

	SocEDA	
	ANR-10-SEGI-013	



SocEDA



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	SocEDA	
	ANR-10-SEGI-013	

Change control

Changes	Author / Entity	Code of version
Creation of the document	Vladimir BODNARTCHOUK	

Objectives

WP 5 : The main goal of ActiveEon is the integration and validation of different components from Work Packages WP2, WP3 and WP4 thus the packaging is downstream of the development process as well as the continuous integration" as each component being developed apart it is necessary to check the compatibility with the whole platform. Furthermore the role of this task is to achieve a good integration between the CEP (Esper), ESB (Petals) and ProActive Parallel Suite and developments in the WP 2-4.

To achieve these objectives, we have selected the open-source platform Jenkins (formerly Hudson) as the continuous integration solution (hosted by EBM WebSourcing) it is used together with the versioning management tool SVN and the collaboration tool JIRA (bug tracker) for incident management and project management. The packaging must be the result of an interoperability validated by non-regression tests that verify both the performance and functionality provided by the SocEDA platform.

Complexity

The interoperability issues consists of:

- technical challenge: the stability of the whole system can be compromised after a modification of one of the component interfaces
- organizational issues due to strong time constraints
- integration issues due to various conventions and backgrounds of the project participants that are mainly coming from scientific research domains
- uniformization issues of the stable version releasing of the components (versioning)

Package description

The current packaging consists of an archive accessible on the Downloads web page (<http://research.petalslink.org/display/soceda/Download>) on the official SocEDA website, the archive contains the following files:

- starting scripts
- current snapshot of all components which versions are detailed below

	SocEDA	
	ANR-10-SEGI-013	

Structure of the archive:

- README.txt
- start.sh
- start.bat
- inst
- origin
 - admin-ui-1.0-SNAPSHOT.zip
 - cep-light-server-1.0-SNAPSHOT.zip
 - CEPeditor.zip
 - crisis-management-resources-1.0-SNAPSHOT.zip
 - EasierGOV-installer-linux-v2012-04-18.jar
 - EasyESB-installer-linux-v2012-04-18.jar
 - event-cloud-bundle-1.0.0-SNAPSHOT.zip
- src
 - ceped.js
 - dicepe.js
 - dsb.js
 - ec.js
 - gov.js
 - main.js
 - sc.js
 - util.js
 - ws.js

Scripts for starting the SocEDA platform

For starting all components we had a vast choice of tools:

- Shell scripts
 - Benefits:
 - simple and little wordy
 - Drawbacks:
 - scripts are not portable between Unix/Windows
 - doubles the development time
 - the syntax may become complex
 - hard to debug
- Apache Ant
 - Benefits:
 - a lot of features and simple usage
 - scripts are portable between Unix/Windows
 - Drawbacks:
 - requires additional plugins for extra features
 - verbose XML based syntax
- Writing a Java module
 - Benefits:

	SocEDA	
	ANR-10-SEGI-013	

- very precise control components, wide possibility of integration
 - access to the Java API
 - Drawbacks:
 - requires recompilation
- JVM interpreted language (javascript)
 - Benefits:
 - no need for compilation which is time consuming
 - availability of the full Java API
 - one of the most well-known programming language accessible for all project participants
 - Drawbacks:
 - non-typed language therefore less errors are detected during development
 - verbose syntax

Assuming that the major part of the components of the SocEDA platform are written in Java, we have selected the Java virtual machine interpreted javascript language for starting components in the packaging. A tool for executing javascript scripts is available from 1.6 version of the JDK (Java Development Kit) provided by Oracle as well as IBM.

The EasierGOV governance tool

Official distribution of the stable release provided by Petalslink.

Archive name: EasierGOV-installer-linux-v2012-04-18.jar

Origin : <http://research.petalslink.org/display/easiergov/Binaries>

The EasyESB distributed service bus

Official distribution of the stable release provided by Petalslink.

Archive name: EasyESB-installer-linux-v2012-04-18.jar

Origin : <http://research.petalslink.org/display/easyesb/Binaries>

The SeaCloud controller

Snapshot of the current development version based on the source code from the project's SVN repository.

