

— ATENA — EGS-CC-compatible automation system for AIT/AIV and Operations based on OTX

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Presentation plan

1. Overview of the project
2. Structure of ATENA
 - Software design overview
 - Software dynamic structure
 - Lifecycle of the components
 - System sequences
3. What we achieved?
4. Demo scenario
 - Robot scenario
 - MCM scenario
5. Improvements
6. Next stage tasks





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Overview of the project

General overview

- In 9 months
- Develop user friendly UI
- Migrate most of the former ATENA features into new web-based design
- Re-use ATENA OTX Engine
- Perform proof of concept integration with MCM Access API (EGS-CC)

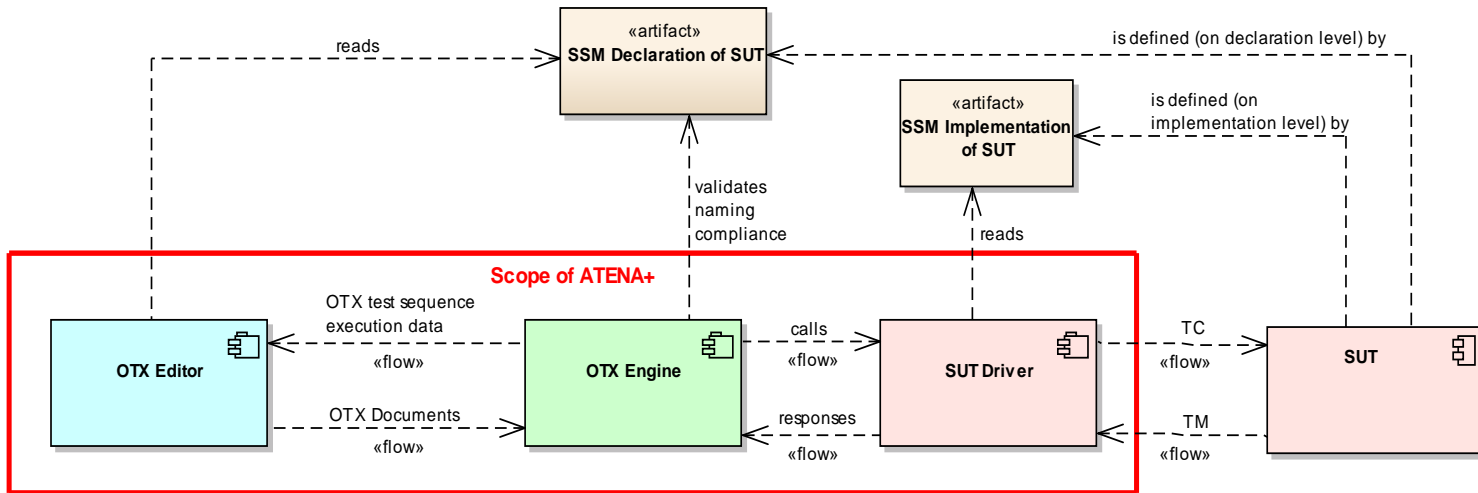




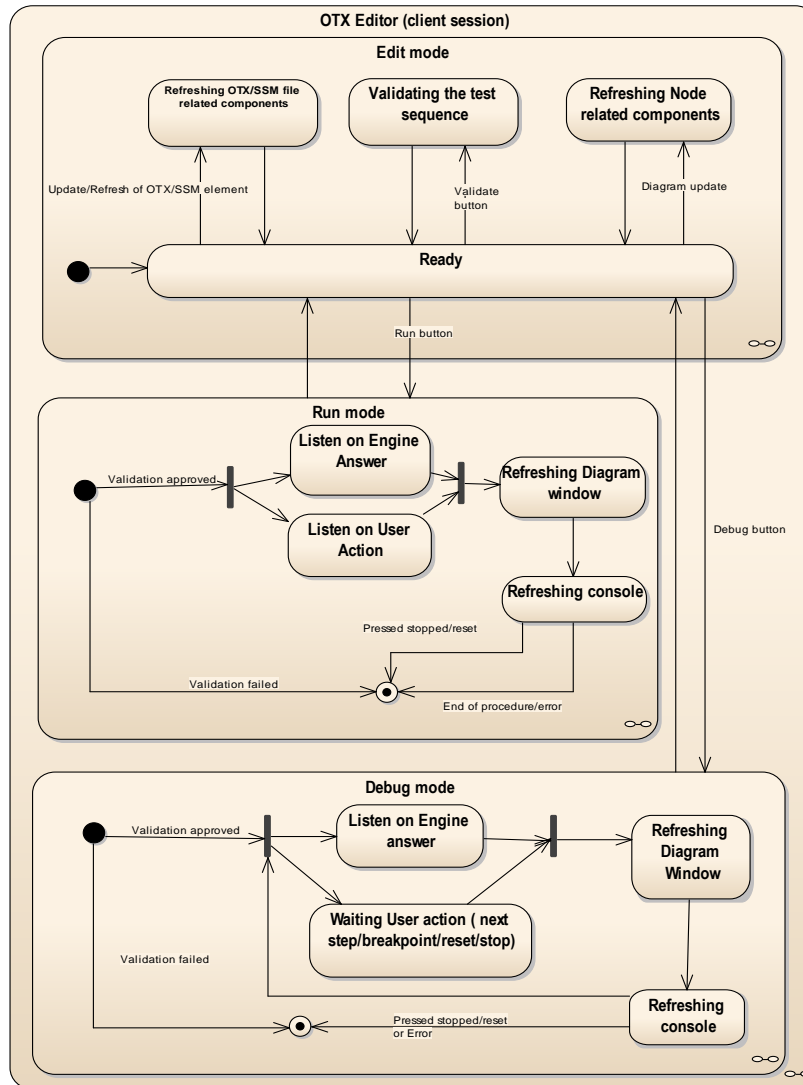
2

Structure of ATENA

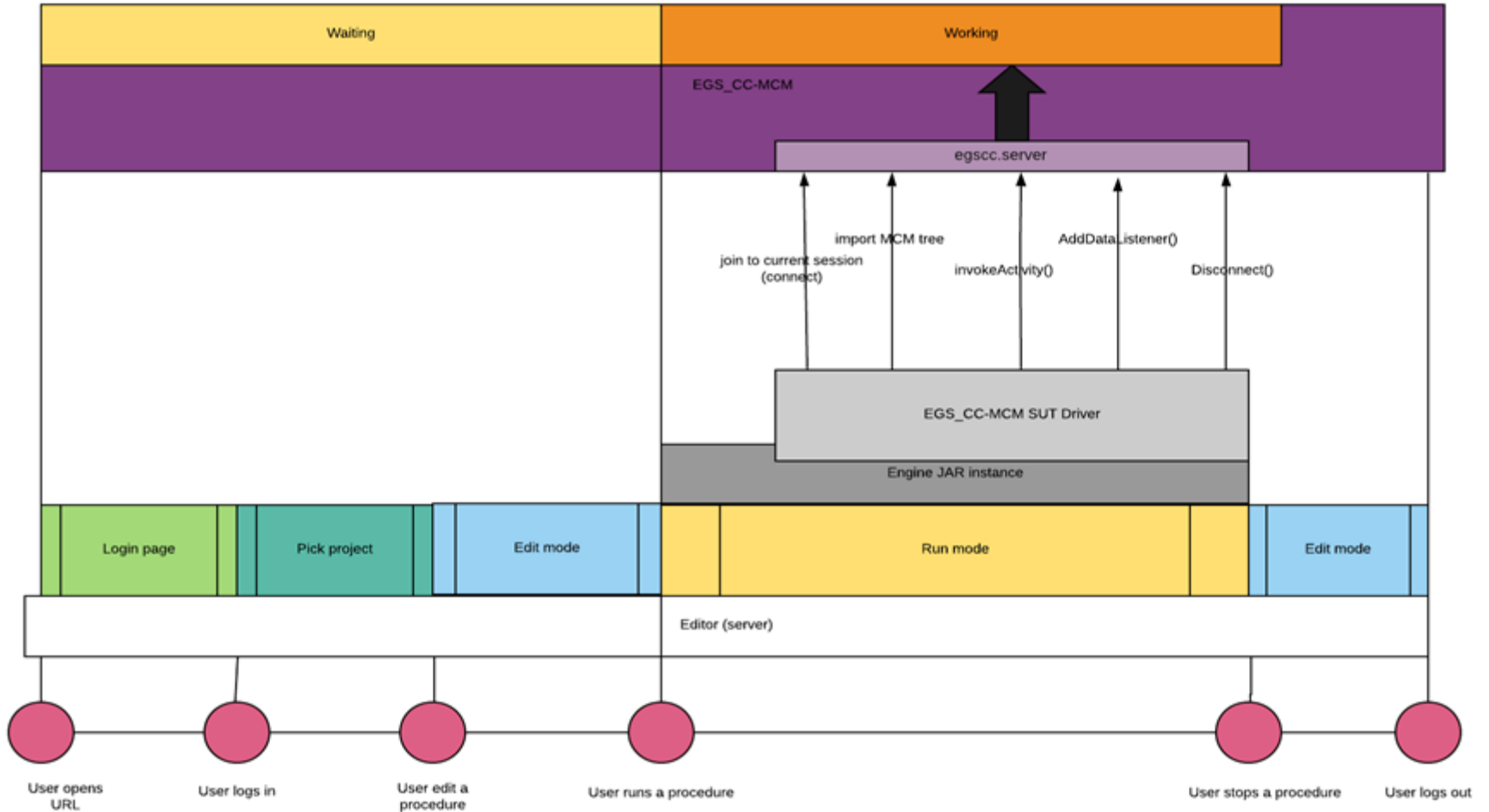
a) Software design overview



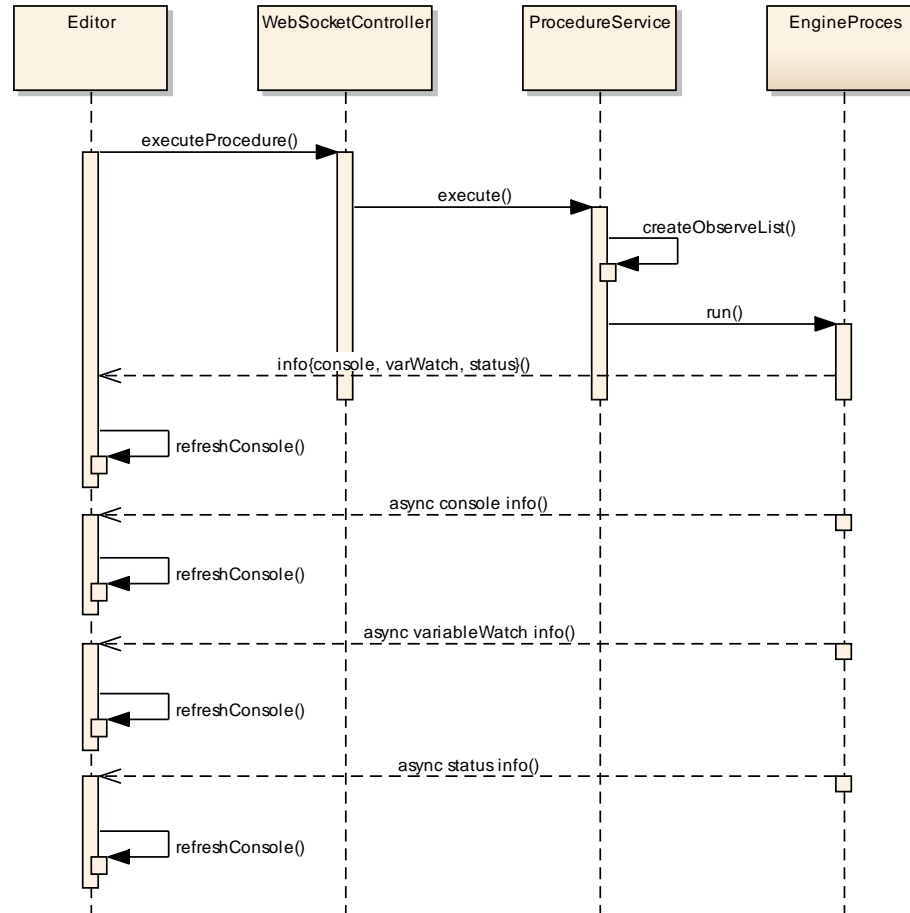
a) Software dynamic structure



c) Lifecycle of the components



d) System sequences





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What we achieved?

What we have achieved?

- Develop first version of Web-based ATENA UI
 - User authentication
 - Project management
 - OTX diagram design
 - Outline tree of OTX file
