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EMCS Business Prototype	28/04/2004	EMCS Business Prototype

EXCISE SYSTEM SPECIFICATIONS
PRODUCTION, MAINTENANCE AND SUPPORT,
COORDINATION AND INFORMATION PROGRAM
(LOT ESS)

SUBJECT:

Framework Contract EMCS Business Prototype

EMCS Business Prototype
User Manual

EMCS Business Prototype

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Document History

Edi.	Rev.	Date	Description	Action (*)	Pages
1	pre00	20/09/2004	First version created	I	All
1	pre01	05/10/2004	QA Internal Review	I/R	All
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2	00	28/04/2005	Submitted for Acceptance	R	All

(*) Action: I = Insert R = Replace

TABLE OF CONTENTS

TABLE OF FIGURES

TABLE OF TABLES

5

1 Introduction

1.1 Purpose

Prototype User Manual describes how to use the EMCS Business Prototype.

1.2 Field of Application

This Prototype User Manual is applicable to prototyping activities undertaken by DG TAXUD in the context of Excise System Specifications (ESS), and in particular the functional stage in order to support the elaboration of the Functional Excise System Specifications [R2].

2 Reference and Applicable Documents

2.1 Reference Documents

Ref.	Identifier	Title	Version	Issued
R1	ECP1-ESS-PIG	Prototype Installation Guide	V2.00	28/04/2005
R2	ECP1-ESS-FESS	Functional Excise System Specifications	V1.00	18/04/2005
R3	ECP1-ESS-GLT	Glossary of Terms	V1.01	14/11/2004
R4	3AT 05006 AAAA CRZZA	Feasibility Study – consolidated report	V01	12/10/1999
R5	3AT 05006 AAAA DTZZA	Feasibility Study – final report	V02	19/11/1999
R6	CED Nr. 394	Addendum to the Feasibility Study	Rev1	29/01/2003
R7	CED Nr. 474	Report by the Reflection Group		16/06/2004
R8	ECP1-ESS-GLT	Glossary of Terms	1.01-EN	14/11/2004
R10	ECP1-ESS-FRS	Fall-back and Recovery Specification	V0.03-EN	01/10/2004
R11	TSS-FSF-REL4	Functional transit System Specifications V 4.0-e	V 4.0-e	28/08/2001
R12	ECP1-ESS-INP	Information Policy	2.03	22/12/2004
R14	ECP1-ESS-TOC	Terms of Collaboration	2.03	03/12/2004
R15	CED Nr. 333	SEED DATABASE	Rev 3	31/07/2001
R16	CED Nr. 457	Administrative arrangement for the use of the Early Warning System	final	02/07/2004
R17	CED Nr. 329	Request for verification of intra-community movements of excise goods	Rev. 7	15/11/2002
R18	ECP-FITSDEV-SA02-SEEDV0-FSS	Functional Excise System Specification for SEED V.0	0.5	25/01/2005

Table1: Referencedocuments

2.2 Applicable Documents

Ref.	Identifier	Title	Version	Issued
A1	CED No 382	ECP Project Management Plan	3.00 Rev2	29/01/2003
A2	CED No 431	ECP Master Plan	Rev 1	28/11/2003
A2	92/12/EEC	Council Directive on the general arrangements for products subject to excise duty and on the holding, movement and monitoring of such products		25/02/1992
A4	(EEC) No 2719/92	Commission Regulation on the accompanying administrative document for the movement under duty-suspension arrangements of products subject to excise duty		11/09/1992
A5	(EC) No 31/96	Commission Regulation on the excise duty exemption certificate		10/01/1996
A6	(EC) No 2073/2004	Council Regulation on administrative cooperation in the field of excise duties		16/11/2004

