



the IT architects

Simulator Development Consolidation: Library of Models (LoM)

SESP 2012: Simulation and
EGSE facilities for Space
programmes
ESTEC - Noordwijk

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25th - 27th September 2012

- Part of Simulation Development Environment Consolidation : SimSDE
- GFC8 Project
- Designed to work alongside UMF2

“The LoM library/server based repository aims to make it easier to get an overview of existing simulator models and to ease sharing of new models”

The key features of the LoM include

- Fostering of a shared / distributed simulation development
- State-of-the-art centralised server-based repository approach
- Web based portal combined with library to allow different access models
- Modular deployment approach (via UMF solutions/projects concept)
- Full binary deployment of released components or sets of released components
- Dependency management between UMF solutions/projects
- License and user management

Repository Managers are standard in modern software development.

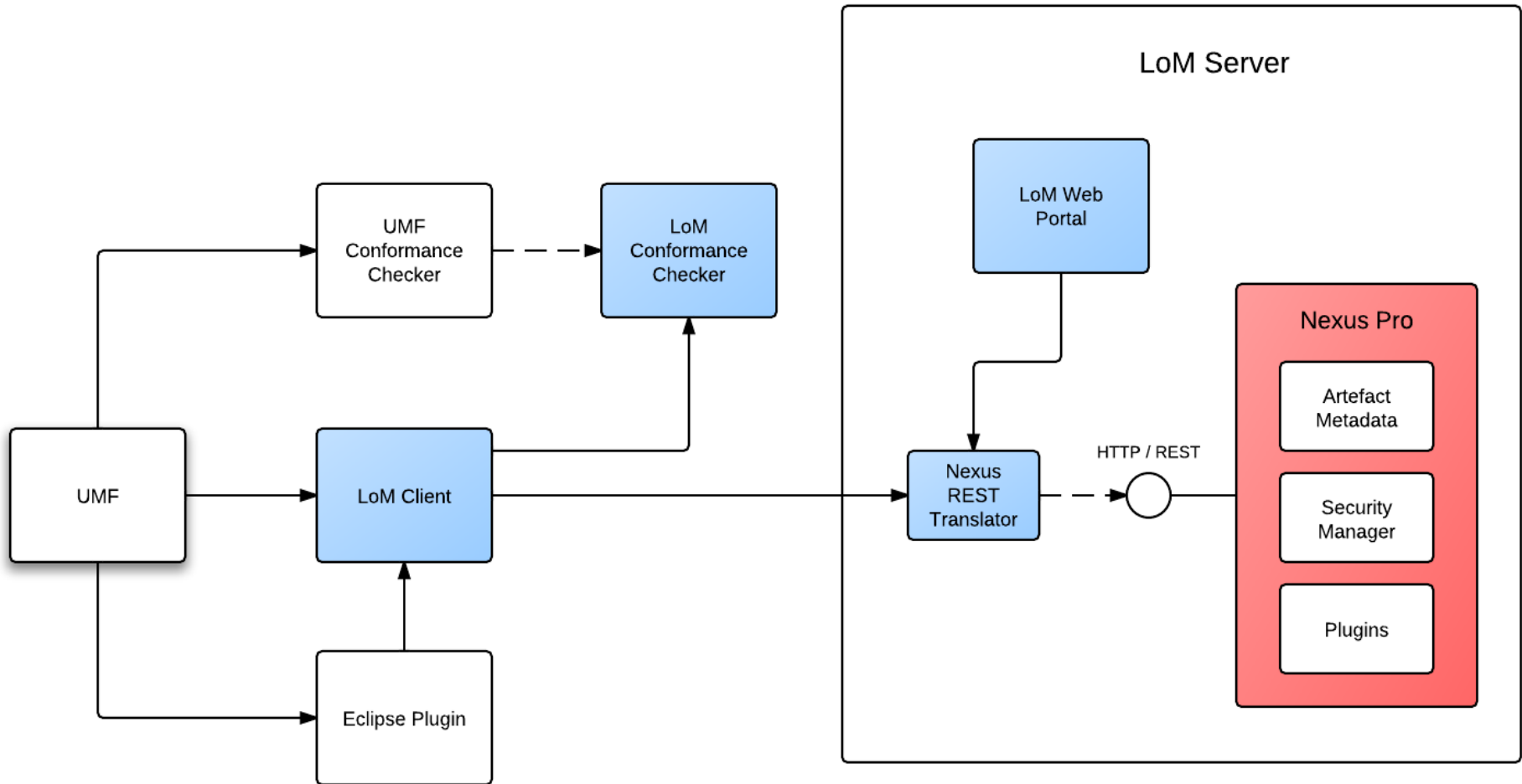
They

- Provide an organisation with control over what artefacts are available to both the development and operations teams.
- Facilitate the access to all types of artefacts (sources, binaries, documentation, etc.), enabling greater collaboration between development teams and wider distribution/reuse of software/components.
- Allow the definition of different repositories to distribute artefact types as required.

