportunity.

Usage

```
sf_convert_lead(
  input_data,
  guess_types = TRUE,
  api_type = c("SOAP"),
  control = list(...),
  ...,
  verbose = FALSE
)
```

Arguments

<code>input_data</code>	named vector, matrix, data.frame, or tbl_df; data can be coerced into a data.frame. See the details below on how format your input data to control things like whether an opportunity will be created, an email will be sent to the new owner, and other control options.
<code>guess_types</code>	logical; indicating whether or not to use <code>col_guess()</code> to try and cast the data returned in the recordset. If TRUE then <code>col_guess()</code> is used, if FALSE then all fields will be returned as character. This is helpful when <code>col_guess()</code> will mangle field values in Salesforce that you'd like to preserve during translation into a tbl_df, like numeric looking values that must be preserved as strings ("48.0").
<code>api_type</code>	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
<code>control</code>	list; a list of parameters for controlling the behavior of the API call being used. For more information of what parameters are available look at the documentation for sf_control .
<code>...</code>	arguments passed to sf_control
<code>verbose</code>	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Details

When converting leads owned by a queue, the owner must be specified. This is because accounts and contacts cannot be owned by a queue. Below is a complete list of options to control the conversion process. Include a column in your input data to specify an option for each record. For example, if you want opportunities to not be created for each converted lead then add a column in your input data called `doNotCreateOpportunity` and set its value to TRUE. The default is FALSE which creates opportunities. The order of columns in the input data does not matter, just that the names match (case-insensitive).

leadId ID of the Lead to convert. Required.

convertedStatus Valid LeadStatus value for a converted lead. Required.

accountId Id of the Account into which the lead will be merged. Required only when updating an existing account, including person accounts. If no accountId is specified, then the API creates a new account.

contactId Id of the Contact into which the lead will be merged (this contact must be associated with the specified accountId, and an accountId must be specified). Required only when updating an existing contact. If no contactId is specified, then the API creates a new contact that is implicitly associated with the Account.

ownerId Specifies the Id of the person to own any newly created account, contact, and opportunity. If the client application does not specify this value, then the owner of the new object will be the owner of the lead.

- opportunityId** The Id of an existing opportunity to relate to the lead. The opportunityId and opportunityName arguments are mutually exclusive. Specifying a value for both results in an error. If doNotCreateOpportunity argument is TRUE, then no Opportunity is created and this field must be left blank; otherwise, an error is returned.
- doNotCreateOpportunity** Specifies whether to create an Opportunity during lead conversion (FALSE, the default) or not (TRUE). Set this flag to TRUE only if you do not want to create an opportunity from the lead. An opportunity is created by default.
- opportunityName** Name of the opportunity to create. If no name is specified, then this value defaults to the company name of the lead. The maximum length of this field is 80 characters. The opportunityId and opportunityName arguments are mutually exclusive. Specifying a value for both results in an error. If doNotCreateOpportunity argument is TRUE, then no Opportunity is created and this field must be left blank; otherwise, an error is returned.
- overwriteLeadSource** Specifies whether to overwrite the LeadSource field on the target Contact object with the contents of the LeadSource field in the source Lead object (TRUE), or not (FALSE, the default). To set this field to TRUE, the client application must specify a contactId for the target contact.
- sendNotificationEmail** Specifies whether to send a notification email to the owner specified in the ownerId (TRUE) or not (FALSE, the default).

[Salesforce Documentation](#)

Value

tbl_df with details of the converted record

Examples

```
## Not run:
# create a new lead at Grand Hotels & Resorts Ltd
new_lead <- tibble(FirstName = "Test", LastName = "Prospect",
                  Company = "Grand Hotels & Resorts Ltd")
rec <- sf_create(new_lead, "Lead")

# find the Id of matching account to link to
acct_id <- sf_query("SELECT Id from Account WHERE name = 'Grand Hotels & Resorts Ltd' LIMIT 1")

# create the row(s) for the leads to convert
to_convert <- tibble(leadId = rec$id,
                    convertedStatus = "Closed - Converted",
                    accountId = acct_id$id)
converted_lead <- sf_convert_lead(to_convert)

## End(Not run)
```

sf_copy_dashboard	<i>Copy a dashboard</i>
-------------------	-------------------------

Description**[Experimental]****Usage**

```
sf_copy_dashboard(dashboard_id, report_folder_id)
```

Arguments

dashboard_id	character; the Salesforce Id assigned to a created dashboard. It will start with "01Z".
report_folder_id	character; the Salesforce Id assigned to a created analytics folder (it will start with "00I").

Value

list

sf_copy_report	<i>Copy a report</i>
----------------	----------------------

Description**[Experimental]**

Creates a copy of a custom, standard, or public report by sending a POST request to the Report List resource.

Usage

```
sf_copy_report(report_id, name = NULL, verbose = FALSE)
```

Arguments

report_id	character; the Salesforce Id assigned to a created analytics report. It will start with "000".
name	character; a user-specified name for the newly cloned report. If left NULL, then the new name will be the same name as the report being cloned appended with " = Copy" that is prefixed with a number if that name is not unique. It is highly recommended to provide a name, if possible.

verbose logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

list representing the newly cloned report with up to 4 properties that describe the report:

attributes Report type along with the URL to retrieve common objects and joined metadata.

reportMetadata Unique identifiers for groupings and summaries.

reportTypeMetadata Fields in each section of a report type plus filter information for those fields.

reportExtendedMetadata Additional information about summaries and groupings.

Salesforce Documentation

- [Documentation](#)

See Also

Other Report functions: [sf_create_report\(\)](#), [sf_delete_report\(\)](#), [sf_describe_report_type\(\)](#), [sf_describe_report\(\)](#), [sf_execute_report\(\)](#), [sf_list_report_fields\(\)](#), [sf_list_report_filter_operators\(\)](#), [sf_list_report_types\(\)](#), [sf_list_reports\(\)](#), [sf_query_report\(\)](#), [sf_run_report\(\)](#), [sf_update_report\(\)](#)

Examples

```
## Not run:
# only the 200 most recently viewed reports
most_recent_reports <- sf_report_list()

# all possible reports in your Org
all_reports <- sf_query("SELECT Id, Name FROM Report")

# id of the report to copy
this_report_id <- all_reports$Id[1]

# not providing a name appends " - Copy" to the name of the report being cloned
report_details <- sf_copy_report(this_report_id)

# example of providing new name to the copied report
report_details <- sf_copy_report(this_report_id, "My New Copy of Report ABC")

## End(Not run)
```


sf_create

*Create Records***Description****[Stable]**

Adds one or more new records to your organization's data.

Usage

```
sf_create(
  input_data,
  object_name,
  api_type = c("SOAP", "REST", "Bulk 1.0", "Bulk 2.0"),
  guess_types = TRUE,
  control = list(...),
  ...,
  all_or_none = deprecated(),
  verbose = FALSE
)
```

Arguments

input_data	named vector, matrix, data.frame, or tbl_df; data can be coerced into a data.frame. If performing an update, upsert, or delete operation, then one column or field must be the Id of the record to modify or delete.
object_name	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
guess_types	logical; indicating whether or not to use col_guess() to try and cast the data returned in the recordset. If TRUE then col_guess() is used, if FALSE then all fields will be returned as character. This is helpful when col_guess() will mangle field values in Salesforce that you'd like to preserve during translation into a tbl_df, like numeric looking values that must be preserved as strings ("48.0").
control	list; a list of parameters for controlling the behavior of the API call being used. For more information of what parameters are available look at the documentation for sf_control .
...	arguments passed to sf_control or further downstream to sf_bulk_operation
all_or_none	logical; allows a call to roll back all changes unless all records are processed successfully.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

tbl_df of records with success indicator

Note

Because the SOAP and REST calls chunk data into batches of 200 records the AllOrNoneHeader will only apply to the success or failure of every batch of records and not all records submitted to the function.

Examples

```
## Not run:
n <- 2
new_contacts <- tibble(FirstName = rep("Test", n),
                      LastName = paste0("Contact", 1:n))
new_recs1 <- sf_create(new_contacts, object_name = "Contact")

# add control to allow the creation of records that violate a duplicate rules
new_recs2 <- sf_create(new_contacts, object_name = "Contact",
                      DuplicateRuleHeader=list(allowSave=TRUE,
                                              includeRecordDetails=FALSE,
                                              runAsCurrentUser=TRUE))

# example using the Bulk 1.0 API to insert records
new_recs3 <- sf_create(new_contacts, object_name = "Contact",
                      api_type = "Bulk 1.0")

## End(Not run)
```

sf_create_attachment *Create Attachments*

Description**[Experimental]**

This function will allow you to create attachments (and other blob data, such as Documents) by supplying file paths (absolute or relative) to media that you would like to upload to Salesforce along with accompanying metadata, such as a Description, Keywords, ParentId, FolderId, etc.

Usage

```
sf_create_attachment(
  attachment_input_data,
  object_name = c("Attachment", "Document"),
  api_type = c("SOAP", "REST", "Bulk 1.0", "Bulk 2.0"),
  control = list(...),
  ...,
  verbose = FALSE
)
```

Arguments

attachment_input_data	named vector, matrix, data.frame, or tbl_df; data can be coerced into a data.frame. The input must contain a column entitled 'Body' with an absolute or relative file path (unless creating a Document using a Url) along with other required fields depending on the object. If performing an update operation, then one column or field of the input must be the Id of the record to modify.
object_name	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
control	list; a list of parameters for controlling the behavior of the API call being used. For more information of what parameters are available look at the documentation for sf_control .
...	arguments passed to sf_control or further downstream to sf_bulk_operation
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

tbl_df with details of the created records

Salesforce Documentation

- [Attachment Object \(SOAP\)](#)
- [Document Object \(SOAP\)](#)
- [Insert or Update Blob Data](#)

Note

The length of any file name can't exceed 512 bytes (per Bulk 1.0 API). The SOAP API create call restricts these files to a maximum size of 25 MB. For a file attached to a Solution, the limit is 1.5 MB. The maximum email attachment size is 3 MB. You can only create or update documents to a maximum size of 5 MB. The REST API allows you to insert or update blob data limited to 50 MB of text data or 37.5 MB of base64-encoded data.

See Also

Other Attachment functions: [check_and_encode_files\(\)](#), [sf_delete_attachment\(\)](#), [sf_download_attachment\(\)](#), [sf_update_attachment\(\)](#)

Examples

```
## Not run:
# upload two PDFs from working directory to a particular record as Attachments
file_path1 <- here::here("doc1.pdf")
file_path2 <- here::here("doc2.pdf")
parent_record_id <- "0036A000002C6MmQAK"
attachment_details <- tibble(Body = c(file_path1, file_path2),
                             ParentId = rep(parent_record_id, 2))
result <- sf_create_attachment(attachment_details)

# the function supports inserting all blob content, just update the
# object_name argument to add the PDF as a Document instead of an Attachment
document_details <- tibble(Name = "doc1.pdf",
                           Description = "Test Document 1",
                           Body = file_path1,
                           FolderId = "0016A000001EgIwQAK", # replace with your FolderId!
                           Keywords = "example,test,document")
result <- sf_create_attachment(document_details, object_name = "Document")

# the Bulk API can be invoked using api_type="Bulk 1.0" which will automatically
# take a data.frame of Attachment info and create a ZIP file with CSV manifest
# that is required for that API
result <- sf_create_attachment(attachment_details, api_type="Bulk 1.0")

## End(Not run)
```

sf_create_batches_bulk

Add Batches to a Bulk API Job

Description

This function takes a data frame and submits it in batches to an already existing Bulk API Job by chunking into temp files

Usage

```
sf_create_batches_bulk(
  job_id,
  input_data,
  batch_size = NULL,
  api_type = c("Bulk 1.0", "Bulk 2.0"),
  verbose = FALSE
)
```

Arguments

job_id character; the Salesforce Id assigned to a submitted job as returned by [sf_create_job_bulk](#). It will start with "750".

input_data	named vector, matrix, data.frame, or tbl_df; data can be coerced into CSV file for submitting as batch request
batch_size	integer; the number of individual records to be included in a single batch uploaded to the Bulk APIs (1.0 or 2.0).
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

a tbl_df containing details of each batch

References

https://developer.salesforce.com/docs/atlas.en-us.api_asynch.meta/api_asynch

Examples

```
## Not run:
# NOTE THAT YOU MUST FIRST CREATE AN EXTERNAL ID FIELD CALLED My_External_Id
# BEFORE RUNNING THIS EXAMPLE
# inserting 2 records
my_data <- tibble(Name=c('New Record 1', 'New Record 2'),
                  My_External_Id__c=c('11111', '22222'))
job_info <- sf_create_job_bulk(operation='insert',
                              object='Account')
batches_ind <- sf_create_batches_bulk(job_id = job_info$id,
                                     input_data = my_data)

# upserting 3 records
my_data2 <- tibble(My_External_Id__c=c('11111', '22222', '99999'),
                  Name=c('Updated_Name1', 'Updated_Name2', 'Upserted_Record'))
job_info <- sf_create_job_bulk(operation='upsert',
                              externalIdFieldName='My_External_Id__c',
                              object='Account')
batches_ind <- sf_create_batches_bulk(job_id = job_info$id,
                                     input_data = my_data2)

sf_get_job_bulk(job_info$id)

## End(Not run)
```

sf_create_job_bulk *Create Bulk API Job*

Description

This function initializes a Job in the Salesforce Bulk API

Usage

```

sf_create_job_bulk(
  operation = c("insert", "delete", "upsert", "update", "hardDelete", "query",
    "queryall"),
  object_name,
  soql = NULL,
  external_id_fieldname = NULL,
  api_type = c("Bulk 1.0", "Bulk 2.0"),
  content_type = c("CSV", "ZIP_CSV", "ZIP_XML", "ZIP_JSON"),
  concurrency_mode = c("Parallel", "Serial"),
  column_delimiter = c("COMMA", "TAB", "PIPE", "SEMICOLON", "CARET", "BACKQUOTE"),
  control = list(...),
  ...,
  line_ending = deprecated(),
  verbose = FALSE
)

```

Arguments

<code>operation</code>	character; a string defining the type of operation being performed (e.g. "insert", "update", "upsert", "delete", "hardDelete", "query", "queryall").
<code>object_name</code>	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
<code>soql</code>	character; a string defining a SOQL query (e.g. "SELECT Id, Name FROM Account").
<code>external_id_fieldname</code>	character; string identifying a custom field on the object that has been set as an "External ID" field. This field is used to reference objects during upserts to determine if the record already exists in Salesforce or not.
<code>api_type</code>	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
<code>content_type</code>	character; being one of 'CSV', 'ZIP_CSV', 'ZIP_XML', or 'ZIP_JSON' to indicate the type of data being passed to the Bulk APIs. For the Bulk 2.0 API the only valid value (and the default) is 'CSV'.
<code>concurrency_mode</code>	character; either "Parallel" or "Serial" that specifies whether batches should be completed sequentially or in parallel. Use "Serial" only if lock contentions persist with in "Parallel" mode. Note: this argument is only used in the Bulk 1.0 API and will be ignored in calls using the Bulk 2.0 API.
<code>column_delimiter</code>	character; indicating the column delimiter used for CSV job data. The default value is COMMA. Valid values are: "BACKQUOTE", "CARET", "COMMA", "PIPE", "SEMICOLON", and "TAB", but this package only accepts and uses "COMMA". Also, note that this argument is only used in the Bulk 2.0 API and will be ignored in calls using the Bulk 1.0 API.

control	list; a list of parameters for controlling the behavior of the API call being used. For more information of what parameters are available look at the documentation for sf_control .
...	arguments passed to sf_control
line_ending	character; indicating the The line ending used for CSV job data, marking the end of a data row. The default is NULL and determined by the operating system using "CRLF" for Windows machines and "LF" for Unix machines. NOTE: As of readr v1.3.1 all CSV files end with the line feed character ("\n") regardless of the operating system. So it is usually best to not specify this argument.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A tbl_df parameters defining the created job, including id

References

https://developer.salesforce.com/docs/atlas.en-us.api_asynch.meta/api_asynch

Examples

```
## Not run:
# insert into Account
job_info <- sf_create_job_bulk(operation='insert', object_name='Account')

# delete from Account
job_info <- sf_create_job_bulk(operation='delete', object_name='Account')

# update into Account
job_info <- sf_create_job_bulk(operation='update', object_name='Account')

# upsert into Account
job_info <- sf_create_job_bulk(operation='upsert',
                              externalIdFieldName='My_External_Id__c',
                              object_name='Account')

# insert attachments
job_info <- sf_create_job_bulk(operation='insert', object_name='Attachment')

# query leads
job_info <- sf_create_job_bulk(operation='query', object_name='Lead')

## End(Not run)
```

sf_create_metadata *Create Object or Field Metadata in Salesforce*

Description

[Experimental]

This function takes a list of Metadata components and sends them to Salesforce for creation

Usage

```
sf_create_metadata(
  metadata_type,
  metadata,
  control = list(...),
  ...,
  all_or_none = deprecated(),
  verbose = FALSE
)
```

Arguments

metadata_type	character; string on what type of metadata to create.
metadata	list; metadata components to be created formatted as XML before being sent via API.
control	list; a list of parameters for controlling the behavior of the API call being used. For more information of what parameters are available look at the documentation for sf_control .
...	arguments passed to sf_control
all_or_none	logical; allows a call to roll back all changes unless all records are processed successfully.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A tbl_df containing the creation result for each submitted metadata component

See Also

[Salesforce Documentation](#)


```
## End(Not run)
```

```
sf_create_report      Create a report
```

Description

[Experimental]

Create a new report using a POST request. To create a report, you only have to specify a name and report type to create a new report; all other metadata properties are optional. It is recommended to use the metadata from existing reports pulled using [sf_describe_report](#) as a guide on how to specify the properties of a new report.

