**Automation Test Plan.**

The Test Plan describes the approach to be used by the CATIA QA team to plan, organize and perform automation testing of the entire system CATIA 3DEXPERIENCE+PTC Windchill.

**Scope**

* Smoke tests. They should be automated first because of requirement to run smock tests on each build.
* Regression test cases (~350 test cases what is about 85% of the regression test pool).

**What will not be automated:**

* Remove from ENOVIA Cache of particular objects (very difficult to automate, much easier to test manually)
* Windchill menu UI integrated into CATIA 3DEXPERIENCE
* Busy cursor test cases
* Theorem test cases (run rare because Theorem releases only twice per year).
* New feature test cases will not be automated right after implementation but only after several manual executions (new feature testing, system-integration testing)

**Test Strategy**

* Use CATIA V5+Windchill automation process as a prototype. Find the scheme of automation processes in the [attachment](Automation_Test_Plan.docx).
* Automate the scope in the following order:
* Smoke Check
* Tests which can be automated using Java Script Bridge Call and CC Call tool. They are faster both for creation and replaying.
* Hybrid tests
* Create CATIA macros for automating native CATIA actions.

**Resources**

2 QAs will be involved in automated testing.

**Responsibilities:**

* First QA :

1. automation environment set up
2. creation of automated test cases
3. run of automation session when it is required (usually bi-weekly)
4. analysis of failed tests
5. uploading of results to Integrity system

* Second QA :

1. creation of automated test cases
2. analysis of failed tests

**Tools**

* ARTSPrius
* ARTSClient
* Java Script Bridge Call (JSBC)
* CC
* Selenium
* Jenkins
* Integrity (Bug Tracking System)

**Schedules**

The plan is to automate the scope during two releases (12 months).

* First release – 35-40% (because some changes are required from CATIA adapter side and it will take time while developers implement them. A lot of blocking issue might appear in the beginning of the automation)
* Second release – 60-65%

**Environment**

* OS – Win 10
* Embedded browsers – IE, Chromium
* Standalone browsers – IE, Mozilla Firefox, Chrome
* CATIA 3DEXPERIENCE – 2017x

**Risks**

* ROI will not be positive on first stages of automation testing. It will give positive result if the project keeps going for a few years.
* 3d party dependency. Other PTC teams are involved in automation process (responsible for JSBC and CC tools). In case of blocking issue, it might take some time to get a fix.
* One of QA hasn’t work with CATIA 3DEXPERIENCE before. The customer doesn’t give enough time for training.
* The customer often moves QAs from automation to manual testing.

**Test data**

Datasets are created in CATIA 3DEXPERIENCE (products, 3D parts, Drawings with all supported types of external links). Each automated test cases should contain a folder with its own dataset.

**Reports/results**

Result report is generated as an xml file, then it is uploaded to Integrity

**Attachment**