Archive name: admin-ui-1.0-SNAPSHOT.zip

SVN Revision: rev31601

Origin : <https://svn.petalslink.org/svnroot/trunk/research/commons/seacloud>

Compilation instructions:

- From admin-server project run mvn clean install '-Pdistrib-soceda' to generate the target
- Then copy admin-ui-1.0-SNAPSHOT.zip to the "origin" dir

	SocEDA	
	ANR-10-SEGI-013	

The EventCloud distributed data engine

Binaries based on the current development version provided by I3S.

Archive name: event-cloud-bundle-1.0.0-SNAPSHOT.zip

Origin : <http://eventcloud.inria.fr/binaries/event-cloud-bundle-1.0.0-SNAPSHOT.zip>

DiCEPE distributed complex event processing engines DiCEPE

Snapshot of the current development version based on the source code from the project's SVN repository.

Archive name: cep-light-server-1.0-SNAPSHOT.zip

SVN Revision: rev32912

Origin : <https://svn.petalslink.org/svnroot/trunk/research/commons/seacloud/cep-light-server>

Compilation instructions:

- From admin-server project run mvn clean install '-Pdistributed-soceda' to generate the target
- Then copy cep-light-server-1.0-SNAPSHOT.zip to the "origin" dir

WSProviders events providers web services

Snapshot of the current development version based on the source code from the project's SVN repository.

Archive name: crisis-management-resources-1.0-SNAPSHOT.zip

Revision SVN : rev32663

Origin: <https://svn.petalslink.org/svnroot/trunk/research/projects/soceda/wp5-usecases/uc1-crisis-management/management/management-resources>

Compilation instructions:

- From crisis-management-resource uncomment assembly related code from pom.xml then do: mvn clean install -Pdistributed-soceda -DskipTests=true
- Once the target been generated include the starting of all providers except SeaCloud

CEP rules editor

Binaries based on the current development version provided by Orange.

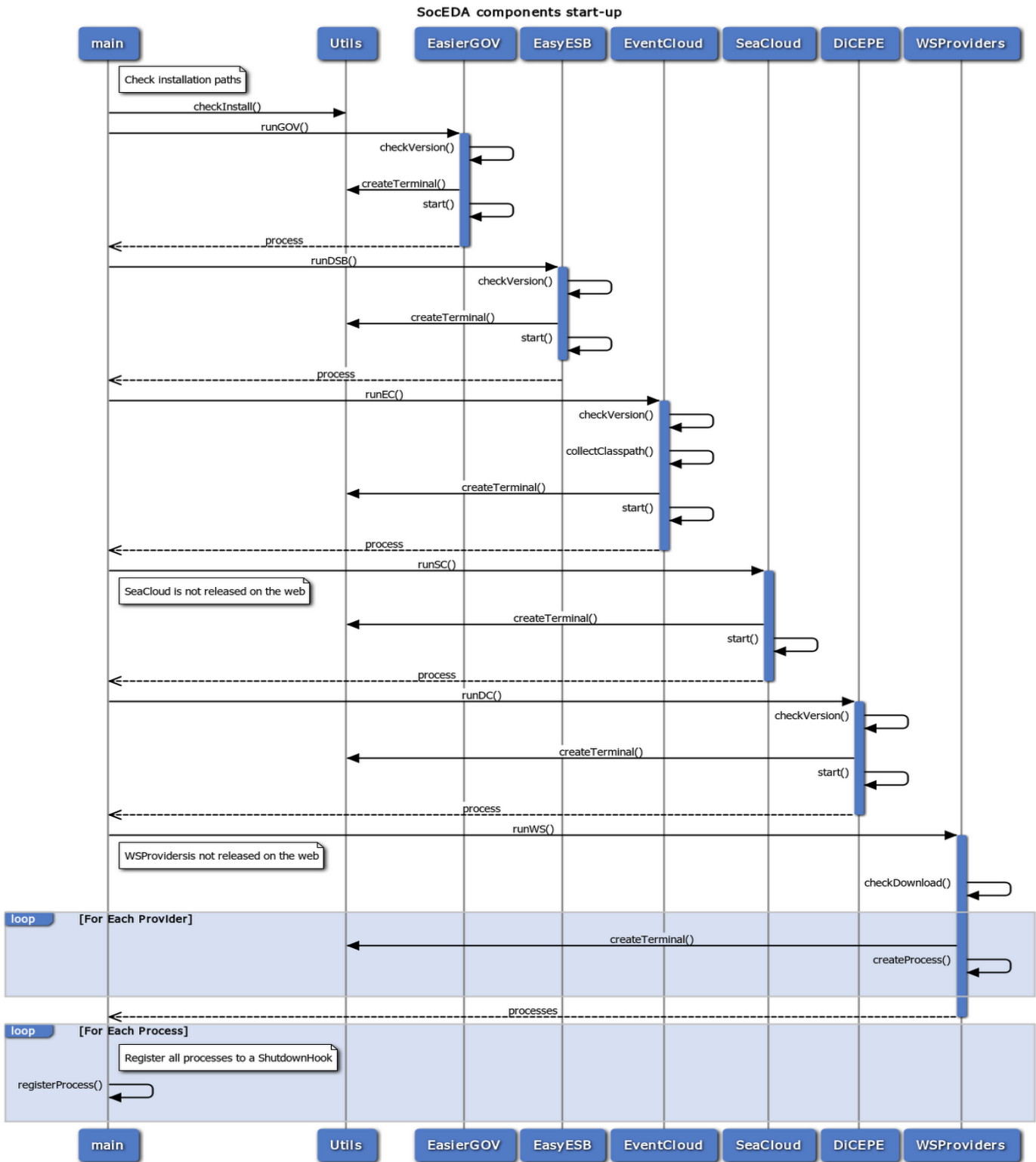
Archive name: [CEPEditor.zip](#)