Usage

```
sf_create_report(
  name = NULL,
  report_type = NULL,
  report_metadata = NULL,
  verbose = FALSE
)
```

Arguments

name	character; a user-specified name for the report.
report_type	character; a character representing the type of report to retrieve the meta-data information on. A list of valid report types that can be created using this function will be available in the <code>reportTypes.type</code> column of results returned sf_list_report_types . (e.g. AccountList, AccountContactRole, OpportunityHistory, etc.)
report_metadata	list; a list representing the properties to create the report with. The names of the list must be one or more of the 3 accepted metadata properties: <code>reportMetadata</code> , <code>reportTypeMetadata</code> , <code>reportExtendedMetadata</code> .
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

list representing the newly cloned report with up to 4 properties that describe the report:

attributes Report type along with the URL to retrieve common objects and joined metadata.

reportMetadata Unique identifiers for groupings and summaries.

reportTypeMetadata Fields in each section of a report type plus filter information for those fields.

reportExtendedMetadata Additional information about summaries and groupings.

Salesforce Documentation

- [Documentation](#)

See Also

Other Report functions: [sf_copy_report\(\)](#), [sf_delete_report\(\)](#), [sf_describe_report_type\(\)](#), [sf_describe_report\(\)](#), [sf_execute_report\(\)](#), [sf_list_report_fields\(\)](#), [sf_list_report_filter_operators\(\)](#), [sf_list_report_types\(\)](#), [sf_list_reports\(\)](#), [sf_query_report\(\)](#), [sf_run_report\(\)](#), [sf_update_report\(\)](#)

Examples

```
## Not run:
# creating a blank report using just the name and type
my_new_report <- sf_create_report("Top Accounts Report", "AccountList")

# creating a report with additional metadata by grabbing an existing report
# and modifying it slightly (only the name in this case)

# first, grab all possible reports in your Org
all_reports <- sf_query("SELECT Id, Name FROM Report")

# second, get the id of the report to copy
this_report_id <- all_reports$Id[1]

# third, pull down its metadata and update the name
report_describe_list <- sf_describe_report(this_report_id)
report_describe_list$reportMetadata$name <- "TEST API Report Creation"

# fourth, create the report by passing the metadata
my_new_report <- sf_create_report(report_metadata=report_describe_list)

## End(Not run)
```

sf_delete

Delete Records

Description

[Stable]

Deletes one or more records from your organization's data.

Usage

```
sf_delete(
  ids,
  object_name = NULL,
  api_type = c("REST", "SOAP", "Bulk 1.0", "Bulk 2.0"),
  guess_types = TRUE,
```

```

control = list(...),
...,
all_or_none = deprecated(),
verbose = FALSE
)

```

Arguments

ids	vector, matrix, data.frame, or tbl_df; if not a vector, there must be a column called Id (case insensitive) that can be passed in the request.
object_name	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
guess_types	logical; indicating whether or not to use col_guess() to try and cast the data returned in the recordset. If TRUE then col_guess() is used, if FALSE then all fields will be returned as character. This is helpful when col_guess() will mangle field values in Salesforce that you'd like to preserve during translation into a tbl_df, like numeric looking values that must be preserved as strings ("48.0").
control	list; a list of parameters for controlling the behavior of the API call being used. For more information of what parameters are available look at the documentation for sf_control .
...	arguments passed to sf_control or further downstream to sf_bulk_operation
all_or_none	logical; allows a call to roll back all changes unless all records are processed successfully.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

tbl_df of records with success indicator

Note

Because the SOAP and REST calls chunk data into batches of 200 records the AllOrNoneHeader will only apply to the success or failure of every batch of records and not all records submitted to the function.

Examples

```

## Not run:
n <- 3
new_contacts <- tibble(FirstName = rep("Test", n),
                      LastName = paste0("Contact", 1:n))
new_records <- sf_create(new_contacts, object_name="Contact")

```

```

deleted_first <- sf_delete(new_records$id[1], object_name = "Contact")

# add the control to do an "All or None" deletion of the remaining records
deleted_rest <- sf_delete(new_records$id[2:3], object_name = "Contact",
                        AllOrNoneHeader = list(allOrNone = TRUE))

## End(Not run)

```

sf_delete_attachment *Delete Attachments*

Description

[Experimental]

This function is a wrapper around [sf_delete](#) that accepts a list of Ids and assumes that they are in the Attachment object and should be deleted. This function is solely provided as a convenience and to provide the last attachment function to parallel the CRUD functionality for all other records.

Usage

```

sf_delete_attachment(
  ids,
  object_name = c("Attachment"),
  api_type = c("SOAP", "REST", "Bulk 1.0", "Bulk 2.0"),
  ...,
  verbose = FALSE
)

```

Arguments

ids	vector, matrix, data.frame, or tbl_df; if not a vector, there must be a column called Id (case insensitive) that can be passed in the request.
object_name	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
...	arguments passed to sf_control or further downstream to sf_bulk_operation
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

tbl_df with details of the deleted records

Note

Because the SOAP and REST calls chunk data into batches of 200 records the AllOrNoneHeader will only apply to the success or failure of every batch of records and not all records submitted to the function.

See Also

Other Attachment functions: [check_and_encode_files\(\)](#), [sf_create_attachment\(\)](#), [sf_download_attachment\(\)](#), [sf_update_attachment\(\)](#)

Examples

```
## Not run:
# upload a PDF to a particular record as an Attachment
file_path <- system.file("extdata",
                        "data-wrangling-cheatsheet.pdf",
                        package = "salesforcer")
parent_record_id <- "0036A000002C6MmQAK" # replace with your own ParentId!
attachment_details <- tibble(Body = file_path, ParentId = parent_record_id)
create_result <- sf_create_attachment(attachment_details)

# now delete the attachment
# note that the function below is just running the following!
# sf_delete(ids = create_result$id)
sf_delete_attachment(ids = create_result$id)

## End(Not run)
```

sf_delete_dashboard *Delete a dashboard*

Description

[Experimental]

Usage

```
sf_delete_dashboard/dashboard_id)
```

Arguments

dashboard_id character; the Salesforce Id assigned to a created dashboard. It will start with "01Z".

Value

logical

sf_delete_job_bulk *Delete Bulk API Job*

Description

Delete Bulk API Job

Usage

```
sf_delete_job_bulk(job_id, api_type = c("Bulk 2.0"), verbose = FALSE)
```

Arguments

job_id	character; the Salesforce Id assigned to a submitted job as returned by sf_create_job_bulk . It will start with "750".
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Examples

```
## Not run:  
job_info <- sf_create_job_bulk('insert', 'Account')  
sf_abort_job_bulk(job_info$id)  
sf_delete_job_bulk(job_info$id)  
  
## End(Not run)
```

sf_delete_metadata *Delete Object or Field Metadata in Salesforce*

Description

[Experimental]

This function takes a request of named elements in Salesforce and deletes them.

Usage

```
sf_delete_metadata(  
  metadata_type,  
  object_names,  
  control = list(...),  
  ...,  
  all_or_none = deprecated(),  
  verbose = FALSE  
)
```

Arguments

metadata_type	character; string on what type of metadata to create.
object_names	a character vector of names that we wish to read metadata for
control	list; a list of parameters for controlling the behavior of the API call being used. For more information of what parameters are available look at the documentation for sf_control .
...	arguments passed to sf_control
all_or_none	logical; allows a call to roll back all changes unless all records are processed successfully.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A data.frame containing the creation result for each submitted metadata component

See Also

[sf_list_metadata](#), [Salesforce Documentation](#)

Examples

```
## Not run:  
metadata_info <- sf_delete_metadata(metadata_type = 'CustomObject',  
                                   object_names = c('Custom_Account25__c'))  
  
## End(Not run)
```

sf_delete_report	<i>Delete a report</i>
------------------	------------------------

Description

[Experimental]

Delete a report by sending a DELETE request to the Report resource. Deleted reports are moved to the Recycle Bin.

Usage

```
sf_delete_report(report_id, verbose = FALSE)
```

Arguments

report_id	character; the Salesforce Id assigned to a created analytics report. It will start with "000".
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

logical indicating whether the report was deleted. This function will return TRUE if successful in deleting the report.

Salesforce Documentation

- [Documentation](#)

See Also

Other Report functions: [sf_copy_report\(\)](#), [sf_create_report\(\)](#), [sf_describe_report_type\(\)](#), [sf_describe_report\(\)](#), [sf_execute_report\(\)](#), [sf_list_report_fields\(\)](#), [sf_list_report_filter_operators\(\)](#), [sf_list_report_types\(\)](#), [sf_list_reports\(\)](#), [sf_query_report\(\)](#), [sf_run_report\(\)](#), [sf_update_report\(\)](#)

Examples

```
## Not run:
# first, grab all possible reports in your Org
all_reports <- sf_query("SELECT Id, Name FROM Report")

# second, get the id of the report to delete
this_report_id <- all_reports$Id[1]

# third, delete that report using its Id
success <- sf_delete_report(this_report_id)
```

```
## End(Not run)
```

```
sf_delete_report_instance  
    Delete a report instance
```

Description

[Experimental]

If the given report instance has a status of Success or Error, delete the report instance.

Usage

```
sf_delete_report_instance(report_id, report_instance_id, verbose = FALSE)
```

Arguments

report_id	character; the Salesforce Id assigned to a created analytics report. It will start with "000".
report_instance_id	character; the Salesforce Id assigned to a created analytics report instance (an asynchronous run). It will start with "0LG".
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

logical indicating whether the report instance was deleted. This function will return TRUE if successful in deleting the report instance.

Salesforce Documentation

- [Documentation](#)

See Also

Other Report Instance functions: [sf_get_report_instance_results\(\)](#), [sf_list_report_instances\(\)](#)

Examples

```
## Not run:
# first, get the Id of a report in your Org
all_reports <- sf_query("SELECT Id, Name FROM Report")
this_report_id <- all_reports$Id[1]

# second, ensure that report has been executed at least once asynchronously
results <- sf_execute_report(this_report_id, async=TRUE)

# check if that report has succeeded, if so (or if it errored), then delete
instance_list <- sf_list_report_instances(this_report_id)
instance_status <- instance_list[[which(instance_list$id == results$id), "status"]]

## End(Not run)
```

sf_describe_dashboard *Describe a dashboard*

Description

[Experimental]

Returns metadata for the specified dashboard, including dashboard components, filters, layout, and the running user.

Usage

```
sf_describe_dashboard(dashboard_id, as_tbl = TRUE, verbose = FALSE)
```

Arguments

dashboard_id	character; the Salesforce Id assigned to a created dashboard. It will start with "01Z".
as_tbl	logical; an indicator of whether to convert the parsed JSON into a tbl_df.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

list or tbl_df depending on the value of argument as_tbl

See Also

- [Salesforce Documentation](#)
- [Salesforce Example](#)

sf_describe_dashboard_components
Describe dashboard components

Description**[Experimental]****Usage**

```
sf_describe_dashboard_components(dashboard_id, component_ids = c(character(0)))
```

Arguments

dashboard_id character; the Salesforce Id assigned to a created dashboard. It will start with "01Z".

component_ids character; a vector of Unique Salesforce Ids of a dashboard component.

Value

list

sf_describe_metadata *Describe the Metadata in an Organization*

Description**[Experimental]**

This function returns details about the organization metadata

Usage

```
sf_describe_metadata(verbose = FALSE)
```

Arguments

verbose logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A tbl_df

References

https://developer.salesforce.com/docs/atlas.en-us.api_meta.meta/api_meta

Examples

```
## Not run:
# describe metadata for the organization associated with the session
metadata_info <- sf_describe_metadata()

## End(Not run)
```

sf_describe_objects *SObject Basic Information*

Description

[Stable]

Describes the individual metadata for the specified object.

Usage

```
sf_describe_objects(
  object_names,
  api_type = c("SOAP", "REST"),
  control = list(...),
  ...,
  verbose = FALSE
)
```

Arguments

object_names	character; the name of one or more Salesforce objects that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
control	list; a list of parameters for controlling the behavior of the API call being used. For more information of what parameters are available look at the documentation for sf_control .
...	arguments passed to sf_control
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

list

See Also

[REST API Documentation](#), [REST API Example](#)

Examples

```
## Not run:
account_metadata <- sf_describe_objects("Account")
account_metadata_SOAP <- sf_describe_objects("Account", api_type="SOAP")
multiple_objs_metadata <- sf_describe_objects(c("Contact", "Lead"))

account_metadata_REST <- sf_describe_objects("Account", api_type="REST")

## End(Not run)
```

sf_describe_object_fields

Describe Object Fields

Description

[Stable]

This function takes the name of an object in Salesforce and returns a description of the fields on that object by returning a tibble with one row per field.

Usage

```
sf_describe_object_fields(object_name)
```

Arguments

`object_name` character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").

Value

A `tbl_df` containing one row per field for the requested object.

Note

The tibble only contains the fields that the user can view, as defined by the user's field-level security settings.

Examples

```
## Not run:
acct_fields <- sf_describe_object_fields('Account')

## End(Not run)
```

sf_describe_report *Describe a report*

Description

[Experimental]

Retrieves report, report type, and related metadata for a tabular, summary, or matrix report.

Usage

```
sf_describe_report(report_id, verbose = FALSE)
```

Arguments

report_id	character; the Salesforce Id assigned to a created analytics report. It will start with "000".
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Details

- Report metadata gives information about the report as a whole. Tells you such things as, the report type, format, the fields that are summaries, row or column groupings, filters saved to the report, and so on.
- Report type metadata tells you about all the fields available in the report type, those you can filter, and by what filter criteria.
- Report extended metadata tells you about the fields that are summaries, groupings, and contain record details in the report.

Value

list containing up to 4 properties that describe the report:

attributes Report type along with the URL to retrieve common objects and joined metadata.

reportMetadata Unique identifiers for groupings and summaries.

reportTypeMetadata Fields in each section of a report type plus filter information for those fields.

reportExtendedMetadata Additional information about summaries and groupings.

Salesforce Documentation

- [Documentation](#)
- [Example](#)

See Also

Other Report functions: [sf_copy_report\(\)](#), [sf_create_report\(\)](#), [sf_delete_report\(\)](#), [sf_describe_report_type\(\)](#), [sf_execute_report\(\)](#), [sf_list_report_fields\(\)](#), [sf_list_report_filter_operators\(\)](#), [sf_list_report_types\(\)](#), [sf_list_reports\(\)](#), [sf_query_report\(\)](#), [sf_run_report\(\)](#), [sf_update_report\(\)](#)

Examples

```
## Not run:
# pull a list of up to 200 recent reports
# (for a full list you must use sf_query on the Report object)
reports <- sf_list_reports()

# id for the first report
reports[[1,"id"]]

# describe that report type
described_report <- sf_describe_report_type(unique_report_types[[1,"id"]])

## End(Not run)
```

```
sf_describe_report_type
```

Describe a report type

Description**[Experimental]**

Return metadata about a report type.

Usage

```
sf_describe_report_type(report_type, verbose = FALSE)
```

Arguments

report_type	character; a character representing the type of report to retrieve the metadata information on. A list of valid report types that can be described using this function will be available in the reportTypes.type column of results returned sf_list_report_types . (e.g. AccountList, AccountContactRole, OpportunityHistory, etc.)
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

list containing up to 4 properties that describe the report:

attributes Report type along with the URL to retrieve common objects and joined metadata.

reportMetadata Unique identifiers for groupings and summaries.

reportTypeMetadata Fields in each section of a report type plus filter information for those fields.

reportExtendedMetadata Additional information about summaries and groupings.

Salesforce Documentation

- [Documentation](#)

See Also

Other Report functions: [sf_copy_report\(\)](#), [sf_create_report\(\)](#), [sf_delete_report\(\)](#), [sf_describe_report\(\)](#), [sf_execute_report\(\)](#), [sf_list_report_fields\(\)](#), [sf_list_report_filter_operators\(\)](#), [sf_list_report_types\(\)](#), [sf_list_reports\(\)](#), [sf_query_report\(\)](#), [sf_run_report\(\)](#), [sf_update_report\(\)](#)

Examples

```
## Not run:
reports <- sf_list_report_types()
unique_report_types <- reports %>% distinct(reportTypes.type)

# first unique report type
unique_report_types[[1,1]]

# describe that report type
described_report <- sf_describe_report_type(unique_report_types[[1,1]])

## End(Not run)
```

sf_download_attachment

Download an Attachment

Description

[Stable]

This function will allow you to download an attachment to disk based on the attachment body, file name, and path.

Usage

```
sf_download_attachment(
  body,
  name = NULL,
  sf_id = NULL,
  object_name = c("Attachment", "Document"),
  path = "."
)
```

Arguments

body	character; a URL path to the body of the attachment in Salesforce, typically retrieved by sf_query on the Attachment object. Alternatively, you can specify the Salesforce Id of the Attachment.
name	character; the name of the file you would like to save the content to. Note that you should include the file extension in this name and if this argument is left NULL, then a query will be made to determine the name and file extension needed. This process may result in a slower download process, so attempt to provide the body and name arguments whenever possible for the best performance.
sf_id	character; a Salesforce generated Id that uniquely identifies a record.
object_name	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
path	character; a directory path where to create file, defaults to the current directory.

Value

character; invisibly return the file path of the downloaded content

Salesforce Documentation

- [Get Attachment Content from a Record](#)

See Also

Other Attachment functions: [check_and_encode_files\(\)](#), [sf_create_attachment\(\)](#), [sf_delete_attachment\(\)](#), [sf_update_attachment\(\)](#)

Examples

```
## Not run:
# downloading all attachments for a Parent record
# if your attachment name doesn't include the extension, then you can use the
# ContentType column to append it to the Name, if needed
queried_attachments <- sf_query("SELECT Id, Body, Name, ContentType
                                FROM Attachment
                                WHERE ParentId = '00016A0000035mJ5'")
mapply(sf_download_attachment, queried_attachments$Body, queried_attachments$Name)
```

```
# downloading an attachment by its Id
# (the file name will be the same as it exists in Salesforce)
sf_download_attachment(sf_id = queried_attachments$Id[1])

## End(Not run)
```

sf_empty_recycle_bin *Empty Recycle Bin*

Description

[Experimental]

Delete records from the recycle bin immediately and permanently.