We decided to base the LoM server on standard repository manager software in order to.

- Reduce the cost of development.
- Provide a rich feature set that will grow as the features of repository managers grow.
- To facilitate access from different types of client

We chose Sonatype Nexus as it is the most widely used product, but the LoM can be easily migrated to other managers



Firefox

Artifact List

Welcome paul (sign out) **lom-portal v1.0**
Change Password

Company: The Server Labs
Licenses: [Generic]

Generic Reusable Mission Administration

Generic

Advanced search

Show: Solution Project All

Name	Ver.	Type	Projects	Dependencies	Supercedes	Source	Binaries	Changed	Uploaded
esa.genm	5.0	solution	<ul style="list-style-type: none"> esa.genm:esa.genm.simpack.common esa.genm:esa.genm.services.gcons:5 esa.genm:esa.genm.services.simon:5 esa.genm:esa.genm.sense:5.0 esa.genm:esa.genm.simpack.scosmib esa.genm:esa.genm.simpack.tdbed:5.0 		esa:genm:1.9	esa.genm-5.0-source.zip (9,189 KB)	esa.genm-5.0-windows-x86.zip (43 KB)	08/22/12 13:03	08/22/12 13:03
esa.refa	2.0	solution	<ul style="list-style-type: none"> esa.refa:esa.refa.rcs:2.0 esa.refa:esa.refa.tcs:2.0 esa.refa:esa.refa.aocs:2.0 esa.refa:esa.refa.datalinks:2.0 esa.refa:esa.refa.dhs:2.0 esa.refa:esa.refa.electronics:2.0 	esa:esa.genm:5.0	esa:refa:1.9	esa.refa-2.0-source.zip (2,157 KB)	esa.refa-2.0-windows-x86.zip (5 KB)	08/22/12 13:08	08/22/12 13:08
esa.refasim	2.0	solution	<ul style="list-style-type: none"> esa.refasim:esa.refasim.tcs:2.0 esa.refasim:esa.refasim.eps:2.0 esa.refasim:esa.refasim.rcs:2.0 esa.refasim:esa.refasim.ground:2.0 esa.refasim:esa.refasim.utilities:2.0 esa.refasim:esa.refasim.emulator:2.0 	esa:esa.refa:2.0	esa:esa.refasim:1.9	esa.refasim-2.0-source.zip (2,800 KB)	esa.refasim-2.0-windows-x86.zip (4 KB)	08/22/12 13:40	08/22/12 13:40
esa.genm.common	5.0	project				esa.genm.common-5.0-source.zip (1,003 KB)		09/04/12 11:18	09/04/12 11:18
esa.genm.generic	5.0	project				esa.genm.generic-5.0-source.zip (836 KB)		08/22/12 13:04	08/22/12 13:04
esa.genm.pem	5.0	project				esa.genm.pem-5.0-source.zip (708 KB)		08/22/12 13:04	08/22/12 13:04
esa.genm.sense	5.0	project				esa.genm.sense-5.0-source.zip (441 KB)		08/22/12 13:04	08/22/12 13:04
esa.genm.services.common	5.0	project				esa.genm.services.common-5.0-source.zip (187 KB)		08/22/12 13:05	08/22/12 13:05
esa.genm.services.gcons	5.0	project				esa.genm.services.gcons-5.0-source.zip (405 KB)		08/22/12 13:05	08/22/12 13:05
esa.genm.services.gcross	5.0	project				esa.genm.services.gcross-5.0-source.zip (124 KB)		09/04/12 10:48	09/04/12 10:48

1 2 3 4 5 Next

Deploy Artifact

ec2-46-137-168-85.eu-west-1.compute.amazonaws.com:8080/LoMPortal/artifact/resolve?uniqueId=esa.genm:esa.genm.services.simon:5.0