Origin: <http://161.105.138.99:8080/CEPEditor/CEPEditor.zip>

Note: The CEP rules editor is a web based application accessible in the web navigator, the package is provided with an embedded Tomcat web server. The application will be accessible on the local machine at the <http://localhost:8088/Portail> address.

	SocEDA	
	ANR-10-SEGI-013	

Starting sequence



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By using the javascript, and thanks to the Java API, we are able to have a low-level control of the

	SocEDA	
	ANR-10-SEGI-013	

starting sequence, for instance accessing the standard output, during the starting sequence of the components, which is useful for checking the

First of all the **main.js** script checks the installation validity, then initiates the starting sequence of each component inside a separate terminal in order to see the std output of each component.

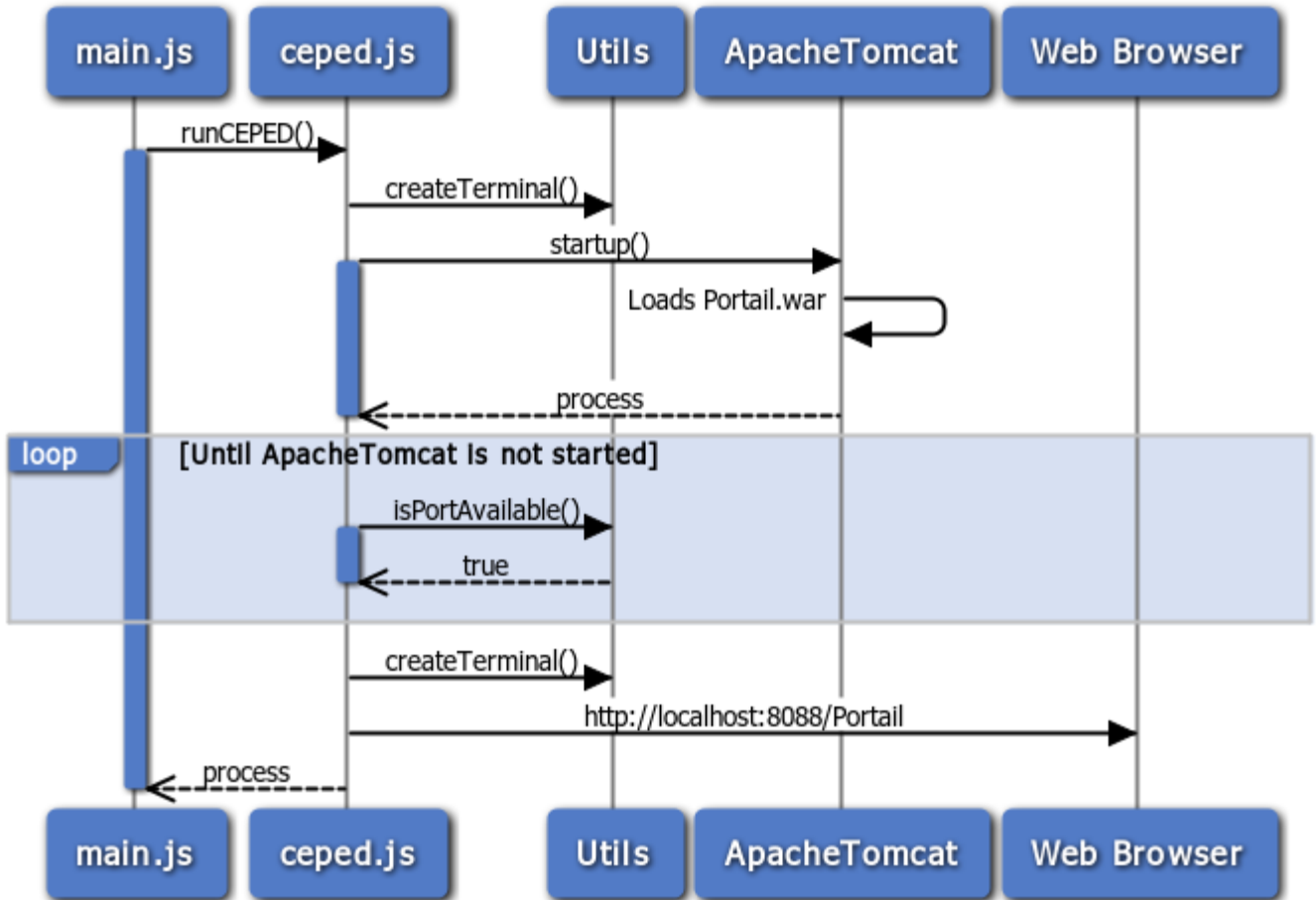
We are currently implementing a mechanism that checks if a newer version exists with an automatic download for the majority of the components.