Usage

```
sf_empty_recycle_bin(ids, api_type = c("SOAP"), verbose = FALSE)
```

Arguments

ids	vector, matrix, data.frame, or tbl_df; if not a vector, there must be a column called Id (case-insensitive) that can be passed in the request
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Details

When emptying recycle bins, consider the following rules and guidelines:

- The logged in user can delete any record that he or she can query in their Recycle Bin, or the recycle bins of any subordinates. If the logged in user has Modify All Data permission, he or she can query and delete records from any Recycle Bin in the organization.
- Do not include the IDs of any records that will be cascade deleted, or an error will occur.
- Once records are deleted using this call, they cannot be undeleted using `link{sf_undelete}`
- After records are deleted from the Recycle Bin using this call, they can be queried using the `queryall` argument for some time. Typically this time is 24 hours, but may be shorter or longer.

Value

tbl_df of records with success indicator

References

https://developer.salesforce.com/docs/atlas.en-us.api.meta/api/sforce_api_calls_emptyrecyclebin.htm

Examples

```
## Not run:
new_contact <- c(FirstName = "Test", LastName = "Contact")
new_records <- sf_create(new_contact, object_name = "Contact")
delete <- sf_delete(new_records$id[1],
                   AllOrNoneHeader = list(allOrNone = TRUE))
is_deleted <- sf_query(sprintf("SELECT Id, IsDeleted FROM Contact WHERE Id='%s'",
                              new_records$id[1]),
                      queryall = TRUE)
hard_deleted <- sf_empty_recycle_bin(new_records$id[1])

# confirm that the record really is gone (can't be deleted)
undelete <- sf_undelete(new_records$id[1])
# if you use queryall you still will find the record for ~24hrs
is_deleted <- sf_query(sprintf("SELECT Id, IsDeleted FROM Contact WHERE Id='%s'",
                              new_records$id[1]), queryall = TRUE)

# As of v48.0 (Spring 2020) you can query the Ids of all records in the Recycle
# Bin, which makes it easier to clear the entire bin because you can grab the
# Ids of the records first
records_in_bin <- sf_query("SELECT Record FROM DeleteEvent")
records_emptied_from_bin <- sf_delete(records_in_bin$Record)

## End(Not run)
```

sf_execute_report	<i>Execute a report</i>
-------------------	-------------------------

Description

[Experimental]

Get summary data with or without details by running a report synchronously or asynchronously through the API. When you run a report, the API returns data for the same number of records that are available when the report is run in the Salesforce user interface. Include the `filters` argument in your request to get specific results on the fly by passing dynamic filters, groupings, and aggregates in the report metadata. Finally, you may want to use [sf_run_report](#).

Usage

```
sf_execute_report(
  report_id,
  async = FALSE,
  include_details = TRUE,
```

```

    labels = TRUE,
    guess_types = TRUE,
    bind_using_character_cols = deprecated(),
    as_tbl = TRUE,
    report_metadata = NULL,
    verbose = FALSE
  )

```

Arguments

report_id	character; the Salesforce Id assigned to a created analytics report. It will start with "000".
async	logical; an indicator, by default set to TRUE, which executes the report asynchronously. If executed asynchronously, this function will return a list of attributes of the created report instance. The results can be pulled down by providing the report id and instance id to the function sf_get_report_instance_results . Refer to the details of the documentation on why executing a report asynchronously is preferred.
include_details	logical; an indicator applying to a synchronous indicating whether the run should return summary data with details.
labels	logical; an indicator of whether the returned data should be the label (i.e. formatted value) or the actual value. By default, the labels are returned because these are what appear in the Salesforce dashboard and more closely align with the column names. For example, "Account.Name" label may be "Account B" and the value 0016A00000035mJEQAY. The former (label) more accurately reflects the "Account.Name".
guess_types	logical; indicating whether or not to use <code>col_guess()</code> to try and cast the data returned in the recordset. If TRUE then <code>col_guess()</code> is used, if FALSE then all fields will be returned as character. This is helpful when <code>col_guess()</code> will mangle field values in Salesforce that you'd like to preserve during translation into a <code>tbl_df</code> , like numeric looking values that must be preserved as strings ("48.0").
bind_using_character_cols	logical; an indicator of whether to cast the data to all character columns to ensure that <code>bind_rows</code> does not fail because two paginated recordsets have differing datatypes for the same column. Set this to TRUE rarely, typically only when having this set to FALSE returns an error or you want all columns in the data to be character.
as_tbl	logical; an indicator of whether to convert the parsed JSON into a <code>tbl_df</code> .
report_metadata	list; a list with one element named "reportMetadata" having additional list elements underneath. All possible elements of reportMetadata are documented HERE , but you will most commonly only need to specify the following 3 elements to filter or query the results of an existing report: reportFormat A character specifying the format of the report with possible values: "TABULAR", "SUMMARY", "MATRIX", or "MULTI_BLOCK".

	reportBooleanFilter A character denoting how the individual filters specified in reportFilters should be combined. For example, "(1OR4)AND2AND3".
	reportFilters A list of reportFilter specifications. Each must be a list with 3 elements: 1) column, 2) operator, and 3) value. You can find out how certain field types can be filtered by reviewing the results of sf_list_report_filter_operators .
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Details

Run a report synchronously if you expect it to finish running quickly. Otherwise, we recommend that you run reports through the API asynchronously for these reasons:

- Long running reports have a lower risk of reaching the timeout limit when run asynchronously.
- The 2-minute overall Salesforce API timeout limit doesn't apply to asynchronous runs.
- The Salesforce Reports and Dashboards REST API can handle a higher number of asynchronous run requests at a time.
- Since the results of an asynchronously run report are stored for a 24-hr rolling period, they're available for recurring access.

Before you filter a report, it's helpful to check the following properties in the metadata that tell you if a field can be filtered, the values and criteria you can filter by, and filters that already exist in the report:

- filterable
- filterValues
- dataTypeFilterOperatorMap
- reportFilters

Value

tbl_df by default, but a list when as_tbl=FALSE, which means that the content from the API is converted from JSON to a list with no other post-processing.

Salesforce Documentation

- [Sync Documentation](#)
- [Sync Example](#)
- [Async Documentation](#)
- [Async Example](#)
- [Filtering Results](#)

See Also

Other Report functions: [sf_copy_report\(\)](#), [sf_create_report\(\)](#), [sf_delete_report\(\)](#), [sf_describe_report_type\(\)](#), [sf_describe_report\(\)](#), [sf_list_report_fields\(\)](#), [sf_list_report_filter_operators\(\)](#), [sf_list_report_types\(\)](#), [sf_list_reports\(\)](#), [sf_query_report\(\)](#), [sf_run_report\(\)](#), [sf_update_report\(\)](#)

Examples

```
## Not run:
# first, get the Id of a report in your Org
all_reports <- sf_query("SELECT Id, Name FROM Report")
this_report_id <- all_reports$Id[1]

# then execute a synchronous report that will wait for the results
results <- sf_execute_report(this_report_id)

# alternatively, you can execute an async report and then grab its results when done
# - The benefit of an async report is that the results will be stored for up to
#   24 hours for faster recall, if needed
results <- sf_execute_report(this_report_id, async=TRUE)

# check if completed and proceed if the status is "Success"
instance_list <- sf_list_report_instances(report_id)
instance_status <- instance_list[[which(instance_list$id == results$id), "status"]]
if(instance_status == "Success"){
  results <- sf_get_report_instance_results(report_id, results$id)
}

# Note: For more complex execution use the report_metadata argument.
# This can be done by building the list from scratch based on Salesforce
# documentation (not recommended) or pulling down the existing reportMetadata
# property of the report and modifying the list slightly (recommended).
# In addition, for relatively simple changes, you can leverage the convenience
# function sf_report_wrapper() which makes it easier to retrieve report results
report_details <- sf_describe_report(this_report_id)
report_metadata <- list(reportMetadata = report_details$reportMetadata)
report_metadata$reportMetadata$showGrandTotal <- FALSE
report_metadata$reportMetadata$showSubtotals <- FALSE
fields <- sf_execute_report(this_report_id,
                           report_metadata = report_metadata)

## End(Not run)
```

sf_filter_dashboard_operators_list

List dashboard filter operators

Description

[Experimental]

Usage

```
sf_filter_dashboard_operators_list()
```

Value

```
list
```

```
sf_filter_dashboard_options_analysis
```

Get an analysis of the filter options for a dashboard

Description

[Experimental]

Usage

```
sf_filter_dashboard_options_analysis(  
  dashboard_id,  
  filter_columns = list(),  
  options = list()  
)
```

Arguments

dashboard_id	character; the Salesforce Id assigned to a created dashboard. It will start with "01Z".
filter_columns	list; a list of fields from the source report which you check filter values against. Each object in the array has these properties:...
options	list; a list of objects describing a dashboard filter. Each object has these properties:...

Value

```
list
```

sf_find_duplicates *Find Duplicate Records*

Description

[Experimental]

Performs rule-based searches for duplicate records.

Usage

```
sf_find_duplicates(  
  search_criteria,  
  object_name,  
  include_record_details = FALSE,  
  guess_types = TRUE,  
  verbose = FALSE  
)
```

Arguments

search_criteria	list; a list of fields and their values that would constitute a match. For example, list(FirstName="Marc", Company="Salesforce")
object_name	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
include_record_details	logical; get fields and values for records detected as duplicates by setting this property to TRUE. Get only record IDs for records detected as duplicates by setting this property to FALSE.
guess_types	logical; indicating whether or not to use col_guess() to try and cast the data returned in the recordset. If TRUE then col_guess() is used, if FALSE then all fields will be returned as character. This is helpful when col_guess() will mangle field values in Salesforce that you'd like to preserve during translation into a tbl_df, like numeric looking values that must be preserved as strings ("48.0").
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

tbl_df of records found to be duplicates by the match rules

Note

You must have active duplicate rules for the supplied object before running this function. The `object_name` argument refers to using that object's duplicate rules on the search criteria to determine which records in other objects are duplicates.

Examples

```
## Not run:
# use the duplicate rules associated with the Lead object on the search
# criteria (email) in order to find duplicates
found_dupes <- sf_find_duplicates(search_criteria =
                                list(Email="bond_john@grandhotels.com"),
                                object_name = "Lead")

# now look for duplicates on email using the Contact object's rules
found_dupes <- sf_find_duplicates(search_criteria =
                                list(Email="bond_john@grandhotels.com"),
                                object_name = "Contact")

## End(Not run)
```

`sf_find_duplicates_by_id`*Find Duplicate Records By Id*

Description**[Experimental]**

Performs rule-based searches for duplicate records.

Usage

```
sf_find_duplicates_by_id(
  sf_id,
  include_record_details = FALSE,
  guess_types = TRUE,
  verbose = FALSE
)
```

Arguments

<code>sf_id</code>	character; a Salesforce generated Id that uniquely identifies a record.
<code>include_record_details</code>	logical; get fields and values for records detected as duplicates by setting this property to TRUE. Get only record IDs for records detected as duplicates by setting this property to FALSE.

guess_types	logical; indicating whether or not to use col_guess() to try and cast the data returned in the recordset. If TRUE then col_guess() is used, if FALSE then all fields will be returned as character. This is helpful when col_guess() will mangle field values in Salesforce that you'd like to preserve during translation into a tbl_df, like numeric looking values that must be preserved as strings ("48.0").
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

tbl_df of records found to be duplicates by the match rules

Note

You must have active duplicate rules for the supplied object before running this function. This function uses the duplicate rules for the object that has the same type as the input record IDs. For example, if the record Id represents an Account, this function uses the duplicate rules associated with the Account object.

Examples

```
## Not run:
# use the duplicate rules associated with the object that this record
# belongs to in order to find duplicates
found_dupes <- sf_find_duplicates_by_id(sf_id = "00Q6A00000aABCnZZZ")

## End(Not run)
```

sf_get_all_jobs_bulk *Get All Bulk API Jobs*

Description

This function retrieves details about all Bulk jobs in the org.

Usage

```
sf_get_all_jobs_bulk(
  parameterized_search_list = list(isPkChunkingEnabled = NULL, jobType = NULL),
  next_records_url = NULL,
  api_type = c("Bulk 2.0"),
  verbose = FALSE
)
```

Arguments

parameterized_search_list	list; a list of parameters to be added as part of the URL query string (i.e. after a question mark ("?")) so that the result only returns information about jobs that meet that specific criteria. For more information, read the note below and/or the Salesforce documentation here .
next_records_url	character (leave as NULL); a string used internally by the function to paginate through to more records until complete
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A tbl_df of parameters defining the details of all bulk jobs

Note

parameterized_search_list elements that can be set to filter the results:

- isPkChunkingEnabledA logical either TRUE or FALSE. TRUE only returns information about jobs where PK Chunking has been enabled.
- jobTypeA character string to return jobs matching the specified type. Must be one of: "BigObjectIngest", "Classic", "V2QIngest". Classic corresponds to Bulk 1.0 API jobs and V2Ingest corresponds to the Bulk 2.0 API jobs.

References

https://developer.salesforce.com/docs/atlas.en-us.api_asynch.meta/api_asynch/get_all_jobs.htm

Examples

```
## Not run:
job_info <- sf_create_job_bulk('insert', 'Account')
all_jobs_info <- sf_get_all_jobs_bulk()
# just the Bulk API 1.0 jobs
all_jobs_info <- sf_get_all_jobs_bulk(parameterized_search_list=list(jobType='Classic'))

## End(Not run)
```

 sf_get_all_query_jobs_bulk

Get All Bulk API Query Jobs

Description

This function retrieves details about all Bulk query jobs in the org.

Usage

```
sf_get_all_query_jobs_bulk(
  parameterized_search_list = list(isPkChunkingEnabled = NULL, jobType = NULL,
    concurrencyMode = NULL),
  next_records_url = NULL,
  api_type = c("Bulk 2.0"),
  verbose = FALSE
)
```

Arguments

parameterized_search_list	list; a list of parameters to be added as part of the URL query string (i.e. after a question mark ("?")) so that the result only returns information about jobs that meet that specific criteria. For more information, read the note below and/or the Salesforce documentation here .
next_records_url	character (leave as NULL); a string used internally by the function to paginate through to more records until complete
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A tbl_df of parameters defining the details of all bulk jobs

Note

parameterized_search_list elements that can be set to filter the results:

- isPkChunkingEnabled A logical either TRUE or FALSE. TRUE only returns information about jobs where PK Chunking has been enabled.

- `jobTypeA` character string to return jobs matching the specified type. Must be one of: "BigObjectIngest", "Classic", "V2Query". Classic corresponds to Bulk 1.0 API jobs and V2Query corresponds to the Bulk 2.0 API jobs.
- `concurrencyModeA` character string to return jobs matching the specified concurrency mode. Must be one of: "serial" or "parallel", but only "serial" is currently supported.

References

https://developer.salesforce.com/docs/atlas.en-us.api_asynch.meta/api_asynch/get_all_jobs.htm

Examples

```
## Not run:
job_info <- sf_create_job_bulk('insert', 'Account')
all_query_jobs_info <- sf_get_all_query_jobs_bulk()
# just the Bulk API 2.0 query jobs
all_query_jobs_info <- sf_get_all_query_jobs_bulk(parameterized_search_list=list(jobType='V2Query'))
# just the Bulk API 1.0 query jobs
all_query_jobs_info <- sf_get_all_query_jobs_bulk(parameterized_search_list=list(jobType='Classic'))

## End(Not run)
```

`sf_get_dashboard_data` *Get dashboard data in a tabular format*

Description

[Experimental]

Usage

```
sf_get_dashboard_data(
  dashboard_id,
  running_user = NULL,
  dashboard_filters = c(character(0))
)
```

Arguments

<code>dashboard_id</code>	character; the Salesforce Id assigned to a created dashboard. It will start with "01Z".
<code>running_user</code>	character; the Salesforce Id that should be assigned as the runner of the job. This should be from a User record (i.e. the Id will start with "005"). Note that this will throw an error if the User is not allowed to change the running User, or if the selected running User is invalid.

dashboard_filters

character; Dashboard results are always unfiltered, unless you have specified filter parameters in your request. Use this argument to include up to three optional filter Ids. You can obtain the list of defined filter Ids from the dashboard metadata using [sf_describe_dashboard](#).

Value

tbl_df

sf_get_dashboard_results

Get the results of an existing dashboard

Description

[Experimental]

This function allows for pulling specific data from a dashboard. There is a convenience function ([sf_get_dashboard_data](#)) to get the dashboard data in a tabular format returned as a tbl_df.

Usage

```
sf_get_dashboard_results(
  dashboard_id,
  running_user = NULL,
  dashboard_filters = c(character(0))
)
```

Arguments

dashboard_id character; the Salesforce Id assigned to a created dashboard. It will start with "01Z".

running_user character; the Salesforce Id that should be assigned as the runner of the job. This should be from a User record (i.e. the Id will start with "005"). Note that this will throw an error if the User is not allowed to change the running User, or if the selected running User is invalid.

dashboard_filters

character; Dashboard results are always unfiltered, unless you have specified filter parameters in your request. Use this argument to include up to three optional filter Ids. You can obtain the list of defined filter Ids from the dashboard metadata using [sf_describe_dashboard](#).

