Versioning guidelines

Last updated by | Nils Johannsen | Jul 5, 2024 at 8:37 AM GMT+2

TwinCAT uses **Semantic Versioning**, following Semantic Versioning 2.0.0.

Versioning: <major>.<minor>.<patch>

- Each repository is versioned independently from each other
- Every repository starts after initial review with version `1.0.0` (Tag: "1.0.0")
- With every change in the `main` branch, the version of a repository shall be increased
- Which number of the version must be increased depends on the changes (see `Changing Rules*)
- Optionally a suffix could be added: *<major>.<minor>.<patch>.<suffix>*

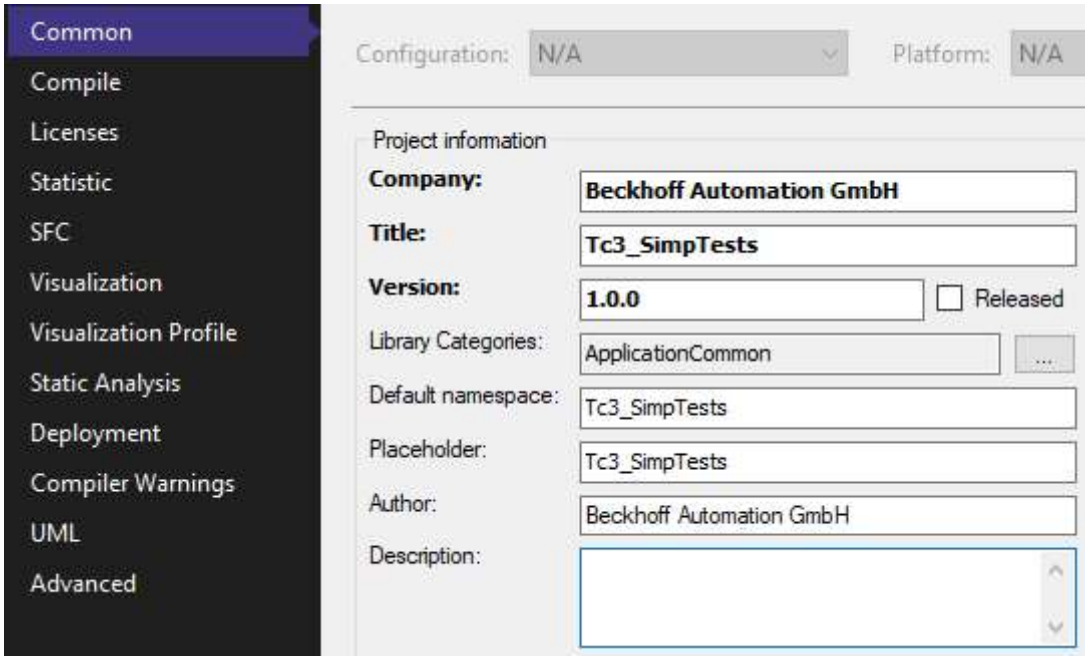
Changing Rules

- Major is incremented when the new version is incompatible to the prior version of the component
- Minor is incremented when the new version includes an extension of functionality
- Patch is incremented when the new version includes fixes only
- Suffix is optionally incremented for multiple builds or development states (should be 0 for release versions)

PLC Libraries

For every provided PLC Library, the project information should be filled out with

- Company and Author are "Beckhoff Automation GmbH"
- Title, Namespace and Placeholder are equal to the name of the library
- Library Categories should be "ApplicationCommon" (see `ApplicationCommon.libcat.xml`)
- Library Version as defined above



ApplicationCommon.libcat.xml

Download the full ApplicationCommon.libcat.xml here

```
<?xml version='1.0' encoding='UTF-8'?>
<LibraryCategories xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:noNamespaceSchemaLocation="Librar
        <LibraryCategory>
                <Id>460ee22e-7736-4c09-a31b-671fe22861fa</Id>
                <Version>1.0.0.0</Version>
                <DefaultName>ApplicationCommon</DefaultName>
        </LibraryCategory>
<!-- ... -->
```

TMC Drivers

For every provided TMC driver, the vendor and group should be filled out with

- Vendor/Name "Beckhoff Automation GmbH"
- Group/Name "AppCom" with Group/DisplayName of "ApplicationCommon"
- SortOrder defined as 10000
- Every Module should be added to the Group "AppCom"

ApplicationCommon.tmc

```
<?xml version="1.0" encoding="utf-8"?>
<TcModuleClass xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:noNamespaceSchemaLocation="http://www
        <Vendor>
                <Name>Beckhoff Automation GmbH</Name>
        </Vendor>
        <Groups>
                <Group SortOrder="10000">
                        <Name>AppCom</Name>
                        <DisplayName>ApplicationCommon</DisplayName>
                </Group>
        </Groups>
        <Modules>
                <Module GUID="{d05c9e71-ed8e-4ece-8ab0-71151c4175f4}" Group="AppCom">
                        <Name>TcModuleWithMultiContext</Name>
                        <CLSID ClassFactory="TcModuleWithMultiContext">{d05c9e71-ed8e-4ece-8ab0-71151c4175f4}<
<!-- ... --->
```