

# Tutorial: Manage Document Versions in REST Services

This doc shows a series of JSON message samples to do versioning in [Documentum REST Services](#).

1. Assumed that you get a document resource.

```
GET http://rest-demo/dctm-rest/repositories/acme01/objects/090004d2800050df
```

```
Accept: application/vnd.emc.documentum+json
```

```
Authorization: Basic ZG1hZG1pbjpwYXNzd29yZA==
```

From the resource representation, you'll probably find a link relation "<http://identifiers.emc.com/linkrel/checkout>" which indicates that you have the versioning permission on this doc.

```
{
  "name": "object",
  "type": "dm_document",
  "definition": "http://rest-demo/dctm-rest/repositories/acme01/types/dm_document",
  "properties": {"r_object_id": "090004d2800050df"...},
  "links": [
    {"rel": "self"...},
    {"rel": "edit"...},
    {"rel": "http://identifiers.emc.com/linkrel/delete"...},
    {"rel": "canonical"...},
    {"rel": "http://identifiers.emc.com/linkrel/parent-links"...},
    {"rel": "parent"...},
    {"rel": "http://identifiers.emc.com/linkrel/cabinet"...},
    {"rel": "contents"...},
    {"rel": "http://identifiers.emc.com/linkrel/primary-content"...},
    {
      "rel": "http://identifiers.emc.com/linkrel/checkout",
      "href": "http://rest-demo/dctm-rest/repositories/acme01/objects/090004d2800050df/lock"
    },
    {"rel": "version-history"...},
    {"rel": "http://identifiers.emc.com/linkrel/current-version"...},
    {"rel": "http://identifiers.emc.com/linkrel/relations"...}
  ]
}
```

**permission aware checkout link relation**

## 2. Checkout the document.

Invoke a PUT method on the URI of the checkout link relation.

```
PUT http://rest-demo/dctm-rest/repositories/acme01/objects/090004d2800050df/lock
```

```
Accept: application/vnd.emc.documentum+json
```

```
Authorization: Basic ZG1hZG1pbjpwYXNzd29yZA==
```

You'll get a new lock resource response. Within the resource representation, there are several versioning related link relations.

```
{
  "name": "object",
  "type": "dm_document",
  "definition": "http://rest-demo/dctm-rest/repositories/acme01/types/dm_document",
  "properties": {"r_object_id": "090004d2800050df"...},
  "links": [
    {"rel": "self"...},
    {"rel": "edit"...},
    {"rel": "canonical"...},
    {"rel": "http://identifiers.emc.com/linkrel/parent-links"...},
    {"rel": "parent"...},
    {"rel": "http://identifiers.emc.com/linkrel/cabinet"...},
    {"rel": "contents"...},
    {"rel": "http://identifiers.emc.com/linkrel/primary-content"...},
    {
      "rel": "http://identifiers.emc.com/linkrel/checkin-next-major",
      "href": "http://rest-demo/dctm-rest/repositories/acme01/objects/090004d2800050df/versions?object-id=0"
    },
    {
      "rel": "http://identifiers.emc.com/linkrel/checkin-next-minor",
      "href": "http://rest-demo/dctm-rest/repositories/acme01/objects/090004d2800050df/versions?object-id=0"
    },
    {
      "rel": "http://identifiers.emc.com/linkrel/cancel-checkout",
      "href": "http://rest-demo/dctm-rest/repositories/acme01/objects/090004d2800050df/lock"
    },
    {"rel": "version-history"...},
    {"rel": "http://identifiers.emc.com/linkrel/current-version"...},
    {"rel": "http://identifiers.emc.com/linkrel/relations"...}
  ]
}
```

**permission aware links for cancel-checkout & checkin**

### 3. Cancel-checkout or Checkin

You could then either cancel-checkout the document.

```
DELETE http://rest-demo/dctm-rest/repositories/acme01/objects/090004d2800050df/lock
```

```
Authorization: Basic ZG1hZG1pbjpwYXNzd29yZA==
```