Value

tbl_df

 sf_get_dashboard_status

Get the status of a dashboard

Description

[Experimental]

Usage

```
sf_get_dashboard_status(
  dashboard_id,
  running_user = NULL,
  dashboard_filters = c(character(0))
)
```

Arguments

dashboard_id character; the Salesforce Id assigned to a created dashboard. It will start with "01Z".

running_user character; the Salesforce Id that should be assigned as the runner of the job. This should be from a User record (i.e. the Id will start with "005"). Note that this will throw an error if the User is not allowed to change the running User, or if the selected running User is invalid.

dashboard_filters character; Dashboard results are always unfiltered, unless you have specified filter parameters in your request. Use this argument to include up to three optional filter Ids. You can obtain the list of defined filter Ids from the dashboard metadata using [sf_describe_dashboard](#).

Value

list

sf_get_deleted

Get Deleted Records from a Timeframe

Description

[Stable]

Retrieves the list of individual records that have been deleted within the given timespan for the specified object.

Usage

```
sf_get_deleted(object_name, start, end, verbose = FALSE)
```

Arguments

object_name	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
start	date or datetime; starting datetime of the timespan for which to retrieve the data.
end	date or datetime; ending datetime of the timespan for which to retrieve the data.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Note

This API ignores the seconds portion of the supplied datetime values.

Examples

```
## Not run:  
# get all deleted Contact records from midnight until now  
deleted_recs <- sf_get_deleted("Contact", Sys.Date(), Sys.time())  
  
## End(Not run)
```

sf_get_job_bulk

Get Bulk API Job

Description

This function retrieves details about a Job in the Salesforce Bulk API

Usage

```
sf_get_job_bulk(  
  job_id,  
  api_type = c("Bulk 1.0", "Bulk 2.0"),  
  query_operation = FALSE,  
  verbose = FALSE  
)
```

Arguments

job_id	character; the Salesforce Id assigned to a submitted job as returned by sf_create_job_bulk . It will start with "750".
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
query_operation	logical; an indicator of whether the job is a query job, which is needed when using the Bulk 2.0 API because the URI endpoints are different for the "ingest" vs. the "query" jobs.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A tbl_df of parameters defining the details of the specified job id

References

https://developer.salesforce.com/docs/atlas.en-us.api_asynch.meta/api_asynch

Examples

```
## Not run:
job_info <- sf_create_job_bulk('insert', 'Account')
refreshed_job_info <- sf_get_job_bulk(job_info$id)
sf_abort_job_bulk(refreshed_job_info$id)

## End(Not run)
```

sf_get_job_records_bulk

Returning the Details of a Bulk API Job

Description

This function returns detailed (row-level) information on a job which has already been submitted completed (successfully or not).

Usage

```
sf_get_job_records_bulk(
  job_id,
  api_type = c("Bulk 1.0", "Bulk 2.0"),
  record_types = c("successfulResults", "failedResults", "unprocessedRecords"),
  combine_record_types = TRUE,
  verbose = FALSE
)
```

Arguments

job_id	character; the Salesforce Id assigned to a submitted job as returned by sf_create_job_bulk . It will start with "750".
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
record_types	character; one or more types of records to retrieve from the results of running the specified job
combine_record_types	logical; indicating for Bulk 2.0 jobs whether the successfulResults, failedResults, and unprocessedRecords should be stacked together by binding the rows
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A `tbl_df` or list of `tbl_df`, formatted by Salesforce, with information containing the success or failure or certain rows in a submitted job

Note

With Bulk 2.0 the order of records in the response is not guaranteed to match the ordering of records in the original job data.

References

https://developer.salesforce.com/docs/atlas.en-us.api_asynch.meta/api_asynch

Examples

```
## Not run:
job_info <- sf_create_job_bulk('insert', 'Account')
input_data <- tibble(Name=c("Test Account 1", "Test Account 2"))
batches_result <- sf_create_batches_bulk(job_info$id, input_data)
# pause a few seconds for operation to finish. Wait longer if job is not complete.
Sys.sleep(3)
# check status using - sf_get_job_bulk(job_info$id)
job_record_details <- sf_get_job_records_bulk(job_id=job_info$id)

## End(Not run)
```

```
sf_get_report_instance_results
    Get report instance results
```

Description

[Experimental]

Retrieves results for an instance of a report run asynchronously with or without filters. Depending on your asynchronous report run request, data can be at the summary level or include details.

Usage

```
sf_get_report_instance_results(
    report_id,
    report_instance_id,
    labels = TRUE,
    guess_types = TRUE,
    bind_using_character_cols = deprecated(),
    fact_map_key = "T!T",
    verbose = FALSE
)
```

Arguments

report_id	character; the Salesforce Id assigned to a created analytics report. It will start with "000".
report_instance_id	character; the Salesforce Id assigned to a created analytics report instance (an asynchronous run). It will start with "0LG".
labels	logical; an indicator of whether the returned data should be the label (i.e. formatted value) or the actual value. By default, the labels are returned because these are what appear in the Salesforce dashboard and more closely align with the column names. For example, "Account.Name" label may be "Account B" and the value 0016A00000035mJEQAY. The former (label) more accurately reflects the "Account.Name".
guess_types	logical; indicating whether or not to use col_guess() to try and cast the data returned in the recordset. If TRUE then col_guess() is used, if FALSE then all fields will be returned as character. This is helpful when col_guess() will mangle field values in Salesforce that you'd like to preserve during translation into a tbl_df, like numeric looking values that must be preserved as strings ("48.0").
bind_using_character_cols	logical; an indicator of whether to cast the data to all character columns to ensure that bind_rows does not fail because two paginated recordsets have differing datatypes for the same column. Set this to TRUE rarely, typically only when having this set to FALSE returns an error or you want all columns in the data to be character.

fact_map_key	character; string providing an index into each section of a fact map, from which you can access summary and detailed data. The pattern for the fact map keys varies by report format so it is important to know what the reportFormat property of the target report is. See the note below for more details.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

tbl_df; the detail report data. More specifically, the detailed data from the "T!T" entry in the fact map.

Salesforce Documentation

- [Documentation](#)
- [Example](#)
- [Factmap Documentation](#)

Note

Below are the fact map key patterns for three report types:

TABULAR T!T: The grand total of a report. Both record data values and the grand total are represented by this key.

SUMMARY <First level row grouping_second level row grouping_third level row grouping>!T: T refers to the row grand total.

MATRIX <First level row grouping_second level row grouping>!<First level column grouping_second level column grouping>.

Each item in a row or column grouping is numbered starting with 0. Here are some examples of fact map keys:

0!T The first item in the first-level grouping.

1!T The second item in the first-level grouping.

0_0!T The first item in the first-level grouping and the first item in the second-level grouping.

0_1!T The first item in the first-level grouping and the second item in the second-level grouping.

See Also

Other Report Instance functions: [sf_delete_report_instance\(\)](#), [sf_list_report_instances\(\)](#)

Examples

```
## Not run:
# execute a report asynchronously in your Org
all_reports <- sf_query("SELECT Id, Name FROM Report")
this_report_id <- all_reports$Id[1]
results <- sf_execute_report(this_report_id, async=TRUE)

# check if that report has succeeded, ...
instance_list <- sf_list_report_instances(this_report_id)
instance_status <- instance_list[[which(instance_list$id == results$id), "status"]]

# ... if so, then grab the results
if(instance_status == "Success"){
  report_data <- sf_get_report_instance_results(report_id = this_report_id,
                                               report_instance_id = results$id)
}

## End(Not run)
```

sf_get_updated

Get Updated Records from a Timeframe

Description**[Stable]**

Retrieves the list of individual records that have been inserted or updated within the given timespan in the specified object.

Usage

```
sf_get_updated(object_name, start, end, verbose = FALSE)
```

Arguments

object_name	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
start	date or datetime; starting datetime of the timespan for which to retrieve the data.
end	date or datetime; ending datetime of the timespan for which to retrieve the data.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Note

This API ignores the seconds portion of the supplied datetime values.

Examples

```
## Not run:  
# get all updated Contact records from midnight until now  
updated_recs <- sf_get_updated("Contact", Sys.Date(), Sys.time())  
  
## End(Not run)
```

sf_job_batches_bulk *Checking the Status of a Batch in a Bulk API Job*

Description

This function checks on and returns status information on an existing batch which has already been submitted to Bulk API Job

Usage

```
sf_job_batches_bulk(job_id, api_type = c("Bulk 1.0"), verbose = FALSE)
```

Arguments

job_id	character; the Salesforce Id assigned to a submitted job as returned by sf_create_job_bulk . It will start with "750".
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A tbl_df of parameters defining the batch identified by the batch_id

Note

This is a legacy function used only with Bulk 1.0.

References

https://developer.salesforce.com/docs/atlas.en-us.api_asynch.meta/api_asynch

Examples

```
## Not run:
job_info <- sf_create_job_bulk(operation = "query", object = "Account")
soql <- "SELECT Id, Name FROM Account LIMIT 10"
batch_query_info <- sf_submit_query_bulk(job_id = job_info$id, soql = soql)
submitted_batches <- sf_job_batches_bulk(job_id=batch_query_info$jobId)
job_close_ind <- sf_close_job_bulk(job_info$id)
sf_get_job_bulk(job_info$id)

## End(Not run)
```

sf_list_api_limits *List the Limits for an API*

Description

[Stable]

Lists information about limits in your org.

Usage

```
sf_list_api_limits()
```

Value

list

Note

This resource is available in REST API version 29.0 and later for API users with the View Setup and Configuration permission. The resource returns these limits:

- Daily API calls
- Daily asynchronous Apex method executions (batch Apex, future methods, queueable Apex, and scheduled Apex)
- Daily Bulk API calls
- Daily Streaming API events (API version 36.0 and earlier)
- Daily durable Streaming API events (API version 37.0 and later)
- Streaming API concurrent clients (API version 36.0 and earlier)
- Durable Streaming API concurrent clients (API version 37.0 and later)
- Daily generic streaming events (API version 36.0 and earlier)
- Daily durable generic streaming events (API version 37.0 and later)
- Daily number of mass emails that are sent to external email addresses by using Apex or APIs
- Daily number of single emails that are sent to external email addresses by using Apex or APIs

- Concurrent REST API requests for results of asynchronous report runs
- Concurrent synchronous report runs via REST API
- Hourly asynchronous report runs via REST API
- Hourly synchronous report runs via REST API
- Hourly dashboard refreshes via REST API
- Hourly REST API requests for dashboard results
- Hourly dashboard status requests via REST API
- Daily workflow emails
- Hourly workflow time triggers
- Hourly OData callouts
- Daily and active scratch org counts
- Data storage (MB)
- File storage (MB)

Examples

```
## Not run:
sf_list_api_limits()

## End(Not run)
```

sf_list_dashboards *List dashboards*

Description

[Experimental]

Returns a list of recently used dashboards

Usage

```
sf_list_dashboards(as_tbl = TRUE, verbose = FALSE)
```

Arguments

as_tbl	logical; an indicator of whether to convert the parsed JSON into a tbl_df.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

list or tbl_df depending on the value of argument as_tbl

See Also

- [Salesforce Documentation](#)
- [Salesforce Example](#)

sf_list_metadata	<i>List All Objects of a Certain Metadata Type in Salesforce</i>
------------------	--

Description**[Experimental]**

This function takes a query of metadata types and returns a summary of all objects in salesforce of the requested types

Usage

```
sf_list_metadata(queries, verbose = FALSE)
```

Arguments

queries	a list of lists with each element consisting of 2 components: 1) the metadata type being requested and 2) the folder associated with the type that required for types that use folders, such as Dashboard, Document, EmailTemplate, or Report.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A tbl_dfs containing the queried metadata types

Note

Only 3 queries can be specified at one time, so the list length must not exceed 3.

References

https://developer.salesforce.com/docs/atlas.en-us.api_meta.meta/api_meta

Examples

```
## Not run:  
# pull back a list of all Custom Objects and Email Templates  
my_queries <- list(list(type='CustomObject'),  
                  list(folder='unfiled$public',  
                        type='EmailTemplate'))  
metadata_info <- sf_list_metadata(queries=my_queries)  
  
## End(Not run)
```

sf_list_objects	<i>List Organization Objects and their Metadata</i>
-----------------	---

Description**[Stable]**

Lists the available objects and their metadata for your organization's data.

Usage

```
sf_list_objects()
```

Value

list

Examples

```
## Not run:  
sf_list_objects()  
  
## End(Not run)
```

sf_list_reports	<i>List reports</i>
-----------------	---------------------

Description**[Experimental]**

Displays a list of full list of reports based on the Report object. If recent is up to 200 tabular, matrix, or summary reports that you recently viewed. To get additional details on reports by format, name, and other fields, use a SOQL query on the Report object.

Usage

```
sf_list_reports(recent = FALSE, as_tbl = TRUE, verbose = FALSE)
```

Arguments

recent	logical; an indicator of whether to return the 200 most recently viewed reports or to invoke a query on the Report object to return all reports in the Org. By default, this argument is set to FALSE meaning that all of the reports, not just the most recently viewed reports are returned. Note that the default behavior of the reports list endpoint in the Reports and Dashboards REST API is only the most recently viewed up to 200 reports.
--------	---

as_tbl	logical; an indicator of whether to convert the parsed JSON into a tbl_df.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

tbl_df by default, or a list depending on the value of argument as_tbl

Salesforce Documentation

- [Documentation](#)
- [Example](#)

Note

This function will only return up to 200 of recently viewed reports when the recent argument is set to TRUE. For a complete details you must use [sf_query](#) on the report object.

See Also

Other Report functions: [sf_copy_report\(\)](#), [sf_create_report\(\)](#), [sf_delete_report\(\)](#), [sf_describe_report_type\(\)](#), [sf_describe_report\(\)](#), [sf_execute_report\(\)](#), [sf_list_report_fields\(\)](#), [sf_list_report_filter_operators\(\)](#), [sf_list_report_types\(\)](#), [sf_query_report\(\)](#), [sf_run_report\(\)](#), [sf_update_report\(\)](#)

Examples

```
## Not run:
# to return all possible reports, which is queried from the Report object
reports <- sf_list_reports()

# return the results as a list
reports_as_list <- sf_list_reports(as_tbl=FALSE)

# return up to 200 recently viewed reports
all_reports <- sf_list_reports(recent=TRUE)

## End(Not run)
```

sf_list_report_fields *Get a list of report fields*

Description**[Experimental]**

The Report Fields resource returns report fields available for specified reports. Use the resource to determine the best fields for use in dashboard filters by seeing which fields different source reports have in common. Available in API version 40.0 and later.

Usage

```
sf_list_report_fields(
  report_id,
  intersect_with = c(character(0)),
  verbose = FALSE
)
```

Arguments

report_id character; the Salesforce Id assigned to a created analytics report. It will start with "000".

intersect_with character a vector of unique report IDs. This is helpful in determining the best fields for use in dashboard filters by seeing which fields different source reports have in common. If this argument is left empty, then the function returns a list of all possible report fields. Otherwise, returns a list of fields that specified reports share.

verbose logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

list representing the 4 different field report properties:

displayGroups Fields available when adding a filter.

equivalentFields Fields available for each specified report. Each object in this array is a list of common fields categorized by report type.

equivalentFieldIndices Map of each field's API name to the index of the field in the equivalentFields array.

mergedGroups Merged fields.

Salesforce Documentation

- [Documentation](#)

See Also

Other Report functions: [sf_copy_report\(\)](#), [sf_create_report\(\)](#), [sf_delete_report\(\)](#), [sf_describe_report_type\(\)](#), [sf_describe_report\(\)](#), [sf_execute_report\(\)](#), [sf_list_report_filter_operators\(\)](#), [sf_list_report_types\(\)](#), [sf_list_reports\(\)](#), [sf_query_report\(\)](#), [sf_run_report\(\)](#), [sf_update_report\(\)](#)

Examples

```
## Not run:
# first, grab all possible reports in your Org
all_reports <- sf_query("SELECT Id, Name FROM Report")
```

```
# second, get the id of the report to check fields on
this_report_id <- all_reports$Id[1]

# third, pull that report and intersect its fields with up to three other reports
fields <- sf_list_report_fields(this_report_id, intersect_with=head(all_reports[["Id"]],3))

## End(Not run)
```

```
sf_list_report_filter_operators
```

```
List report filter operators
```

Description

[Experimental]

Use the Filter Operators API to get information about which filter operators are available for reports and dashboards. The Filter Operators API is available in API version 40.0 and later.

Usage

```
sf_list_report_filter_operators(as_tbl = TRUE, verbose = FALSE)
```

Arguments

as_tbl	logical; an indicator of whether to convert the parsed JSON into a tbl_df.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

tbl_df by default, or a list depending on the value of argument as_tbl

Salesforce Documentation

- [Documentation](#)
- [Example](#)

See Also

Other Report functions: [sf_copy_report\(\)](#), [sf_create_report\(\)](#), [sf_delete_report\(\)](#), [sf_describe_report_type\(\)](#), [sf_describe_report\(\)](#), [sf_execute_report\(\)](#), [sf_list_report_fields\(\)](#), [sf_list_report_types\(\)](#), [sf_list_reports\(\)](#), [sf_query_report\(\)](#), [sf_run_report\(\)](#), [sf_update_report\(\)](#)

Examples

```
## Not run:
report_filters <- sf_list_report_filter_operators()
unique_supported_fields <- report_filters %>% distinct(supported_field_type)

# operators to filter a picklist field
picklist_field_operators <- report_filters %>% filter(supported_field_type == "picklist")

## End(Not run)
```

sf_list_report_instances

List report instances

Description

[Experimental]

Returns a list of instances for a report that you requested to be run asynchronously. Each item in the list is treated as a separate instance of the report run with metadata in that snapshot of time.

