Custom Metadata Types Cheatsheet

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Overview

Your custom app configuration records can now be packaged and deployed as easily as any other custom metadata in your app with custom metadata types. You can package and install custom metadata types and records just as you do any metadata. You can migrate them between organizations using change sets and other Metadata API tools.

Add or Modify Custom Metadata Records

1. Search **Setup** for **Custom Metadata Types**.
2. Click **Manage Records** next to the type you want to work on.
3. Click **New** or **Edit**.
4. Fill out the fields and click **Save**.

Protect Custom Metadata Records

Protect records using the Protected Component checkbox in Setup, or the isProtected field in the Metadata API. If you release protected records in a managed package, access to them is limited in specific ways.

- Code that's in the same managed package as custom metadata records can read the records.
- Code that's in the same managed package as custom metadata types can read the records that belong to that type.
- Code that's in a managed package that doesn't contain either the type or the protected record can't read the protected records.
- Code that the subscriber creates and code that's in an unmanaged package can't read the protected records.
- The developer can modify protected records only with a package upgrade. The subscriber can't read or modify protected records. The developer name of a protected record can't be changed after release.

If you create a protected custom metadata record in your organization, then it's accessible only by your code, code from unmanaged packages, and code from the managed package that defines its type.

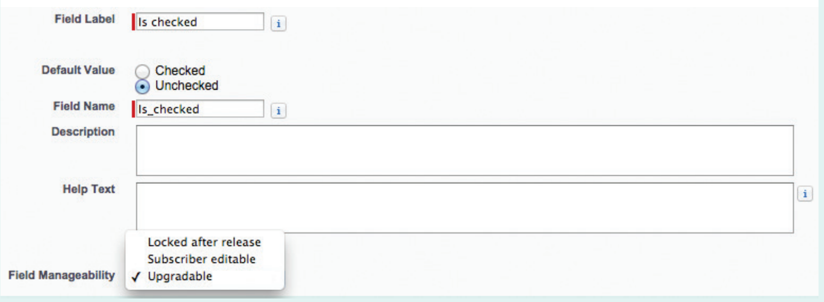
Create or Modify a Custom Metadata Type

You can create and modify custom metadata types that are public or haven't been released in a managed package.

1. Search **Setup** for **Custom Metadata Types**.
2. Click **New Custom Metadata Type** or **Edit**.
3. Fill out the standard fields
4. Add custom fields.

   Supported field types:

   Checkbox, Date, Date and Time, Email, Number, Percent, Phone, Text, Text Area, URL



Field Label	Is checked
Default Value	Checked [✓ Unchecked]
Field Name	Is_checked
Description	
Help Text	
Field Manageability	Locked after release / Subscriber editable / ✓ Upgradable

Delegate Field Management

When you create a type, decide who can change field values after deployment to a subscriber organization.

- Locked after release–For any record of the type, the value of the field is immutable after deployment, even on the developer organization where the record was created.
- Subscriber editable–Anyone with the correct permissions can change the value of the field at will. Any changes the developer deploys do not overwrite values in the subscriber's organization.
- Upgradable–The developer of a record can change the value of the field by releasing a new version of the custom metadata package. The subscriber can't change the value of the field.

You can also create custom metadata types using the Metadata API. For more information, see "Custom Metadata Types (CustomObject)" in the *Metadata API* Developer's Guide.

Protect Custom Metadata Types

You can protect types using the Visibility radio button in Setup or the Protected field in the Metadata API. Protected types provide the same access protection as protected records.

Tips:

- If you change a type from protected to public, its protected records remain protected and all other records become public.
- If you use Setup to create a new record on a protected type, the Protected Component checkbox is checked by default.
- Once a type is released as public, you can't convert it to protected. The subscriber can't create records of a protected type.

Supported SOQL

Custom metadata types support the following SOQL query syntax.

```
SELECT fieldList [...]
FROM objectType
  [USING SCOPE filterScope]
[WHERE conditionExpression]
[ORDER BY field {ASC|DESC} [NULLS {FIRST|LAST}] ]
[LIMIT limit] [OFFSET offset]
```

- The `all SOQL` can include only non-relationship fields.
- FROM can include only one object.You can use the following operators.
  - o IN and NOT IN
  - o =, >, >=, <, <=, and !=
  - o LIKE, including the % and _ wild cards
  - o AND
- You can use ORDER BY, ASC, and DESC with multiple fields.

Apex Examples

Declare a type in your namespace:
`MyCustomMetadataType__mdt custMeta;`

Declare a type in another namespace:
`their_ns__TheirCustomMetadataType__mdt custMeta;`

Get the names of all objects of a type:
`MyMdt__mdt[] allEntityNames = [select QualifiedApiName from MyMdt__mdt]`

For information about the Custom Metadata Type__mdt sObject, see Custom Metadata Type__mdt in the Object Reference for Salesforce and Force.com.

Limits

Description	Limit
SOQL queries per Apex transaction	Unlimited
Custom metadata per organization	10 MB
Custom metadata per certified managed package	10 MB
Fields per custom metadata type or record	100
Custom metadata types per organization	100
Characters per description field	1,000
Records returned per transaction	50,000
Custom metadata types in one call	200

Tips:

- Record size is based on the maximum field size of each field type, not the actual storage that's used in each field. Use the appropriate field type and length to avoid wasting empty space in records.
- Customer metadata records you install from managed packages don't count towards your limit.
- Custom metadata records you create do count towards your limit.

Additional Resources

Custom Metadata Types Implementation Guide – http://bit.ly/CustomMetadataTypes
Search for Custom Metadata Types on the Success community group
Blog posts at developer.salesforce.com

For other cheatsheets:
http://developer.salesforce.com/cheatsheets

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