Or checkin a new version following the check in link relations. Content Server determines which next versions are available for the checkin of current version. For the initial version, you could check in as next minor version or as next major version. Here in this sample, we check in a new minor version.

```
POST http://rest-demo/dctm-rest/repositories/acme01/objects/090004d2800050df/versions?object-id=090004d2800050df&version-policy=next-minor
```

```
Accept: application/vnd.emc.documentum+json
```

```
Content-Type: application/vnd.emc.documentum+json
```

```
{ "properties":{"title": "updated spec"}}
```

The server returns you a new document resource. The link of the new resource can also be found in Location header.

```
HTTP 201 Created
```

```
Location: http://rest-demo/dctm-rest/repositories/acme01/objects/090004d28000da8e
```

```
Content-Type: application/vnd.emc.documentum+json;charset=UTF-8
```

```
Content-Length: 4352
```

#### 4. Checkout the NON-CURRENT version

If you navigate back to the initial version (v1.0), you could see that the link relation "<http://identifiers.emc.com/linkrel/checkout>" is presented again -- meaning that you are allowed to check it out. As an example, we'll check it out again.

```
PUT http://rest-demo/dctm-rest/repositories/acme01/
objects/090004d2800050df/lock
```

```
Accept: application/vnd.emc.documentum+json
```

```
Authorization: Basic ZG1hZG1pbjpwYXNzd29yZA==
```

Now from the response, the link relations differ. A next major or branch version can be checkin in, which is determined by Content Server.

```
{
  "name": "object",
  "type": "dm_document",
  "definition": "http://core-rs-demo.lss.emc.com:8080/dctm-rest/repositories/acme01/types/dm_docu",
  "properties": {"r_object_id": "090004d2800050df"...}, "links": [
    {"rel": "self"...},
    {"rel": "edit"...},
    {"rel": "canonical"...},
    {"rel": "http://identifiers.emc.com/linkrel/parent-links"...},
    {"rel": "parent"...},
    {"rel": "http://identifiers.emc.com/linkrel/cabinet"...},
    {"rel": "contents"...},
    {"rel": "http://identifiers.emc.com/linkrel/primary-content"...},
    {
      "rel": "http://identifiers.emc.com/linkrel/checkin-next-major",
      "href": "http://rest-demo/dctm-rest/repositories/acme01/objects/090004d2800050df/versions?o",
    },
    {
      can be checked in as next major or branch
      "rel": "http://identifiers.emc.com/linkrel/checkin-branch",
      "href": "http://rest-demo/dctm-rest/repositories/acme01/objects/090004d2800050df/versions?o",
    },
    {
      "rel": "http://identifiers.emc.com/linkrel/cancel-checkout",
      "href": "http://rest-demo/dctm-rest/repositories/acme01/objects/090004d2800050df/lock"
    },
    {"rel": "version-history"...},
    {"rel": "http://identifiers.emc.com/linkrel/current-version"...},
    {"rel": "http://identifiers.emc.com/linkrel/relations"...}
  ]
}
```

## 5. Checkin Both Properties And Content

In last checkin sample, we checked in the document as minor version, and we only updated the properties. In this sample, we will check in as a branch version, and additionally, we will checkin both properties and the new content in one request, using the HTTP multipart support of the REST services.

```
POST http://rest-demo/dctm-rest/repositories/acme01/
objects/090004d2800050df/versions?object-id=090004d2800050df&version-
policy=branch-version
```

```
Accept: application/vnd.emc.documentum+json
```

```
Content-Type: multipart/form-data;
boundary=vFKDeJ2jOu0ZQqKu9BGfHj9otiMJq44EwXfiV
```

```
Authorization: Basic ZG1hZG1pbjpwYXNzd29yZA==
```

```
--vFKDeJ2jOu0ZQqKu9BGfHj9otiMJq44EwXfiV
```

```
Content-Disposition: form-data; name="object"
```

```
Content-Type: application/vnd.emc.documentum+json; charset=UTF-8
```

```
{"properties":{"title": "updated spec with content"}}
```

```
--vFKDeJ2jOu0ZQqKu9BGfHj9otiMJq44EwXfiV
```

```
Content-Disposition: form-data; name="content"
```

```
Content-Type: plain/text; charset=UTF-8
```

```
This is a primary content sample with plain text!
```

```
--vFKDeJ2jOu0ZQqKu9BGfHj9otiMJq44EwXfiV--
```