Usage

```
sf_list_report_instances(report_id, as_tbl = TRUE, verbose = FALSE)
```

Arguments

report_id	character; the Salesforce Id assigned to a created analytics report. It will start with "000".
as_tbl	logical; an indicator of whether to convert the parsed JSON into a tbl_df.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

tbl_df by default, or a list depending on the value of argument as_tbl

Salesforce Documentation

- [Documentation](#)
- [Example](#)

See Also

Other Report Instance functions: [sf_delete_report_instance\(\)](#), [sf_get_report_instance_results\(\)](#)

Examples

```
## Not run:
# first, get the Id of a report in your Org
all_reports <- sf_query("SELECT Id, Name FROM Report")
this_report_id <- all_reports$Id[1]

# second, execute an async report
results <- sf_execute_report(this_report_id, async=TRUE)

# third, pull a list of async requests ("instances") usually meant for checking
# if a recently requested report has succeeded and the results can be retrieved
instance_list <- sf_list_report_instances(this_report_id)
instance_status <- instance_list[[which(instance_list$id == results$id), "status"]]

## End(Not run)
```

sf_list_report_types *List report types*

Description**[Experimental]**

Return a list of report types.

Usage

```
sf_list_report_types(as_tbl = TRUE, verbose = FALSE)
```

Arguments

as_tbl	logical; an indicator of whether to convert the parsed JSON into a tbl_df.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

tbl_df by default, or a list depending on the value of argument as_tbl

Salesforce Documentation

- [Documentation](#)

See Also

Other Report functions: [sf_copy_report\(\)](#), [sf_create_report\(\)](#), [sf_delete_report\(\)](#), [sf_describe_report_type\(\)](#), [sf_describe_report\(\)](#), [sf_execute_report\(\)](#), [sf_list_report_fields\(\)](#), [sf_list_report_filter_operators\(\)](#), [sf_list_reports\(\)](#), [sf_query_report\(\)](#), [sf_run_report\(\)](#), [sf_update_report\(\)](#)

Examples

```
## Not run:
report_types <- sf_list_report_types()
unique_report_types <- report_types %>% select(reportTypes.type)

# return the results as a list
reports_as_list <- sf_list_report_types(as_tbl=FALSE)

## End(Not run)
```

sf_list_resources *List the Resources for an API*

Description

[Stable]

Lists available resources for the specified API version, including resource name and URI.

Usage

```
sf_list_resources()
```

Value

list

Examples

```
## Not run:
sf_list_resources()

## End(Not run)
```

sf_list_rest_api_versions *List REST API Versions*

Description

[Stable]

Lists summary information about each Salesforce version currently available, including the version, label, and a link to each version's root

Usage

```
sf_list_rest_api_versions()
```

Value

list

Examples

```
## Not run:
sf_list_rest_api_versions()

## End(Not run)
```

sf_merge

*Merge Records***Description****[Experimental]**

This function combines records of the same object type into one of the records, known as the master record. The other records, known as the victim records, will be deleted. If a victim record has related records the master record the new parent of the related records.

Usage

```
sf_merge(
  master_id,
  victim_ids,
  object_name,
  master_fields = character(0),
  api_type = c("SOAP"),
  control = list(...),
  ...,
  verbose = FALSE
)
```

Arguments

master_id	character; a Salesforce generated Id that identifies the master record, which is the record to which the victim records will be merged into
victim_ids	character; one or two Salesforce Ids of records to be merged into the master record. Up to three records can be merged in a single request, including the master record. This limit is the same as the limit enforced by the Salesforce user interface. To merge more than 3 records, successively merge records by running sf_merge repeatedly.
object_name	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
master_fields	named vector; a vector of field names and values to supersede the master record values. Otherwise, the field values on the master record will prevail.

api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
control	list; a list of parameters for controlling the behavior of the API call being used. For more information of what parameters are available look at the documentation for sf_control .
...	arguments passed to sf_control
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

tbl_df of records with success indicator

Examples

```
## Not run:
n <- 3
new_contacts <- tibble(FirstName = rep("Test", n),
                      LastName = paste0("Contact", 1:n),
                      Description = paste0("Description", 1:n))
new_recs1 <- sf_create(new_contacts, object_name = "Contact")

# merge the second and third into the first record, but set the
# description field equal to the description of the second. All other fields
# will from the first record or, if blank, from the other records
merge_res <- sf_merge(master_id = new_recs1$id[1],
                     victim_ids = new_recs1$id[2:3],
                     object_name = "Contact",
                     master_fields = tibble("Description" = new_contacts$Description[2]))
# check the second and third records now have the same Master Record Id as the first
merge_check <- sf_query(sprintf("SELECT Id, MasterRecordId, Description
                                FROM Contact WHERE Id IN ('%s')",
                                paste0(new_recs1$id, collapse="','")),
                       queryall = TRUE)

## End(Not run)
```

sf_query

Perform SOQL Query

Description

[Stable]

Executes a query against the specified object and returns data that matches the specified criteria.

Usage

```

sf_query(
  soql,
  object_name = NULL,
  queryall = FALSE,
  guess_types = TRUE,
  api_type = c("REST", "SOAP", "Bulk 1.0", "Bulk 2.0"),
  control = list(...),
  ...,
  page_size = deprecated(),
  next_records_url = NULL,
  bind_using_character_cols = deprecated(),
  object_name_append = FALSE,
  object_name_as_col = FALSE,
  verbose = FALSE
)

```

Arguments

soql	character; a string defining a SOQL query (e.g. "SELECT Id, Name FROM Account").
object_name	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
queryall	logical; indicating if the query recordset should include records that have been deleted because of a merge or delete. Setting this argument to TRUE will also return information about archived Task and Event records. It is available in API versions 29.0 and later.
guess_types	logical; indicating whether or not to use <code>col_guess()</code> to try and cast the data returned in the recordset. If TRUE then <code>col_guess()</code> is used, if FALSE then all fields will be returned as character. This is helpful when <code>col_guess()</code> will mangle field values in Salesforce that you'd like to preserve during translation into a <code>tbl_df</code> , like numeric looking values that must be preserved as strings ("48.0").
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
control	list; a list of parameters for controlling the behavior of the API call being used. For more information of what parameters are available look at the documentation for sf_control .
...	arguments passed to sf_control or further downstream to sf_query_bulk .
page_size	numeric; a number between 200 and 2000 indicating the number of records per page that are returned. Speed benchmarks should be done to better understand the speed implications of choosing high or low values of this argument.
next_records_url	character (leave as NULL); a string used internally by the function to paginate through to more records until complete

<code>bind_using_character_cols</code>	logical; an indicator of whether to cast the data to all character columns to ensure that <code>bind_rows</code> does not fail because two paginated recordsets have differing datatypes for the same column. Set this to TRUE rarely, typically only when having this set to FALSE returns an error or you want all columns in the data to be character.
<code>object_name_append</code>	logical; whether to include the object type (e.g. Account or Contact) as part of the column names (e.g. Account.Name).
<code>object_name_as_col</code>	logical; whether to include the object type (e.g. Account or Contact) as a new column.
<code>verbose</code>	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

`tbl_df` of records

Note

Bulk API query doesn't support the following SOQL:

- COUNT
- ROLLUP
- SUM
- GROUP BY CUBE
- OFFSET
- Nested SOQL queries
- Relationship fields

Additionally, Bulk API can't access or query compound address or compound geolocation fields.

References

https://developer.salesforce.com/docs/atlas.en-us.api_asynch.meta/api_asynch

Examples

```
## Not run:
sf_query("SELECT Id, Account.Name, Email FROM Contact LIMIT 10")

## End(Not run)
```

sf_query_bulk_v1 *Run Bulk 1.0 query*

Description

This function is a convenience wrapper for submitting and retrieving query API jobs from the Bulk 1.0 API.

Usage

```
sf_query_bulk_v1(
  soql,
  object_name = NULL,
  queryall = FALSE,
  guess_types = TRUE,
  bind_using_character_cols = deprecated(),
  interval_seconds = 3,
  max_attempts = 200,
  control = list(...),
  ...,
  api_type = "Bulk 1.0",
  verbose = FALSE
)
```

Arguments

soql	character; a string defining a SOQL query (e.g. "SELECT Id, Name FROM Account").
object_name	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
queryall	logical; indicating if the query recordset should include records that have been deleted because of a merge or delete. Setting this argument to TRUE will also return information about archived Task and Event records. It is available in API versions 29.0 and later.
guess_types	logical; indicating whether or not to use col_guess() to try and cast the data returned in the recordset. If TRUE then col_guess() is used, if FALSE then all fields will be returned as character. This is helpful when col_guess() will mangle field values in Salesforce that you'd like to preserve during translation into a tbl_df, like numeric looking values that must be preserved as strings ("48.0").
bind_using_character_cols	logical; an indicator of whether to cast the data to all character columns to ensure that bind_rows does not fail because two paginated recordsets have differing datatypes for the same column. Set this to TRUE rarely, typically only when having this set to FALSE returns an error or you want all columns in the data to be character.

interval_seconds	integer; defines the seconds between attempts to check for job completion.
max_attempts	integer; defines then max number attempts to check for job completion before stopping.
control	list; a list of parameters for controlling the behavior of the API call being used. For more information of what parameters are available look at the documentation for sf_control .
...	other arguments passed on to sf_control or sf_create_job_bulk to specify the content_type, concurrency_mode, and/or column_delimiter.
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A tbl_df of the recordset returned by the query

References

[Bulk 1.0 documentation](#)

Examples

```
## Not run:
# select all Ids from Account object (up to 1000)
ids <- sf_query_bulk_v1(soql = 'SELECT Id FROM Account LIMIT 1000',
                      object_name = 'Account')
# alternatively you can specify as
ids <- sf_query(soql = 'SELECT Id FROM Account LIMIT 1000',
               object_name = 'Account',
               api_type="Bulk 1.0")

## End(Not run)
```

sf_query_bulk_v2

Run Bulk 2.0 query

Description

This function is a convenience wrapper for submitting and retrieving query API jobs from the Bulk 2.0 API.

Usage

```
sf_query_bulk_v2(
  soql,
  object_name = NULL,
  queryall = FALSE,
  guess_types = TRUE,
  bind_using_character_cols = deprecated(),
  interval_seconds = 3,
  max_attempts = 200,
  control = list(...),
  ...,
  api_type = "Bulk 2.0",
  verbose = FALSE
)
```

Arguments

soql	character; a string defining a SOQL query (e.g. "SELECT Id, Name FROM Account").
object_name	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
queryall	logical; indicating if the query recordset should include records that have been deleted because of a merge or delete. Setting this argument to TRUE will also return information about archived Task and Event records. It is available in API versions 29.0 and later.
guess_types	logical; indicating whether or not to use <code>col_guess()</code> to try and cast the data returned in the recordset. If TRUE then <code>col_guess()</code> is used, if FALSE then all fields will be returned as character. This is helpful when <code>col_guess()</code> will mangle field values in Salesforce that you'd like to preserve during translation into a <code>tbl_df</code> , like numeric looking values that must be preserved as strings ("48.0").
bind_using_character_cols	logical; an indicator of whether to cast the data to all character columns to ensure that <code>bind_rows</code> does not fail because two paginated recordsets have differing datatypes for the same column. Set this to TRUE rarely, typically only when having this set to FALSE returns an error or you want all columns in the data to be character.
interval_seconds	integer; defines the seconds between attempts to check for job completion.
max_attempts	integer; defines then max number attempts to check for job completion before stopping.
control	list; a list of parameters for controlling the behavior of the API call being used. For more information of what parameters are available look at the documentation for <code>sf_control</code> .
...	other arguments passed on to <code>sf_control</code> or <code>sf_create_job_bulk</code> to specify the <code>content_type</code> , <code>concurrency_mode</code> , and/or <code>column_delimiter</code> .

api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A tbl_df of the recordset returned by the query

References

[Bulk 2.0 documentation](#)

Examples

```
## Not run:
# select all Ids from Account object (up to 1000)
ids <- sf_query_bulk_v2(soql = 'SELECT Id FROM Account LIMIT 1000',
                      object_name = 'Account')
# alternatively you can specify as
ids <- sf_query(soql = 'SELECT Id FROM Account LIMIT 1000',
               object_name = 'Account',
               api_type="Bulk 2.0")

## End(Not run)
```

sf_query_report

Get Report Data without Saving Changes to or Creating a Report

Description

[Experimental]

Run a report without creating a new report or changing the existing one by making a POST request to the query resource. This allows you to get report data without filling up your Org with unnecessary reports.

Usage

```
sf_query_report(report_id, report_metadata = NULL, verbose = FALSE)
```

Arguments

report_id	character; the Salesforce Id assigned to a created analytics report. It will start with "000".
report_metadata	list; a list with one element named "reportMetadata" having additional list elements underneath. All possible elements of reportMetadata are documented HERE , but you will most commonly only need to specify the following 3 elements to filter or query the results of an existing report: <ul style="list-style-type: none"> reportFormat A character specifying the format of the report with possible values: "TABULAR", "SUMMARY", "MATRIX", or "MULTI_BLOCK". reportBooleanFilter A character denoting how the individual filters specified in reportFilters should be combined. For example, "(1OR4)AND2AND3". reportFilters A list of reportFilter specifications. Each must be a list with 3 elements: 1) column, 2) operator, and 3) value. You can find out how certain field types can be filtered by reviewing the results of sf_list_report_filter_operators.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Details

Note that you can query a report's data simply by providing its Id. However, the data will only be the detailed data from the tabular format with no totals or other metadata. If you would like more control, for example, filtering the results or grouping them in specific ways, then you will need to specify a list to the report_metadata argument. The report_metadata argument requires specific knowledge on the structure the reportMetadata property of a report. For more information, please review the Salesforce documentation in detail [HERE](#). Additional references are provided in the "See Also" section.

Value

tbl_df

Salesforce Documentation

- [Documentation](#)
- [Example](#)

See Also

Other Report functions: [sf_copy_report\(\)](#), [sf_create_report\(\)](#), [sf_delete_report\(\)](#), [sf_describe_report_type\(\)](#), [sf_describe_report\(\)](#), [sf_execute_report\(\)](#), [sf_list_report_fields\(\)](#), [sf_list_report_filter_operators\(\)](#), [sf_list_report_types\(\)](#), [sf_list_reports\(\)](#), [sf_run_report\(\)](#), [sf_update_report\(\)](#)

sf_query_result_bulk *Retrieve the results of a completed bulk query*

Description

This function returns the recordset of a bulk query which has already been submitted to the Bulk 1.0 or Bulk 2.0 API and has completed.

Usage

```
sf_query_result_bulk(
  job_id,
  batch_id = NULL,
  result_id = NULL,
  guess_types = TRUE,
  bind_using_character_cols = deprecated(),
  batch_size = 50000,
  api_type = c("Bulk 1.0", "Bulk 2.0"),
  verbose = FALSE
)
```

Arguments

job_id	character; the Salesforce Id assigned to a submitted job as returned by sf_create_job_bulk . It will start with "750".
batch_id	character; the Salesforce Id assigned to a submitted batch as returned by sf_create_batches_bulk . It will start with "751".
result_id	character; a string returned from sf_batch_details_bulk when a query has completed and specifies how to get the recordset
guess_types	logical; indicating whether or not to use <code>col_guess()</code> to try and cast the data returned in the recordset. If TRUE then <code>col_guess()</code> is used, if FALSE then all fields will be returned as character. This is helpful when <code>col_guess()</code> will mangle field values in Salesforce that you'd like to preserve during translation into a <code>tbl_df</code> , like numeric looking values that must be preserved as strings ("48.0").
bind_using_character_cols	logical; an indicator of whether to cast the data to all character columns to ensure that <code>bind_rows</code> does not fail because two paginated recordsets have differing datatypes for the same column. Set this to TRUE rarely, typically only when having this set to FALSE returns an error or you want all columns in the data to be character.
batch_size	integer; the number of individual records to be included in a single batch uploaded to the Bulk APIs (1.0 or 2.0).
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.

`verbose` logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

`tbl_df`, formatted by Salesforce, containing query results

References

[Bulk 1.0 documentation](#) and [Bulk 2.0 documentation](#)

Examples

```
## Not run:
my_query <- "SELECT Id, Name FROM Account LIMIT 1000"
job_info <- sf_create_job_bulk(operation = 'query', object = 'Account')
query_info <- sf_submit_query_bulk(job_id = job_info$id, soql = my_query)
result <- sf_batch_details_bulk(job_id = query_info$jobId,
                              batch_id = query_info$id)
recordset <- sf_query_result_bulk(job_id = query_info$jobId,
                                 batch_id = query_info$id,
                                 result_id = result$result)

sf_close_job_bulk(job_info$id)

## End(Not run)
```

`sf_query_result_bulk_v1`

Retrieve the results of a Bulk 1.0 query

Description

This function returns the row-level recordset of a Bulk 1.0 query which has already been submitted to Bulk API Job and has Completed state

Usage

```
sf_query_result_bulk_v1(
  job_id,
  batch_id = NULL,
  result_id = NULL,
  guess_types = TRUE,
  bind_using_character_cols = deprecated(),
  api_type = c("Bulk 1.0"),
  verbose = FALSE
)
```

Arguments

job_id	character; the Salesforce Id assigned to a submitted job as returned by sf_create_job_bulk . It will start with "750".
batch_id	character; the Salesforce Id assigned to a submitted batch as returned by sf_create_batches_bulk . It will start with "751".
result_id	character; a string returned from sf_batch_details_bulk when a query has completed and specifies how to get the recordset
guess_types	logical; indicating whether or not to use <code>col_guess()</code> to try and cast the data returned in the recordset. If TRUE then <code>col_guess()</code> is used, if FALSE then all fields will be returned as character. This is helpful when <code>col_guess()</code> will mangle field values in Salesforce that you'd like to preserve during translation into a <code>tbl_df</code> , like numeric looking values that must be preserved as strings ("48.0").
bind_using_character_cols	logical; an indicator of whether to cast the data to all character columns to ensure that <code>bind_rows</code> does not fail because two paginated recordsets have differing datatypes for the same column. Set this to TRUE rarely, typically only when having this set to FALSE returns an error or you want all columns in the data to be character.
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

`tbl_df`, formatted by Salesforce, containing query results

References

[Bulk 1.0 documentation](#)

Examples

```
## Not run:
my_query <- "SELECT Id, Name FROM Account LIMIT 1000"
job_info <- sf_create_job_bulk(operation = 'query', object = 'Account', api_type="Bulk 1.0")
query_info <- sf_submit_query_bulk(job_id = job_info$id, soql = my_query, api_type="Bulk 1.0")
result <- sf_batch_details_bulk(job_id = query_info$jobId,
                              batch_id = query_info$id)
recordset <- sf_query_result_bulk(job_id = query_info$jobId,
                                 batch_id = query_info$id,
                                 result_id = result$result)
sf_close_job_bulk(job_info$id, api_type="Bulk 1.0")

## End(Not run)
```

 sf_query_result_bulk_v2

Retrieve the results of a Bulk 2.0 query

Description

This function returns the row-level recordset of a Bulk 2.0 query which has already been submitted as a Bulk 2.0 API job and has a JobComplete state.