The web services acting as events providers are started in the following order:

- fr.mines_albi.nuclearcrisisevent.provider.MotoristProviderEvent_WSOUIServer
- fr.mines_albi.nuclearcrisisevent.provider.MotoristProvider_WSOUIServe
- fr.mines_albi.nuclearcrisisevent.provider.DriverProviderEvent_WSOUIServer
- fr.mines_albi.nuclearcrisisevent.provider.DriverProvider_WSOUIServer
- fr.mines_albi.nuclearcrisisevent.provider.BusProviderEvent_WSOUIServer
- fr.mines_albi.nuclearcrisisevent.provider.BusProvider_WSOUIServer
- fr.mines_albi.nuclearcrisisevent.provider.CarProviderEvent_WSOUIServer
- fr.mines_albi.nuclearcrisisevent.provider.CarProvider_WSOUIServer
- fr.mines_albi.nuclearcrisisevent.provider.VehicleProviderEvent_WSOUIServer
- fr.mines_albi.nuclearcrisisevent.provider.VehicleProvider_WSOUIServer
- org.petalslink.officeofinfrastructure.OfficeOfInfrastructureEventProducer_WSOUIServer
- org.petalslink.officeofinfrastructure.OfficeOfInfrastructure_WSOUIServer

	SocEDA	
	ANR-10-SEGI-013	

SocEDA CEPEDITOR startup



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