## 6. Navigate version tree

On any document resource in a version tree, there are several link relations for the navigation of the version tree.

```
GET http://rest-demo/dctm-rest/repositories/acme01/objects/090004d28000da9d
```

```
Accept: application/vnd.emc.documentum+json
```

```
Authorization: Basic ZG1hZG1pbjpwYXNzd29yZA==
```

From the response, there will be link relations "version-history", "<http://identifiers.emc.com/linkrel/current-version>" and "predecessor-version".

```
{
  "name": "object",
  "type": "dm_document",
  "definition": "http://rest-demo/dctm-rest/repositories/acme01/types/dm_document",
  "properties": { "r_object_id": "090004d28000da9d"..., "links": [
    { "rel": "self"...,
    { "rel": "edit"...,
    { "rel": "http://identifiers.emc.com/linkrel/delete"...,
    { "rel": "canonical"...,
    { "rel": "http://identifiers.emc.com/linkrel/parent-links"...,
    { "rel": "parent"...,
    { "rel": "http://identifiers.emc.com/linkrel/cabinet"...,
    { "rel": "contents"...,
    { "rel": "http://identifiers.emc.com/linkrel/primary-content"...,
    { "rel": "http://identifiers.emc.com/linkrel/checkout"...,
    {
      "rel": "version-history",
      "href": "http://rest-demo/dctm-rest/repositories/acme01/objects/090004d2800050df/versions"
    },
    {
      "rel": "http://identifiers.emc.com/linkrel/current-version",
      "href": "http://rest-demo/dctm-rest/repositories/acme01/objects/090004d2800050df/versions/c
    },
    {
      "rel": "predecessor-version",
      "href": "http://rest-demo/dctm-rest/repositories/acme01/objects/090004d2800050df"
    },
    { "rel": "http://identifiers.emc.com/linkrel/relations"...,
  ]
}
```

The version-history lists all revisions from the version tree in a flatten feed.

GET <http://rest-demo/dctm-rest/repositories/acme01/objects/090004d2800050df/versions>

Accept: application/vnd.emc.documentum+json

Authorization: Basic ZG1hZG1pbjpwYXNzd29yZA==

```

{
  "id": "http://rest-demo/dctm-rest/repositories/acme01/objects/090004d2800050df/versions",
  "title": "All versions of chronicle object 090004d2800050df",
  "updated": "2014-02-17T11:38:42.948+08:00",
  "author": [
    {
      "name": "EMC Documentum"
    }
  ],
  "links": [
    {
      "rel": "self",
      "href": "rest-demo/dctm-rest/repositories/acme01/objects/090004d2800050df/versions"
    }
  ],
  "entries": [
    {
      {
        "id": "rest-demo/dctm-rest/repositories/acme01/objects/090004d28000da9d",
        "title": "testOverview.ppt",
        "updated": "2014-02-17T10:46:39.000+08:00",
        "summary": "dm_document 090004d28000da9d",
        "author": [
          {
            "name": "dave",
            "uri": "rest-demo/dctm-rest/repositories/acme01/users/dave"
          }
        ],
        "content": {
          "content-type": "application/json",
          "src": "http://rest-demo/dctm-rest/repositories/acme01/objects/090004d28000da9d"
        },
        "links": [
          {
            "rel": "edit",
            "href": "http://rest-demo/dctm-rest/repositories/acme01/objects/090004d28000da9d"
          }
        ]
      },
      {
        "id": "http://rest-demo/dctm-rest/repositories/acme01/objects/090004d28000da8e"...},
      {
        "id": "http://rest-demo/dctm-rest/repositories/acme01/objects/090004d2800050df"...}
    ]
  ]
}

```

**non-inline entry for revision**

To get the full representations of individual documents in a feed, you could append a URI query parameter "inline=true" on the version-history resource URI.

[Learn more about Documentum REST Services >>](#)