Usage

```
sf_query_result_bulk_v2(
  job_id,
  guess_types = TRUE,
  bind_using_character_cols = deprecated(),
  batch_size = 50000,
  locator = NULL,
  api_type = c("Bulk 2.0"),
  verbose = FALSE
)
```

Arguments

job_id	character; the Salesforce Id assigned to a submitted job as returned by sf_create_job_bulk . It will start with "750".
guess_types	logical; indicating whether or not to use <code>col_guess()</code> to try and cast the data returned in the recordset. If TRUE then <code>col_guess()</code> is used, if FALSE then all fields will be returned as character. This is helpful when <code>col_guess()</code> will mangle field values in Salesforce that you'd like to preserve during translation into a <code>tbl_df</code> , like numeric looking values that must be preserved as strings ("48.0").
bind_using_character_cols	logical; an indicator of whether to cast the data to all character columns to ensure that <code>bind_rows</code> does not fail because two paginated recordsets have differing datatypes for the same column. Set this to TRUE rarely, typically only when having this set to FALSE returns an error or you want all columns in the data to be character.
batch_size	integer; the number of individual records to be included in a single batch uploaded to the Bulk APIs (1.0 or 2.0).
locator	character; a string returned found in the API response header of a prior iteration of sf_query_result_bulk_v2 that is included in the query string of the next call to paginate through all records returned by the query.
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.

`verbose` logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

`tbl_df`, formatted by Salesforce, containing query results

References

[Bulk 2.0 documentation](#)

Examples

```
## Not run:
my_query <- "SELECT Id, Name FROM Account LIMIT 1000"
job_info <- sf_create_job_bulk(operation = 'query', object = 'Account', api_type="Bulk 2.0")
query_info <- sf_submit_query_bulk(job_id = job_info$id, soql = my_query, api_type="Bulk 2.0")
result <- sf_batch_details_bulk(job_id = query_info$jobId,
                               batch_id = query_info$id)
recordset <- sf_query_result_bulk(job_id = query_info$jobId,
                                 batch_id = query_info$id,
                                 result_id = result$result)
sf_close_job_bulk(job_info$id, api_type="Bulk 2.0")

## End(Not run)
```

`sf_read_metadata` *Read Object or Field Metadata from Salesforce*

Description

[Experimental]

This function takes a request of named elements in Salesforce and returns their metadata

Usage

```
sf_read_metadata(metadata_type, object_names, verbose = FALSE)
```

Arguments

`metadata_type` character; string on what type of metadata to create.

`object_names` a character vector of names that we wish to read metadata for

`verbose` logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A list containing a response for each requested object

References

https://developer.salesforce.com/docs/atlas.en-us.api_meta.meta/api_meta

Examples

```
## Not run:
metadata_info <- sf_read_metadata(metadata_type='CustomObject',
                                object_names=c('Account'))

## End(Not run)
```

sf_refresh_dashboard *Refresh an existing dashboard*

Description

[Experimental]

Usage

```
sf_refresh_dashboard(dashboard_id, dashboard_filters = c(character(0)))
```

Arguments

dashboard_id character; the Salesforce Id assigned to a created dashboard. It will start with "01Z".

dashboard_filters character; Dashboard results are always unfiltered, unless you have specified filter parameters in your request. Use this argument to include up to three optional filter Ids. You can obtain the list of defined filter Ids from the dashboard metadata using [sf_describe_dashboard](#).

Value

list

sf_rename_metadata *Rename Metadata Elements in Salesforce*

Description

[Experimental]

This function takes an old and new name for a metadata element in Salesforce and applies the new name

Usage

```
sf_rename_metadata(metadata_type, old_fullname, new_fullname, verbose = FALSE)
```

Arguments

metadata_type	character; string on what type of metadata to create.
old_fullname	character; string corresponding to the fullName of the element you would like to rename
new_fullname	character; string corresponding to the new fullName you would like to apply the targeted element
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A data.frame containing the creation result for each submitted metadata component

References

https://developer.salesforce.com/docs/atlas.en-us.api_meta.meta/api_meta

Examples

```
## Not run:
renamed_custom_object <- sf_rename_metadata(metadata_type = 'CustomObject',
                                             old_fullname = 'Custom_Account32__c',
                                             new_fullname = 'Custom_Account99__c')

## End(Not run)
```

sf_report_folders_list

List report folders

Description

[Experimental]

Usage

sf_report_folders_list()

Value

list

sf_report_folder_children

Get the subfolders (children) of a report folder

Description

[Experimental]

Usage

sf_report_folder_children(report_folder_id, page_size = 10, page = NULL)

Arguments

report_folder_id	character; the Salesforce Id assigned to a created analytics folder (it will start with "00I").
page_size	integer; integer that indicates how many results each page returns. Default is 10.
page	integer; integer that indicates which page of results to return.

sf_report_folder_create
Create report folder

Description

[Experimental]

Usage

```
sf_report_folder_create(body)
```

Arguments

body	list; a list of data to be formatted as JSON before being sent to an API endpoint. This is NOT validated and is only experimental in allowing users to utilize the API functionality before wrapper functions have been written in R to format and validate the request in a more user-friendly format.
------	---

Value

list

sf_report_folder_delete
Delete a report folder

Description

[Experimental]

Usage

```
sf_report_folder_delete(report_folder_id)
```

Arguments

report_folder_id	character; the Salesforce Id assigned to a created analytics folder (it will start with "001").
------------------	---

Value

logical

sf_report_folder_describe

Describe a report folder

Description

[Experimental]

Usage

```
sf_report_folder_describe(report_folder_id)
```

Arguments

report_folder_id

character; the Salesforce Id assigned to a created analytics folder (it will start with "00I").

Value

list

sf_report_folder_shares_add

Add shares to a report folder

Description

[Experimental]

Creates new shares and appends them to the existing share list for the folder.

Usage

```
sf_report_folder_shares_add(report_folder_id, body)
```

Arguments

report_folder_id

character; the Salesforce Id assigned to a created analytics folder (it will start with "00I").

body

list; a list of data to be formatted as JSON before being sent to an API endpoint. This is NOT validated and is only experimental in allowing users to utilize the API functionality before wrapper functions have been written in R to format and validate the request in a more user-friendly format.

Value

list

 sf_report_folder_shares_list

List the shares in a report folder

Description**[Experimental]****Usage**

sf_report_folder_shares_list(report_folder_id)

Arguments

report_folder_id

character; the Salesforce Id assigned to a created analytics folder (it will start with "00I").

Value

list

 sf_report_folder_shares_update

Update the shares for a report folder

Description**[Experimental]**

Creates new shares to replace the existing shares in the share list for the folder.

Usage

sf_report_folder_shares_update(report_folder_id, body)

Arguments

report_folder_id

character; the Salesforce Id assigned to a created analytics folder (it will start with "00I").

body

list; a list of data to be formatted as JSON before being sent to an API endpoint. This is NOT validated and is only experimental in allowing users to utilize the API functionality before wrapper functions have been written in R to format and validate the request in a more user-friendly format.

Value

list

sf_report_folder_share_delete

Delete a report folder share

Description

[Experimental]

Usage

sf_report_folder_share_delete(report_folder_id, share_id)

Arguments

report_folder_id

character; the Salesforce Id assigned to a created analytics folder (it will start with "001").

share_id

character; the Salesforce Id assigned to a created analytics folder share (it will start with "004").

Value

logical

sf_report_folder_share_describe

Describe a report folder share

Description

[Experimental]

Usage

sf_report_folder_share_describe(report_folder_id, share_id)

Arguments

report_folder_id

character; the Salesforce Id assigned to a created analytics folder (it will start with "001").

share_id

character; the Salesforce Id assigned to a created analytics folder share (it will start with "004").

Value

list

sf_report_folder_share_recipients
Get report folder share recipients

Description**[Experimental]****Usage**

```
sf_report_folder_share_recipients(
  report_folder_id,
  share_type = c("User", "Group", "Role"),
  search_term = "",
  limit = 100
)
```

Arguments

report_folder_id	character; the Salesforce Id assigned to a created analytics folder (it will start with "00l").
share_type	character; Return data for the recipients of the specified type, such as "User", "Group", or "Role".
search_term	character; Search to match share recipients' names. Default is "" (no restriction).
limit	integer; Limit to the number of search results. Default is 100.

Value

list

sf_report_folder_share_update

Update a report folder share

Description

[Experimental]

Usage

```
sf_report_folder_share_update(report_folder_id, share_id, body)
```

Arguments

report_folder_id	character; the Salesforce Id assigned to a created analytics folder (it will start with "001").
share_id	character; the Salesforce Id assigned to a created analytics folder share (it will start with "004").
body	list; a list of data to be formatted as JSON before being sent to an API endpoint. This is NOT validated and is only experimental in allowing users to utilize the API functionality before wrapper functions have been written in R to format and validate the request in a more user-friendly format.

Value

list

sf_report_folder_update

Update a report folder

Description

[Experimental]

Usage

```
sf_report_folder_update(report_folder_id, body)
```


Arguments

report_folder_id	character; the Salesforce Id assigned to a created analytics folder (it will start with "00I").
body	list; a list of data to be formatted as JSON before being sent to an API endpoint. This is NOT validated and is only experimental in allowing users to utilize the API functionality before wrapper functions have been written in R to format and validate the request in a more user-friendly format.

Value

list

sf_reset_password	<i>Reset User Password</i>
-------------------	----------------------------

Description**[Experimental]**

Changes a user's password to a temporary, system-generated value.

Usage

```
sf_reset_password(user_id, control = list(...), ..., verbose = FALSE)
```

Arguments

user_id	character; the unique Salesforce Id assigned to the User
control	list; a list of parameters for controlling the behavior of the API call being used. For more information of what parameters are available look at the documentation for sf_control .
...	arguments passed to sf_control
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

list

Examples

```
## Not run:
# reset a user's password and ensure that an email is triggered to them
sf_reset_password(user_id = "0056A000000ZZZaaBBB",
                 EmailHeader = list(triggerAutoResponseEmail = FALSE,
                                   triggerOtherEmail = FALSE,
                                   triggerUserEmail = TRUE))

## End(Not run)
```

sf_retrieve

*Retrieve Records By Id***Description****[Stable]**

Retrieves one or more new records to your organization's data.

Usage

```
sf_retrieve(
  ids,
  fields,
  object_name,
  api_type = c("REST", "SOAP", "Bulk 1.0", "Bulk 2.0"),
  guess_types = TRUE,
  control = list(...),
  ...,
  verbose = FALSE
)
```

Arguments

ids	vector, matrix, data.frame, or tbl_df; if not a vector, there must be a column called Id (case insensitive) that can be passed in the request.
fields	character; one or more strings indicating the fields to be returned on the records
object_name	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
guess_types	logical; indicating whether or not to use col_guess() to try and cast the data returned in the recordset. If TRUE then col_guess() is used, if FALSE then all fields will be returned as character. This is helpful when col_guess() will mangle field values in Salesforce that you'd like to preserve during translation into a tbl_df, like numeric looking values that must be preserved as strings ("48.0").

control	list; a list of parameters for controlling the behavior of the API call being used. For more information of what parameters are available look at the documentation for sf_control .
...	arguments passed to sf_control
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

tibble

Examples

```
## Not run:
n <- 3
new_contacts <- tibble(FirstName = rep("Test", n),
                      LastName = paste0("Contact", 1:n))
new_contacts_result <- sf_create(new_contacts, object_name="Contact")
retrieved_records <- sf_retrieve(ids=new_contacts_result$id,
                                fields=c("LastName"),
                                object_name="Contact")

## End(Not run)
```

sf_retrieve_metadata *Make A Request to Retrieve the Metadata*

Description

[Experimental]

This function makes a request to retrieve metadata as a package XML files that can be modified and later deployed into an environment

Usage

```
sf_retrieve_metadata(
  retrieve_request,
  filename = "package.zip",
  check_interval = 3,
  max_tries = 20,
  verbose = FALSE
)
```

Arguments

retrieve_request	a list of parameters defining what XML file representations should be returned
filename	a file path to save the zip file in the event that it is downloaded. The name must have a .zip extension. The default behavior will be to save in the current working directory as "package.zip"
check_interval	numeric; specifying the seconds to wait between retrieve status requests to check if complete
max_tries	numeric; specifying the maximum number of times to check whether the retrieve package.zip is complete before the function times out
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A list of details from the created retrieve request

Note

See the Salesforce documentation for the proper arguments to create a retrieveRequest. Here is a link to that documentation: https://developer.salesforce.com/docs/atlas.en-us.api_meta.meta/api_meta/meta_retrieve_request.htm

References

https://developer.salesforce.com/docs/atlas.en-us.api_meta.meta/api_meta/meta_retrieve_request.htm

Examples

```
## Not run:
retrieve_request <- list(unpackaged=list(types=list(members='*',
                                                    name='CustomObject')))
retrieve_info <- sf_retrieve_metadata(retrieve_request)

## End(Not run)
```

sf_run_bulk_operation *Run Bulk Operation*

Description

[Stable]

This function is a convenience wrapper for submitting bulk API jobs

Usage

```

sf_run_bulk_operation(
  input_data,
  object_name,
  operation = c("insert", "delete", "upsert", "update", "hardDelete"),
  external_id_fieldname = NULL,
  guess_types = TRUE,
  api_type = c("Bulk 1.0", "Bulk 2.0"),
  batch_size = NULL,
  interval_seconds = 3,
  max_attempts = 200,
  wait_for_results = TRUE,
  record_types = c("successfulResults", "failedResults", "unprocessedRecords"),
  combine_record_types = TRUE,
  control = list(...),
  ...,
  verbose = FALSE
)

sf_bulk_operation(
  input_data,
  object_name,
  operation = c("insert", "delete", "upsert", "update", "hardDelete"),
  external_id_fieldname = NULL,
  guess_types = TRUE,
  api_type = c("Bulk 1.0", "Bulk 2.0"),
  batch_size = NULL,
  interval_seconds = 3,
  max_attempts = 200,
  wait_for_results = TRUE,
  record_types = c("successfulResults", "failedResults", "unprocessedRecords"),
  combine_record_types = TRUE,
  control = list(...),
  ...,
  verbose = FALSE
)

```

Arguments

<code>input_data</code>	named vector, matrix, data.frame, or tbl_df; data can be coerced into CSV file for submitting as batch request
<code>object_name</code>	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
<code>operation</code>	character; string defining the type of operation being performed
<code>external_id_fieldname</code>	character; string identifying a custom field on the object that has been set as an "External ID" field. This field is used to reference objects during upserts to determine if the record already exists in Salesforce or not.

guess_types	logical; indicating whether or not to use col_guess() to try and cast the data returned in the recordset. If TRUE then col_guess() is used, if FALSE then all fields will be returned as character. This is helpful when col_guess() will mangle field values in Salesforce that you'd like to preserve during translation into a tbl_df, like numeric looking values that must be preserved as strings ("48.0").
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
batch_size	integer; the number of individual records to be included in a single batch uploaded to the Bulk APIs (1.0 or 2.0).
interval_seconds	integer; defines the seconds between attempts to check for job completion.
max_attempts	integer; defines then max number attempts to check for job completion before stopping.
wait_for_results	logical; indicating whether to wait for the operation to complete so that the batch results of individual records can be obtained
record_types	character; one or more types of records to retrieve from the results of running the specified job
combine_record_types	logical; indicating for Bulk 2.0 jobs whether the successfulResults, failedResults, and unprocessedRecords should be stacked together by binding the rows
control	list; a list of parameters for controlling the behavior of the API call being used. For more information of what parameters are available look at the documentation for sf_control .
...	other arguments passed on to sf_control or sf_create_job_bulk to specify the content_type, concurrency_mode, and/or column_delimiter.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A tbl_df of the results of the bulk job

Note

With Bulk 2.0 the order of records in the response is not guaranteed to match the ordering of records in the original job data.

See Also

[Salesforce Documentation](#)

Examples

```
## Not run:
n <- 20
new_contacts <- tibble(FirstName = rep("Test", n),
                      LastName = paste0("Contact", 1:n))
# insert new records into the Contact object
inserts <- sf_bulk_operation(input_data = new_contacts,
                             object_name = "Contact",
                             operation = "insert")

## End(Not run)
```

sf_run_bulk_query	<i>Run bulk query</i>
-------------------	-----------------------

Description**[Stable]**

This function is a convenience wrapper for submitting and retrieving query API jobs from the Bulk 1.0 and Bulk 2.0 APIs.