Firefox

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esa.refa	2.0	solution	<ul style="list-style-type: none"> esa.refa:esa.refa.rcs:2.0 esa.refa:esa.refa.tcs:2.0 esa.refa:esa.refa.aocs:2.0 esa.refa:esa.refa.datalinks:2.0 esa.refa:esa.refa.dhs:2.0 esa.refa:esa.refa.electronics:2.0 	esa:esa.genm:5.0	esa:refa:1.9	esa.refa-2.0-source.zip (2,157 KB)	esa.refa-2.0-windows-x86.zip (5 KB)	08/22/12 13:08	08/22/12 13:08
esa.refasim	2.0	solution	<ul style="list-style-type: none"> esa.refasim:esa.refasim.tcs:2.0 esa.refasim:esa.refasim.eps:2.0 esa.refasim:esa.refasim.rcs:2.0 esa.refasim:esa.refasim.ground:2.0 esa.refasim:esa.refasim.utilities:2.0 esa.refasim:esa.refasim.emulator:2.0 	esa:esa.refa:2.0	esa:esa.refasim:1.9	esa.refasim-2.0-source.zip (2,800 KB)	esa.refasim-2.0-windows-x86.zip (4 KB)	08/22/12 13:40	08/22/12 13:40
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esa.genm.services.common	5.0	project				esa.genm.services.common-5.0-source.zip (187 KB)		08/22/12 13:05	08/22/12 13:05
esa.genm.services.gcons	5.0	project				esa.genm.services.gcons-5.0-source.zip (405 KB)		08/22/12 13:05	08/22/12 13:05
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Deploy Artifact

ec2-46-137-168-85.eu-west-1.compute.amazonaws.com:8080/LoMPortal/artifact/resolve?uniqueId=esa.genm:esa.genm.services.simon:5.0

