Use Case: Versioning

**Goal:** Enable basic version control to improve accountability.

**Actors:** user (human or system), system (system)

**Summary:**
Data is stored in a repository and receives a PID. At a later point in time, a new version of the same data is available. When it is stored in the repository, questions are what to do with the old copy and its PID, whether to assign a new PID and if so, how to manage/interlink the two PIDs. PID types may help to establish the link between old and new version PIDs or specify which policies apply in this process.

**Subcase 1) Old data “A” must be replaced by new data “B”**

**Precondition:** A PID has been assigned to old data A.

**Main flow:**
1. The user submits B and the PID to A to the system, requesting a version update
2. The system assigns a PID to B and stores B
3. The system arranges the PIDs of A and B in a way that enables the other use cases (e.g. via the PID record – or external metadata)
4. Optional: The system deletes A and marks the PID to A with a fate flag (“data has been deleted because a new version is available”)
5. The system replies to the user with the new PID to B

**Postcondition:** PIDs for A and B exist. B is kept. Optionally, A is kept.

**Subcase 2) User access to latest version**

**Precondition:** A consecutive series of data version has been submitted (using subcase 1) with the newest version being object “Z”.

**Main flow:**
1. User submits PID to A
2. System accesses PID record of A and determines the latest PID to Z
3. System responds to user with Z and the PID of Z

**Subcase 3) User access to specific version**

**Precondition:** same as for subcase 2)

**Main flow:**
1. User submits PID to A
2. System accesses PID record of A. Alternatives may happen:
   1. If the object A is not available, the system replies to the user with an information on the fate of A. Optionally, the PID for B or Z is included.
   2. If the object A is available, the system replies to the user with A. Optionally, the PID of a predecessor version may be returned to enable back tracing.
3. Optional: If a newer version is available, the system may enquire from the user whether the newer version should be returned. In that case, continue with
subcase 2).