Usage

```
sf_run_bulk_query(
  soql,
  object_name = NULL,
  queryall = FALSE,
  guess_types = TRUE,
  bind_using_character_cols = deprecated(),
  interval_seconds = 3,
  max_attempts = 200,
  control = list(...),
  ...,
  api_type = c("Bulk 2.0", "Bulk 1.0"),
  verbose = FALSE
)
```

```
sf_query_bulk(
  soql,
  object_name = NULL,
  queryall = FALSE,
  guess_types = TRUE,
  bind_using_character_cols = deprecated(),
  interval_seconds = 3,
  max_attempts = 200,
  control = list(...),
  ...,

```

```

    api_type = c("Bulk 2.0", "Bulk 1.0"),
    verbose = FALSE
)

```

Arguments

soql	character; a string defining a SOQL query (e.g. "SELECT Id, Name FROM Account").
object_name	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
queryall	logical; indicating if the query recordset should include records that have been deleted because of a merge or delete. Setting this argument to TRUE will also return information about archived Task and Event records. It is available in API versions 29.0 and later.
guess_types	logical; indicating whether or not to use <code>col_guess()</code> to try and cast the data returned in the recordset. If TRUE then <code>col_guess()</code> is used, if FALSE then all fields will be returned as character. This is helpful when <code>col_guess()</code> will mangle field values in Salesforce that you'd like to preserve during translation into a <code>tbl_df</code> , like numeric looking values that must be preserved as strings ("48.0").
bind_using_character_cols	logical; an indicator of whether to cast the data to all character columns to ensure that <code>bind_rows</code> does not fail because two paginated recordsets have differing datatypes for the same column. Set this to TRUE rarely, typically only when having this set to FALSE returns an error or you want all columns in the data to be character.
interval_seconds	integer; defines the seconds between attempts to check for job completion.
max_attempts	integer; defines then max number attempts to check for job completion before stopping.
control	list; a list of parameters for controlling the behavior of the API call being used. For more information of what parameters are available look at the documentation for <code>sf_control</code> .
...	other arguments passed on to <code>sf_control</code> or <code>sf_create_job_bulk</code> to specify the <code>content_type</code> , <code>concurrency_mode</code> , and/or <code>column_delimiter</code> .
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A `tbl_df` of the recordset returned by the query

References

[Bulk 1.0 documentation](#) and [Bulk 2.0 documentation](#)

Examples

```
## Not run:
# select all Ids from Account object (up to 1000)
ids <- sf_query_bulk(soql = 'SELECT Id FROM Account LIMIT 1000')

# note that, by default, bulk queries are executed using the Bulk 2.0 API, which
# does not required the object name, but the Bulk 1.0 API can be still be invoked
# for queries by setting api_type="Bulk 1.0".

# alternatively you can specify as:
ids <- sf_query(soql = 'SELECT Id FROM Account LIMIT 1000',
                api_type = "Bulk 2.0")

ids <- sf_query(soql = 'SELECT Id FROM Account LIMIT 1000',
                object_name = 'Account',
                api_type = "Bulk 1.0")

## End(Not run)
```

sf_run_report

Get a report's data in tabular format

Description

[Experimental]

This function is a convenience wrapper for retrieving the data from a report. By default, it executes an asynchronous report and waits for the detailed data summarized in a tabular format, before pulling them down and returning as a `tbl_df`.

Usage

```
sf_run_report(
  report_id,
  report_filters = NULL,
  report_boolean_logic = NULL,
  sort_by = character(0),
  decreasing = FALSE,
  top_n = NULL,
  async = TRUE,
  interval_seconds = 3,
  max_attempts = 200,
  wait_for_results = TRUE,
  guess_types = TRUE,
  bind_using_character_cols = deprecated(),
```

```

    fact_map_key = "T!T",
    verbose = FALSE
)

```

Arguments

report_id	character; the Salesforce Id assigned to a created analytics report. It will start with "000".
report_filters	list; A list of reportFilter specifications. Each must be a list with 3 elements: 1) column, 2) operator, and 3) value. You can find out how certain field types can be filtered by reviewing the results of sf_list_report_filter_operators .
report_boolean_logic	character; a string of boolean logic to parse custom field filters if more than one is specified. For example, if three filters are specified, then they can be combined using the logic "(1 OR 2) AND 3".
sort_by	character; the name of the column(s) used to sort the results.
decreasing	logical; a indicator of whether the results should be ordered by increasing or decreasing values in sort_by column when selecting the top N records. Note, this argument will be ignored if not specifying Top N. You can sort the records using arrange after the results are returned.
top_n	integer; an integer which sets a row limit filter to a report. The results will be ordered as they appear in the report unless specified differently via the sort_by and decreasing arguments. Note, it is sometimes helpful to specify the top_n argument if a report contains many rows, but you are only interested in a subset of them. Alternatively, you can limit the count of returned rows via the report_filters argument.
async	logical; an indicator, by default set to TRUE, which executes the report asynchronously. If executed asynchronously, this function will return a list of attributes of the created report instance. The results can be pulled down by providing the report id and instance id to the function sf_get_report_instance_results . Refer to the details of the documentation on why executing a report asynchronously is preferred.
interval_seconds	integer; defines the seconds between attempts to check for job completion.
max_attempts	integer; defines then max number attempts to check for job completion before stopping.
wait_for_results	logical; indicating whether to wait for the report finish running so that data can be obtained. Otherwise, return the report instance details which can be used to retrieve the results when the async report has finished.
guess_types	logical; indicating whether or not to use <code>col_guess()</code> to try and cast the data returned in the recordset. If TRUE then <code>col_guess()</code> is used, if FALSE then all fields will be returned as character. This is helpful when <code>col_guess()</code> will mangle field values in Salesforce that you'd like to preserve during translation into a <code>tbl_df</code> , like numeric looking values that must be preserved as strings ("48.0").

bind_using_character_cols	logical; an indicator of whether to cast the data to all character columns to ensure that <code>bind_rows</code> does not fail because two paginated recordsets have differing datatypes for the same column. Set this to TRUE rarely, typically only when having this set to FALSE returns an error or you want all columns in the data to be character.
fact_map_key	character; string providing an index into each section of a fact map, from which you can access summary and detailed data. The pattern for the fact map keys varies by report format so it is important to know what the <code>reportFormat</code> property of the target report is. See the note below for more details.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Details

This function is essentially a wrapper around `sf_execute_report`. Please review or use that function and/or `sf_query_report` if you want to have more control over how the report is run and what format should be returned. In this case we've forced the `reportFormat="TABULAR"` without total rows and given options to filter, and select the Top N as function arguments rather than forcing the user to create an entire list of `reportMetadata`.

Value

`tbl_df`

Salesforce Documentation

- [Sync Documentation](#)
- [Sync Example](#)
- [Async Documentation](#)
- [Async Example](#)
- [Filtering Results](#)

Note

Below are the fact map key patterns for three report types:

TABULAR T!T: The grand total of a report. Both record data values and the grand total are represented by this key.

SUMMARY <First level row grouping_second level row grouping_third level row grouping>!T: T refers to the row grand total.

MATRIX <First level row grouping_second level row grouping>!<First level column grouping_second level column grouping>.

Each item in a row or column grouping is numbered starting with 0. Here are some examples of fact map keys:

sf_search	<i>Perform SOSL Search</i>
-----------	----------------------------

Description**[Stable]**

Searches for records in your organization's data.

Usage

```
sf_search(
  search_string,
  is_sosl = FALSE,
  guess_types = TRUE,
  api_type = c("REST", "SOAP", "Bulk 1.0", "Bulk 2.0"),
  parameterized_search_options = list(...),
  verbose = FALSE,
  ...
)
```

Arguments

search_string	character; string to search using parameterized search or SOSL. Note that is_sosl must be set to TRUE and the string valid in order to perform a search using SOSL.
is_sosl	logical; indicating whether or not to try the string as SOSL
guess_types	logical; indicating whether or not to use col_guess() to try and cast the data returned in the recordset. If TRUE then col_guess() is used, if FALSE then all fields will be returned as character. This is helpful when col_guess() will mangle field values in Salesforce that you'd like to preserve during translation into a tbl_df, like numeric looking values that must be preserved as strings ("48.0").
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
parameterized_search_options	list; a list of parameters for controlling the search if not using SOSL. If using SOSL this argument is ignored.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.
...	arguments to be used to form the parameterized search options argument if it is not supplied directly.

Value

tibble

Note

The maximum number of returned rows in the SOSL query results is 2,000. Please refer to the limits [HERE](#) for more detail.

References

https://developer.salesforce.com/docs/atlas.en-us.soql_sosl.meta/soql_sosl/sforce_api_calls_sosl.htm

Examples

```
## Not run:
# free text search
area_code_search_string <- "(336)"
search_result <- sf_search(area_code_search_string)

# free text search with parameters
search_result <- sf_search(area_code_search_string,
                           fields_scope = "PHONE",
                           objects = "Lead",
                           fields = c("id", "phone", "firstname", "lastname"))

# using SOSL
my_sosl_search <- paste("FIND {(336)} in phone fields returning",
                       "contact(id, phone, firstname, lastname)",
                       "lead(id, phone, firstname, lastname)")
sosl_search_result <- sf_search(my_sosl_search, is_sosl=TRUE)

## End(Not run)
```

sf_server_timestamp *Salesforce Server Timestamp*

Description**[Stable]**

Retrieves the current system timestamp from the API.

Usage

```
sf_server_timestamp()
```

Value

POSIXct formatted timestamp

Examples

```
## Not run:  
sf_server_timestamp()  
  
## End(Not run)
```

```
sf_set_dashboard_sticky_filter  
    Set a sticky dashboard filter
```

Description

[Experimental]

Set a default filter value which gets applied to a dashboard when you open it. The default filter value you specify only applies to you (other people won't see it when they open the dashboard). If you change the filter value while viewing the dashboard, then the filter value you set in the user interface overwrites the value you set via the API. To set sticky filters for a dashboard, `canUseStickyFilter` must equal `true`. Saves any dashboard filters set in the request so that they're also set the next time you open the dashboard. NOTE: You can only set dashboard filters for yourself, not for other users.

Usage

```
sf_set_dashboard_sticky_filter(  
  dashboard_id,  
  dashboard_filters = c(character(0))  
)
```

Arguments

`dashboard_id` character; the Salesforce Id assigned to a created dashboard. It will start with "01Z".

`dashboard_filters` character; Dashboard results are always unfiltered, unless you have specified filter parameters in your request. Use this argument to include up to three optional filter Ids. You can obtain the list of defined filter Ids from the dashboard metadata using [sf_describe_dashboard](#).

Value

list

sf_set_password *Set User Password*

Description

[Experimental]

Sets the specified user's password to the specified value.

Usage

```
sf_set_password(user_id, password, verbose = FALSE)
```

Arguments

user_id	character; the unique Salesforce Id assigned to the User
password	character; a new password that you would like to set for the supplied user that complies to your organizations password requirements
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

list

Examples

```
## Not run:
sf_set_password(user_id = "0056A000000ZZZaaBBB", password="password123")

## End(Not run)
```

sf_submit_query_bulk *Submit Bulk Query Batch to a Bulk API Job*

Description

This function takes a SOQL text string and submits the query to an already existing Bulk API Job of operation "query"

Usage

```
sf_submit_query_bulk(job_id, soql, api_type = c("Bulk 1.0"), verbose = FALSE)
```


Arguments

job_id	character; the Salesforce Id assigned to a submitted job as returned by sf_create_job_bulk . It will start with "750".
soql	character; a string defining a SOQL query (e.g. "SELECT Id, Name FROM Account").
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A list parameters of the batch

Note

Bulk API query doesn't support the following SOQL:

- COUNT
- ROLLUP
- SUM
- GROUP BY CUBE
- OFFSET
- Nested SOQL queries
- Relationship fields

Additionally, Bulk API can't access or query compound address or compound geolocation fields.

References

[Bulk 1.0 documentation](#)

Examples

```
## Not run:
my_query <- "SELECT Id, Name FROM Account LIMIT 1000"
job_info <- sf_create_job_bulk(operation = 'query', object = 'Account')
query_info <- sf_submit_query_bulk(job_id = job_info$id, soql = my_query)

## End(Not run)
```

sf_undelete

*Undelete Records***Description****[Experimental]**

Undeletes records from the Recycle Bin.

Usage

```
sf_undelete(
  ids,
  api_type = c("SOAP"),
  control = list(...),
  ...,
  verbose = FALSE
)
```

Arguments

ids	vector, matrix, data.frame, or tbl_df; if not a vector, there must be a column called Id (case-insensitive) that can be passed in the request
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
control	list; a list of parameters for controlling the behavior of the API call being used. For more information of what parameters are available look at the documentation for sf_control .
...	arguments passed to sf_control
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

tbl_df of records with success indicator

Note

Because the SOAP and REST calls chunk data into batches of 200 records the AllOrNoneHeader will only apply to the success or failure of every batch of records and not all records submitted to the function.

References

https://developer.salesforce.com/docs/atlas.en-us.api.meta/api/sforce_api_calls_undelete.htm

Examples

```
## Not run:
new_contact <- c(FirstName = "Test", LastName = "Contact")
new_records <- sf_create(new_contact, object_name = "Contact")
delete <- sf_delete(new_records$id[1],
                    AllOrNoneHeader = list(allOrNone = TRUE))
is_deleted <- sf_query(sprintf("SELECT Id, IsDeleted FROM Contact WHERE Id='%s'",
                              new_records$id[1]),
                      queryall = TRUE)
undelete <- sf_undelete(new_records$id[1])
is_not_deleted <- sf_query(sprintf("SELECT Id, IsDeleted FROM Contact WHERE Id='%s'",
                                   new_records$id[1]))

## End(Not run)
```

sf_update

*Update Records***Description****[Stable]**

Updates one or more records to your organization's data.

Usage

```
sf_update(
  input_data,
  object_name,
  api_type = c("SOAP", "REST", "Bulk 1.0", "Bulk 2.0"),
  guess_types = TRUE,
  control = list(...),
  ...,
  all_or_none = deprecated(),
  verbose = FALSE
)
```

Arguments

input_data	named vector, matrix, data.frame, or tbl_df; data can be coerced into a data.frame. If performing an update, upsert, or delete operation, then one column or field must be the Id of the record to modify or delete.
object_name	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.

guess_types	logical; indicating whether or not to use <code>col_guess()</code> to try and cast the data returned in the recordset. If TRUE then <code>col_guess()</code> is used, if FALSE then all fields will be returned as character. This is helpful when <code>col_guess()</code> will mangle field values in Salesforce that you'd like to preserve during translation into a <code>tbl_df</code> , like numeric looking values that must be preserved as strings ("48.0").
control	list; a list of parameters for controlling the behavior of the API call being used. For more information of what parameters are available look at the documentation for sf_control .
...	arguments passed to sf_control or further downstream to sf_bulk_operation
all_or_none	logical; allows a call to roll back all changes unless all records are processed successfully.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

`tbl_df` of records with success indicator

Note

Because the SOAP and REST calls chunk data into batches of 200 records the AllOrNoneHeader will only apply to the success or failure of every batch of records and not all records submitted to the function.

Examples

```
## Not run:
n <- 2
new_contacts <- tibble(FirstName = rep("Test", n),
                      LastName = paste0("Contact", 1:n))
new_records <- sf_create(new_contacts, "Contact")
updated_contacts <- tibble(FirstName = rep("TestTest", n),
                          LastName = paste0("Contact", 1:n),
                          Id = new_records$id)
# update and allow fields to be truncated if they are too long
update <- sf_update(input_data = updated_contacts, object_name = "Contact",
                   AllowFieldTruncationHeader=list(allowFieldTruncation=TRUE))

## End(Not run)
```

 sf_update_attachment *Update Attachments*

Description

[Experimental]

This function will allow you to update attachments (and other blob data, such as Documents) by providing the Id of the attachment record and the file paths (absolute or relative) to media that you would like to upload to Salesforce along with other supported metadata for this operation (Name, Body, IsPrivate, and OwnerId).

Usage

```
sf_update_attachment(
  attachment_input_data,
  object_name = c("Attachment"),
  api_type = c("SOAP", "REST", "Bulk 1.0", "Bulk 2.0"),
  control = list(...),
  ...,
  verbose = FALSE
)
```

Arguments

attachment_input_data	named vector, matrix, data.frame, or tbl_df; data can be coerced into a data.frame. The input must contain a column entitled 'Body' with an absolute or relative file path (unless creating a Document using a Url) along with other required fields depending on the object. If performing an update operation, then one column or field of the input must be the Id of the record to modify.
object_name	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
control	list; a list of parameters for controlling the behavior of the API call being used. For more information of what parameters are available look at the documentation for sf_control .
...	arguments passed to sf_control or further downstream to sf_bulk_operation
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

tbl_df with details of the created records

Salesforce Documentation

- [Attachment Object \(SOAP\)](#)
- [Document Object \(SOAP\)](#)
- [Insert or Update Blob Data](#)

Note

The length of any file name can't exceed 512 bytes (per Bulk 1.0 API). The SOAP API create call restricts these files to a maximum size of 25 MB. For a file attached to a Solution, the limit is 1.5 MB. The maximum email attachment size is 3 MB. You can only create or update documents to a maximum size of 5 MB. The REST API allows you to insert or update blob data limited to 50 MB of text data or 37.5 MB of base64-encoded data.

See Also

Other Attachment functions: [check_and_encode_files\(\)](#), [sf_create_attachment\(\)](#), [sf_delete_attachment\(\)](#), [sf_download_attachment\(\)](#)

Examples

```
## Not run:
# upload a PDF to a particular record as an Attachment
file_path <- system.file("extdata",
                        "data-wrangling-cheatsheet.pdf",
                        package = "salesforcer")
parent_record_id <- "0036A000002C6MmQAK" # replace with your own ParentId!
attachment_details <- tibble(Body = file_path, ParentId = parent_record_id)
create_result <- sf_create_attachment(attachment_details)

# download, zip, and re-upload the PDF
pdf_path <- sf_download_attachment(sf_id = create_result$id[1])
zipped_path <- paste0(pdf_path, ".zip")
zip(zipped_path, pdf_path)
attachment_details <- tibble(Id = create_result$id, Body = zipped_path)
update_result <- sf_update_attachment(attachment_details)

## End(Not run)
```

sf_update_dashboard *Update a dashboard*

Description

[Experimental]

Usage

```
sf_update_dashboard/dashboard_id, body)
```

Arguments

dashboard_id	character; the Salesforce Id assigned to a created dashboard. It will start with "01Z".
body	list; a list of data to be formatted as JSON before being sent to an API endpoint. This is NOT validated and is only experimental in allowing users to utilize the API functionality before wrapper functions have been written in R to format and validate the request in a more user-friendly format.