Firefox

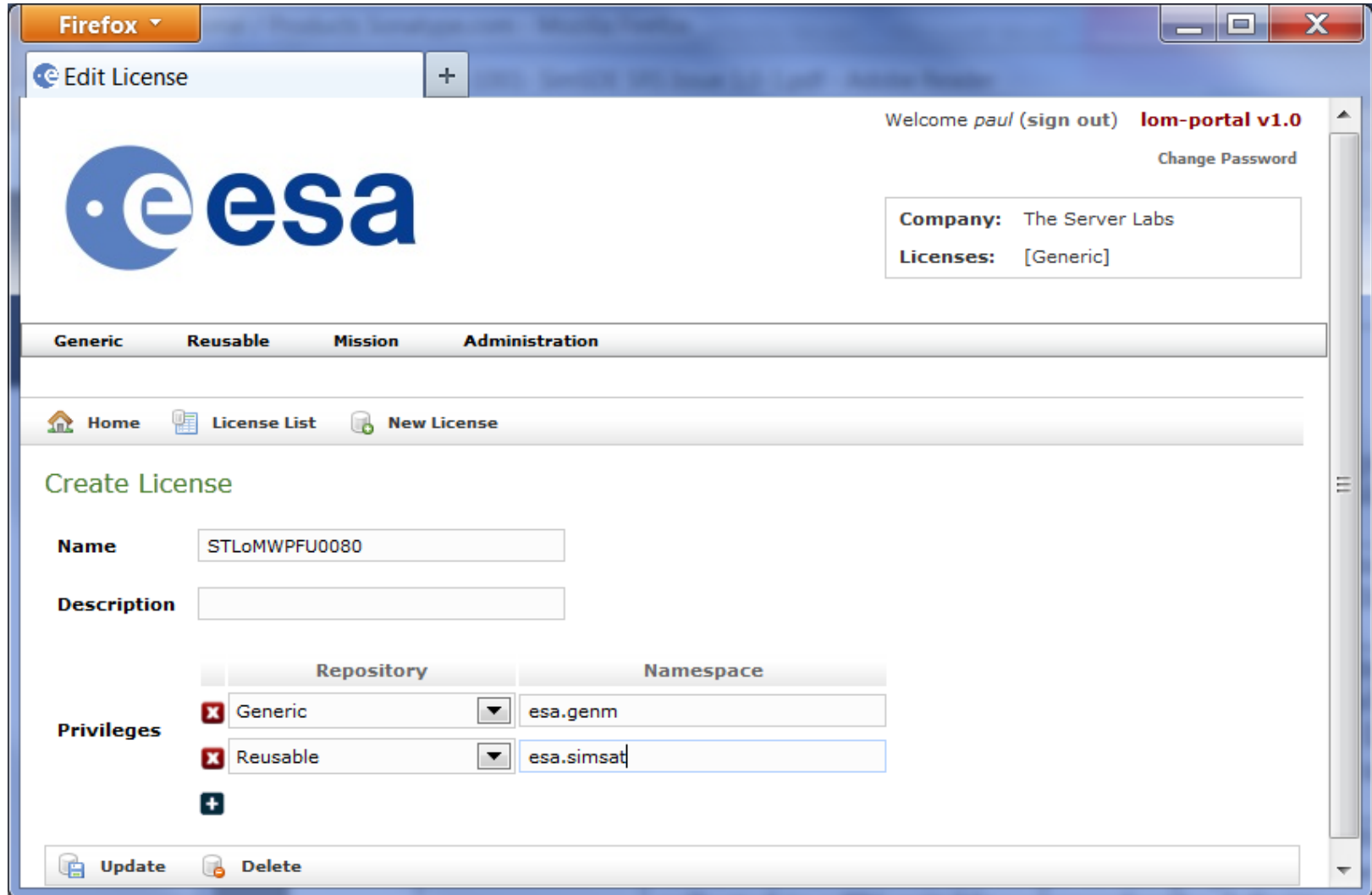
Show Artifact

Home Artifact List

Show Artifact

Namespace	esa
Name	esa.refa
Long Name	esa.refa
Model Type	refa
Artifact Type	solution
Version	2.0
Description	Reference Architecture
Status	development
SimEnvBaseline	
DevPlatformBaseline	
SmpStandardVersion	
Dependencies	- esa:esa.genm:5.0
Supercedes	- esa:refa:1.9
Source	esa.refa-2.0-source.zip (2,157 KB)
Binaries	- esa.refa-2.0-windows-x86.zip (5 KB)
Tags	
Repository	Generic
Projects	- esa.refa:esa.refa.rcs:2.0 - esa.refa:esa.refa.tcs:2.0 - esa.refa:esa.refa.aocs:2.0 - esa.refa:esa.refa.datalinks:2.0 - esa.refa:esa.refa.dhs:2.0 - esa.refa:esa.refa.electronics:2.0 - esa.refa:esa.refa.rfcs:2.0 - esa.refa:esa.refa.eps:2.0 - esa.refa:esa.refa.ground:2.0

ec2-46-137-168-85.eu-west-1.compute.amazonaws.com:8080/LoMPortal/file/resolve/19



The screenshot shows a web browser window titled 'Edit License'. The page header includes the 'esa' logo, a user greeting 'Welcome paul (sign out)', the version 'lom-portal v1.0', and a 'Change Password' link. A navigation menu contains 'Generic', 'Reusable', 'Mission', and 'Administration', with 'Administration' selected. Below the menu are links for 'Home', 'License List', and 'New License'. The main content area is titled 'Create License' and contains a form with the following fields:

- Name:** STLoMWPFU0080
- Description:** (empty text area)
- Privileges:** A table with columns 'Repository' and 'Namespace'.

	Repository	Namespace
<input checked="" type="checkbox"/>	Generic	esa.genm
<input checked="" type="checkbox"/>	Reusable	esa.simsat

At the bottom of the form are 'Update' and 'Delete' buttons.

```
<?xml version="1.0"?>
- <project xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 http://maven.apache.org/maven-v4_0_0.xsd"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://maven.apache.org/POM/4.0.0">
  <modelVersion>4.0.0</modelVersion>
  - <parent>
    <groupId>esa.umf</groupId>
    <artifactId>umf-parent</artifactId>
    <version>1.0</version>
  </parent>
  <groupId>esa</groupId>
  <artifactId>esa.refa</artifactId>
  <version>2.0</version>
  <name>${project.artifactId}</name>
  <packaging>pom</packaging>
  + <properties>
  + <modules>
  - <dependencies>
    - <dependency>
      <groupId>esa</groupId>
      <artifactId>esa.genm</artifactId>
      <version>5.0</version>
      <type>pom</type>
    </dependency>
  </dependencies>
  + <build>
</project>
```

- The integration with UMF is via the LoM Client which is made available within UMF via an Eclipse Plugin

Any questions?



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