



# Object expiry

Using the Swift API, you have the option for objects to automatically be deleted, after they have passed an expiry threshold.

## Prerequisites

In order to manage object expiry, be sure that you have **installed and configured** the `swift` command-line interface (CLI). There is presently no way to set object expiry with the `openstack` CLI.

## Auto-deletion at a fixed date

In order for an object to be automatically deleted at a certain date, you must first convert that date to a POSIX timestamp. You may do so with the `date` command. For example, to retrieve the POSIX timestamp for February 29, 2024, at 0000 UTC, use this command:

```
$ TZ=Etc/UTC date -d '2024-02-29' +%s  
1709164800
```

You can then set the `X-Delete-At` header on an object, so that it is automatically deleted at that time:

```
$ swift post -H "X-Delete-At: 1709164800" private-container testobj.txt
```

Then, you can read back the header with `swift stat` :

```
$ swift stat private-container testobj.txt  
  Account: AUTH_30a7768a0ffc40359d6110f21a6e7d88  
  Container: private-container  
  Object: testobj.txt  
  Content Type: binary/octet-stream  
  Content Length: 12  
  Last Modified: Mon, 05 Dec 2022 14:09:02 GMT  
    ETag: 6f5902ac237024bdd0c176cb93063dc4  
  Accept-Ranges: bytes  
  X-Timestamp: 1670249342.53870  
  X-Delete-At: 1709164800  
  X-Trans-Id: tx00000646596cd018a2d7b-00638dfb91-300de11-default  
  X-Openstack-Request-Id: tx00000646596cd018a2d7b-00638dfb91-300de11-default
```

## Auto-deletion after a time period

Instead of giving an absolute time with `X-Delete-At`, you can also use `X-Delete-After` (in seconds), so that the object is automatically deleted after that timespan. This example uses 600 seconds or 10 minutes:

```
$ swift post -H "X-Delete-After: 600" private-container testobj.txt
```

The Swift API then converts this into an `X-Delete-At` header, adding the specified time span to the date the request is received (indicated by the `X-Timestamp` header).

You can then read back the object metadata. Observe that in this example, the difference between the `X-Timestamp` and `X-Delete-At` headers is 600 seconds:

```
$ swift stat private-container testobj.txt
  Account: AUTH_30a7768a0ffc40359d6110f21a6e7d88
  Container: private-container
  Object: testobj.txt
  Content Type: binary/octet-stream
  Content Length: 12
  Last Modified: Mon, 05 Dec 2022 14:09:55 GMT
    ETag: 6f5902ac237024bdd0c176cb93063dc4
  Accept-Ranges: bytes
  X-Timestamp: 1670249395.20576
  X-Delete-At: 1670249995
  X-Trans-Id: tx0000065937c08551ba2be-00638dfbb6-301ddeb-default
  X-Openstack-Request-Id: tx0000065937c08551ba2be-00638dfbb6-301ddeb-default
```

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