Value

list

sf_update_metadata *Update Object or Field Metadata in Salesforce*

Description**[Experimental]**

This function takes a list of Metadata components and sends them to Salesforce to update an object that already exists

Usage

```
sf_update_metadata(
  metadata_type,
  metadata,
  control = list(...),
  ...,
  all_or_none = deprecated(),
  verbose = FALSE
)
```

Arguments

metadata_type	character; string on what type of metadata to create.
metadata	list; metadata components to be created formatted as XML before being sent via API.
control	list; a list of parameters for controlling the behavior of the API call being used. For more information of what parameters are available look at the documentation for sf_control .
...	arguments passed to sf_control
all_or_none	logical; allows a call to roll back all changes unless all records are processed successfully.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A tbl_df containing the creation result for each submitted metadata component

Note

The update key is based on the fullName parameter of the metadata, so updates are triggered when an existing Salesforce element matches the metadata type and fullName.

See Also

[Salesforce Documentation](#)

Examples

```
## Not run:
# create an object that we can update
base_obj_name <- "Custom_Account1"
custom_object <- list()
custom_object$fullName <- paste0(base_obj_name, "__c")
custom_object$label <- paste0(gsub("_", " ", base_obj_name))
custom_object$pluralLabel <- paste0(base_obj_name, "s")
custom_object$nameField <- list(displayFormat = 'AN-{{0000}}',
                               label = paste0(base_obj_name, ' Number'),
                               type = 'AutoNumber')

custom_object$deploymentStatus <- 'Deployed'
custom_object$sharingModel <- 'ReadWrite'
custom_object$enableActivities <- 'true'
custom_object$description <- paste0(base_obj_name, " created by the Metadata API")
custom_object_result <- sf_create_metadata(metadata_type = 'CustomObject',
                                          metadata = custom_object)

# now update the object that was created
update_metadata <- custom_object
update_metadata$fullName <- 'Custom_Account1__c'
update_metadata$label <- 'New Label Custom_Account1'
update_metadata$pluralLabel <- 'Custom_Account1s_new'
updated_custom_object_result <- sf_update_metadata(metadata_type = 'CustomObject',
                                                  metadata = update_metadata)

## End(Not run)
```

sf_update_report

Update a report

Description**[Experimental]**

Save changes to a report by sending a PATCH request to the Report resource. Note that saving a report deletes any running async report jobs because they might be obsolete based on the updates.


```
# alternatively, pull down its metadata and update the name
report_details <- sf_describe_report(this_report_id)
report_details$reportMetadata$name <- paste0(report_details$reportMetadata$name,
      " - UPDATED")

# fourth, update the report by passing the metadata
my_updated_report <- sf_update_report(this_report_id,
      report_metadata = report_details)

## End(Not run)
```

```
sf_upload_complete_bulk
```

Signal Upload Complete to Bulk API Job

Description

This function signals that uploads are complete to a Job in the Salesforce Bulk API

Usage

```
sf_upload_complete_bulk(job_id, api_type = c("Bulk 2.0"), verbose = FALSE)
```

Arguments

job_id	character; the Salesforce Id assigned to a submitted job as returned by sf_create_job_bulk . It will start with "750".
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A list of parameters defining the job after signaling a completed upload

Note

This function is typically not used directly. It is used in `sf_create_batches_bulk()` right after submitting the batches to signal to Salesforce that the batches should no longer be queued.

References

https://developer.salesforce.com/docs/atlas.en-us.api_asynch.meta/api_asynch

Examples

```
## Not run:
upload_info <- sf_upload_complete_bulk(job_id=job_info$id)

## End(Not run)
```

sf_upsert

*Upsert Records***Description****[Stable]**

Upserts one or more new records to your organization's data.

Usage

```
sf_upsert(
  input_data,
  object_name,
  external_id_fieldname,
  api_type = c("SOAP", "REST", "Bulk 1.0", "Bulk 2.0"),
  guess_types = TRUE,
  control = list(...),
  ...,
  all_or_none = deprecated(),
  verbose = FALSE
)
```

Arguments

input_data	named vector, matrix, data.frame, or tbl_df; data can be coerced into a data.frame. If performing an update, upsert, or delete operation, then one column or field must be the Id of the record to modify or delete.
object_name	character; the name of the Salesforce object that the function is operating against (e.g. "Account", "Contact", "CustomObject__c").
external_id_fieldname	character; string identifying a custom field on the object that has been set as an "External ID" field. This field is used to reference objects during upserts to determine if the record already exists in Salesforce or not.
api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
guess_types	logical; indicating whether or not to use col_guess() to try and cast the data returned in the recordset. If TRUE then col_guess() is used, if FALSE then all fields will be returned as character. This is helpful when col_guess() will mangle field values in Salesforce that you'd like to preserve during translation into a tbl_df, like numeric looking values that must be preserved as strings ("48.0").

control	list; a list of parameters for controlling the behavior of the API call being used. For more information of what parameters are available look at the documentation for sf_control .
...	arguments passed to sf_control or further downstream to sf_bulk_operation
all_or_none	logical; allows a call to roll back all changes unless all records are processed successfully.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

tbl_df of records with success indicator

Examples

```
## Not run:
n <- 2
new_contacts <- tibble(FirstName = rep("Test", n),
                       LastName = paste0("Contact-Create-", 1:n),
                       My_External_Id__c=letters[1:n])
new_contacts_result <- sf_create(new_contacts, object_name="Contact")

upserted_contacts <- tibble(FirstName = rep("Test", n),
                           LastName = paste0("Contact-Upsert-", 1:n),
                           My_External_Id__c=letters[1:n])
new_record <- tibble(FirstName = "Test",
                    LastName = paste0("Contact-Upsert-", n+1),
                    My_External_Id__c=letters[n+1])
upserted_contacts <- bind_rows(upserted_contacts, new_record)

upserted_contacts_result1 <- sf_upsert(upserted_contacts,
                                     object_name="Contact",
                                     "My_External_Id__c")

## End(Not run)
```

sf_upsert_metadata *Upsert Object or Field Metadata in Salesforce*

Description

[Experimental]

This function takes a list of Metadata components and sends them to Salesforce for creation or update if the object already exists

Usage

```
sf_upsert_metadata(
  metadata_type,
  metadata,
  control = list(...),
  ...,
  all_or_none = deprecated(),
  verbose = FALSE
)
```

Arguments

metadata_type	character; string on what type of metadata to create.
metadata	list; metadata components to be created formatted as XML before being sent via API.
control	list; a list of parameters for controlling the behavior of the API call being used. For more information of what parameters are available look at the documentation for sf_control .
...	arguments passed to sf_control
all_or_none	logical; allows a call to roll back all changes unless all records are processed successfully.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

A tbl_df containing the creation result for each submitted metadata component

Note

The upsert key is based on the fullName parameter of the metadata, so updates are triggered when an existing Salesforce element matches the metadata type and fullName.

See Also

[Salesforce Documentation](#)

Examples

```
## Not run:
# create an object that we can confirm the update portion of the upsert
base_obj_name <- "Custom_Account1"
custom_object <- list()
custom_object$fullName <- paste0(base_obj_name, "__c")
custom_object$label <- paste0(gsub("_", " ", base_obj_name))
custom_object$pluralLabel <- paste0(base_obj_name, "s")
```

```

custom_object$nameField <- list(displayFormat = 'AN-{0000}',
                                label = paste0(base_obj_name, ' Number'),
                                type = 'AutoNumber')
custom_object$deploymentStatus <- 'Deployed'
custom_object$sharingModel <- 'ReadWrite'
custom_object$enableActivities <- 'true'
custom_object$description <- paste0(base_obj_name, " created by the Metadata API")
custom_object_result <- sf_create_metadata(metadata_type = 'CustomObject',
                                           metadata = custom_object)

# now update the object that was created
upsert_metadata <- list(custom_object, custom_object)
upsert_metadata[[1]]$fullName <- 'Custom_Account1__c'
upsert_metadata[[1]]$label <- 'New Label Custom_Account1'
upsert_metadata[[1]]$pluralLabel <- 'Custom_Account1s_new'
upsert_metadata[[2]]$fullName <- 'Custom_Account2__c'
upsert_metadata[[2]]$label <- 'New Label Custom_Account2'
upsert_metadata[[2]]$pluralLabel <- 'Custom_Account2s_new'
upserted_custom_object_result <- sf_upsert_metadata(metadata_type = 'CustomObject',
                                                    metadata = upsert_metadata)

## End(Not run)

```

sf_user_info

Return Current User Info

Description

[Stable]

Retrieves personal information for the user associated with the current session.

Usage

```
sf_user_info(api_type = c("SOAP", "Chatter"), verbose = FALSE)
```

Arguments

api_type	character; one of "REST", "SOAP", "Bulk 1.0", or "Bulk 2.0" indicating which API to use when making the request.
verbose	logical; an indicator of whether to print additional detail for each API call, which is useful for debugging. More specifically, when set to TRUE the URL, header, and body will be printed for each request, along with additional diagnostic information where available.

Value

list

Examples

```
## Not run:  
sf_user_info()  
  
## End(Not run)
```

valid_metadata_list *List of Valid Data Types*

Description

A list of data types that are valid for the Metadata API service.

Usage

```
valid_metadata_list()
```

Value

codelist; contains name and valid inputs for data types

Index

- * **Attachment functions**
 - sf_create_attachment, 234
 - sf_delete_attachment, 245
 - sf_download_attachment, 257
 - sf_update_attachment, 333
- * **Report Instance functions**
 - sf_delete_report_instance, 250
 - sf_get_report_instance_results, 276
 - sf_list_report_instances, 287
- * **Report functions**
 - sf_copy_report, 231
 - sf_create_report, 242
 - sf_delete_report, 249
 - sf_describe_report, 255
 - sf_describe_report_type, 256
 - sf_execute_report, 260
 - sf_list_report_fields, 284
 - sf_list_report_filter_operators, 286
 - sf_list_report_types, 288
 - sf_list_reports, 283
 - sf_query_report, 297
 - sf_run_report, 321
 - sf_update_report, 336
- arrange, 322
- base64encode, 10, 11, 15, 16, 20, 27, 29, 53–55, 57, 129, 133, 137, 176, 181, 183, 191, 194, 195
- bind_rows, 261, 276, 293, 294, 296, 299, 301, 302, 320, 323
- check_and_encode_files, 235, 246, 258, 334
- collapse_list_with_dupe_names, 5
- glm, 225
- glm.control, 225
- metadata_type_validator, 5
- oauth2.0_token, 221
- parameterized_search_control, 205
- rforcecom.bulkAction, 206
- rforcecom.bulkQuery, 207
- rforcecom.create, 208
- rforcecom.delete, 209
- rforcecom.getObjectDescription, 210
- rforcecom.getServerTimestamp, 210
- rforcecom.login, 211
- rforcecom.query, 212
- rforcecom.retrieve, 212
- rforcecom.search, 213
- rforcecom.update, 214
- rforcecom.upsert, 214
- sf_abort_job_bulk, 215
- sf_analytics_notification_create, 217
- sf_analytics_notification_delete, 218
- sf_analytics_notification_describe, 219
- sf_analytics_notification_update, 219
- sf_analytics_notifications_limits, 216
- sf_analytics_notifications_list, 217
- sf_auth, 220
- sf_batch_details_bulk, 222, 299, 301
- sf_batch_status_bulk, 223
- sf_bulk_operation, 233, 235, 244, 245, 332, 333, 340
- sf_bulk_operation
 - (sf_run_bulk_operation), 316
- sf_close_job_bulk, 224
- sf_control, 225, 229, 233, 235, 239, 240, 244, 245, 248, 253, 291, 292, 295, 296, 313, 315, 318, 320, 330, 332, 333, 335, 340, 341
- sf_convert_lead, 228

- [sf_copy_dashboard](#), 231
- [sf_copy_report](#), 231, 243, 249, 256, 257, 263, 284–286, 288, 298, 324, 337
- [sf_create](#), 226, 227, 233
- [sf_create_attachment](#), 234, 246, 258, 334
- [sf_create_batches_bulk](#), 222, 223, 236, 299, 301
- [sf_create_job_bulk](#), 215, 222–224, 227, 236, 237, 247, 274, 275, 279, 295, 296, 299, 301, 302, 318, 320, 329, 338
- [sf_create_metadata](#), 204, 226, 240
- [sf_create_report](#), 232, 242, 249, 256, 257, 263, 284–286, 288, 298, 324, 337
- [sf_delete](#), 226, 227, 243, 245
- [sf_delete_attachment](#), 235, 245, 258, 334
- [sf_delete_dashboard](#), 246
- [sf_delete_job_bulk](#), 247
- [sf_delete_metadata](#), 226, 247
- [sf_delete_report](#), 232, 243, 249, 256, 257, 263, 284–286, 288, 298, 324, 337
- [sf_delete_report_instance](#), 250, 277, 287
- [sf_describe_dashboard](#), 251, 271, 272, 304, 327
- [sf_describe_dashboard_components](#), 252
- [sf_describe_metadata](#), 252
- [sf_describe_object_fields](#), 254
- [sf_describe_objects](#), 227, 253
- [sf_describe_report](#), 232, 242, 243, 249, 255, 257, 263, 284–286, 288, 298, 324, 337
- [sf_describe_report_type](#), 232, 243, 249, 256, 256, 263, 284–286, 288, 298, 324, 337
- [sf_download_attachment](#), 235, 246, 257, 334
- [sf_empty_recycle_bin](#), 259
- [sf_execute_report](#), 232, 243, 249, 256, 257, 260, 284–286, 288, 298, 323, 324, 337
- [sf_filter_dashboard_operators_list](#), 263
- [sf_filter_dashboard_options_analysis](#), 264
- [sf_find_duplicates](#), 265
- [sf_find_duplicates_by_id](#), 266
- [sf_get_all_jobs_bulk](#), 267
- [sf_get_all_query_jobs_bulk](#), 269
- [sf_get_dashboard_data](#), 270, 271
- [sf_get_dashboard_results](#), 271
- [sf_get_dashboard_status](#), 272
- [sf_get_deleted](#), 272
- [sf_get_job_bulk](#), 273
- [sf_get_job_records_bulk](#), 274
- [sf_get_report_instance_results](#), 250, 261, 276, 287, 322
- [sf_get_updated](#), 278
- [sf_job_batches_bulk](#), 279
- [sf_list_api_limits](#), 280
- [sf_list_dashboards](#), 281
- [sf_list_metadata](#), 248, 282
- [sf_list_objects](#), 283
- [sf_list_report_fields](#), 232, 243, 249, 256, 257, 263, 284, 284, 286, 288, 298, 324, 337
- [sf_list_report_filter_operators](#), 232, 243, 249, 256, 257, 262, 263, 284, 285, 286, 288, 298, 322, 324, 337
- [sf_list_report_instances](#), 250, 277, 287
- [sf_list_report_types](#), 232, 242, 243, 249, 256, 257, 263, 284–286, 288, 298, 324, 337
- [sf_list_reports](#), 232, 243, 249, 256, 257, 263, 283, 285, 286, 288, 298, 324, 337
- [sf_list_resources](#), 289
- [sf_list_rest_api_versions](#), 289
- [sf_merge](#), 290, 290
- [sf_query](#), 227, 258, 284, 291
- [sf_query_bulk](#), 228, 292
- [sf_query_bulk \(sf_run_bulk_query\)](#), 319
- [sf_query_bulk_v1](#), 294
- [sf_query_bulk_v2](#), 295
- [sf_query_report](#), 232, 243, 249, 256, 257, 263, 284–286, 288, 297, 323, 324, 337
- [sf_query_result_bulk](#), 299
- [sf_query_result_bulk_v1](#), 300
- [sf_query_result_bulk_v2](#), 302, 302
- [sf_read_metadata](#), 303
- [sf_refresh_dashboard](#), 304
- [sf_rename_metadata](#), 305
- [sf_report_folder_children](#), 306
- [sf_report_folder_create](#), 307
- [sf_report_folder_delete](#), 307
- [sf_report_folder_describe](#), 308

sf_report_folder_share_delete, 310
sf_report_folder_share_describe, 310
sf_report_folder_share_recipients, 311
sf_report_folder_share_update, 312
sf_report_folder_shares_add, 308
sf_report_folder_shares_list, 309
sf_report_folder_shares_update, 309
sf_report_folder_update, 312
sf_report_folders_list, 306
sf_reset_password, 227, 313
sf_retrieve, 227, 314
sf_retrieve_metadata, 315
sf_run_bulk_operation, 316
sf_run_bulk_query, 319
sf_run_report, 232, 243, 249, 256, 257, 260,
263, 284–286, 288, 298, 321, 337
sf_search, 325
sf_server_timestamp, 326
sf_set_dashboard_sticky_filter, 327
sf_set_password, 328
sf_submit_query_bulk, 328
sf_undelete, 330
sf_update, 226, 227, 331
sf_update_attachment, 235, 246, 258, 333
sf_update_dashboard, 334
sf_update_metadata, 204, 226, 335
sf_update_report, 232, 243, 249, 256, 257,
263, 284–286, 288, 298, 324, 336
sf_upload_complete_bulk, 338
sf_upsert, 226, 227, 339
sf_upsert_metadata, 226, 340
sf_user_info, 342

valid_metadata_list, 343