Sequences

This feature is available in midPoint 3.3 and later.

Sequences are persistent objects in midPoint repository that maintain counters. They are mostly equivalent in functionality to database auto-increment columns. The sequences can be used to assign unique identifiers to large number of midPoint objects in a very efficient and reliable fashion. The sequences are excellent tool for automatic assignment of UNIX uid and gid numbers, persistent user identifiers, etc.

The sequence in it self is a very simple object:

```
<sequence>
    <name>Unix UID numbers</name>
    <counter>1001</counter>
    <maxUnusedValues>10</maxUnusedValues>
</sequence>
```

The sequence remembers just one important value: the counter. The counter value is assigned to the next object, then the counter value is (atomically) incremented. There are also other settings such as the maximum counter value, settings that influence the use of reclaimed values and so on. This may seem simple, but the real power in using sequences are in combination with Mappings and Expressions. The sequence can easily be used in a mapping:

```
            <mapping>
                <name>sequenceUID</name>
                <strength>weak</strength>
                <expression>
                    <sequentialValue>
                        <sequenceRef oid="7d4acb8c-65e3-11e5-9ef4-6382ba96fe6c"/>
                    </sequentialValue>
                </expression>
                <target>
                    <path>extension/uidNumber</path>
                </target>
            </mapping>
```

This mapping will take a counter from the sequence and place it in the target property. The mapping will also make sure that the value is returned to the sequence for reclamation in case that the processing fails. See Using Sequences page for more details.

See Also

- Using Sequences
- Unix Story Test