 - User-friendly way of procedure creation
 - **Run, debug and validation modes**
 - **Console section (logs, element specification, SUT status, variable watch)**
 - **OTX files import / export / creation / modification**
- Integration with EGSCC-MCM





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Demo scenario

Robot scenario

Presented test sequence:

- User tests a robot
- What distance it driven during test sequence?
- Does it move?
- Does it rotate?
- Let's make 2 procedures: goRobot and main() – that will Call procedure goRobot
- Run it!



MCM scenario

Presented functionalities:

- Creating a Project
- Importing an OTX file
- Parse MCM tree on SSM document
- Running & debugging a procedure
- Joining existing session





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Improvements

We will fix it, don't worry

- Implementation of missing interface elements
- Visible SUT Status
- Support for all icons and tooltips
- Validation: to distinguish warnings & errors
- Debug visualization & bug fixing
- AddReportingDataListener for EGSCC-MCM
- Error messages





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Next stage tasks

Next stage tasks

Parser OTX -> pseudocode
Ability to display OTX structure
in the form of pseudocode

Test report issue:

- Structure of test report
- Logs and information included
- Export to the file / DB
- Succeeded / failed (criteria of acceptance)
- SSM, SUT, OTX versions

Visual OTX term editor (upgrade)



Next stage tasks

Versioning of:

- SSM documents
- OTX documents
- Test reports
- SUT status assigned to run procedure
- Requirements

SSM file issues:

- Creation & visualization
- Informing about changes

Types of Interfaces

- Architect (Edit, debug, run)
- Tester (Run)



Next stage tasks

Communication with EGSCC-MCM

- Problem with activity parameters
- Getting data from CDM
- Executing of EAPL procedures
- Parsing EAPL -> OTX + information about code that was not readable

Refactoring and code maintenance

- Update of libraries
- Upgrade to Java 11
- Vulnerability check
- Unit tests
- HTTPS support



Next stage tasks

Requirements

- Mapping to :
 - OTX file?
 - Procedure?
 - Diagram element?
- Import of requirements:
 - CSV?
 - IBM DOORS?

SUT Status upgrade

- What is SUT Status?
 - Configuration of device
 - Connection status
- What contains SUT Status?
 - Structure of device + dynamic status
 - Parameters
 - Reporting data dynamic info
 - Recognize type of device





— Thank you for your attention

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