Table2:Applicabledocuments

3 Terminology

3.1 Abbreviations and Acronyms

AAD	Administrative Accompanying Document
BPR	Business Prototype (or FESS Prototype)
COL	Customs Offices List
EC	European Commission
ELO	Excise Liaison Officer
EOL	Excise Offices List
EMCS	Excise Movement and Control System
ESS	Excise System Specifications project
EWSE	Early Warning System for Excises
FESS	Functional Excise System Specification
MA	Mutual Assistance
MSA	Member State Administration
MVS	Movement Verification System
ORO	Occasionally Registered Operator
SEED	System of Exchange of Excise Data

Table 3: Abbreviations and Acronyms

3.2 Definitions

Actor	Defines someone (people or application) involved in the EMCS. Each one plays specific role in various use cases.
Excise System Specifications project (ESS)	The Excise System Specifications project (ESS) is the phase 1 of the Excise Computerisation Project (ECP) that aims at setting up the Excise Movement and Control System (EMCS).
Entity	An entity is a piece of information, either very elementary or complex, that is used to build the information exchange messages.
Role	Defines actor's responsibility and motivation for the various use cases.
Scenario	Scenario defines particular context where EMCS is used (e.g.: movement between registered traders, EWSE, etc.).
Use Case	A complete sequence of related actions initiated by an actor to accomplish a specific goal; it represents a specific way of using the system. It describes a process by which actors do things that lead to the need for information interchange. A use case contains also all alternate flows of events related to producing the observable result.

Table 4: Definitions

4 Overview

This guide aims at presenting the EMCS Business Prototype. It leads you through the process of understanding principles and symbols. Among all the symbols which appear in the prototype, the following icons indicate various types of links:

Normal link. It denotes branching to another part of the prototype.

Link to help. It appears when a contextual on-line help is available.

Link to a FESS reference. It appears when a reference to the FESS is available.

4.1 General principles

The EMCS Business Prototype ***is not a pre-version of the target system***. It is didactic material that assists the readers of the EMCS Functional Specification. ***It is a simulator*** that shows what the system will do. The aim for prototyping EMCS services during the specification phase is to support the specification methodology and to validate the various options elected. The FESS Prototype (or BPR - Business Prototype) consists in the functional stage of the EMCS Prototyping. It illustrates the global understanding of functional demands and its purpose is to demonstrate users how the target system could behave.

The general principle of the prototype is that it is driven by scenarios (see section 4.3 Scenarios). A scenario puts the prototype context under certain conditions in order to simulate specific situations (use cases as described in the FESS [R2]). A scenario defines actors (see section 4.2 Actors and Roles) that play roles and applications that execute processes. Those processes manipulate entities (e.g. e-AAD, temporary authorisation, etc.) that exist according to life cycles.

The EMCS Business Prototype gives the vision of the various actors on the future system. It shows how they can act and when (states). Therefore, the prototype highlights:

- The manipulated entities, their content and their life cycle;
- The involved actors, their roles and their capabilities (states) regarding a particular scenario;
- The automated applications, their behaviour through the various processes they must implement;
- The exchanged messages.

There are two different ways to use the EMCS Business Prototype:

- Select and play a scenario (see section 5.1. Activate a scenario) and consult the FESS through the BPR FESS Index (see section 5.3. Using the FESS index) for more details about a particular use case;
- Read the FESS documents and use the BPR FESS Index (see section 5.3 Using the FESS index) to know which scenario is relevant to illustrate a particular use case.

The “HELP” page provides another entry point. It describes the scenarios and actors, and provides links to the various implemented use cases and elementary business processes.

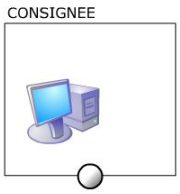
4.2 Actors and Roles

The following sections describe the major roles involved in the system.

4.2.1 Consignor

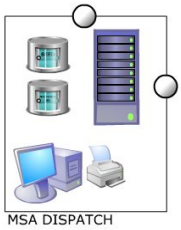
The consignor submits the AAD and all possible changes: cancellation with or without replacement, update, splitting, chaining, etc. The consignor is the owner of the content of an AAD, i.e. he or she is the only one allowed to change its content.

4.2.2 Consignee



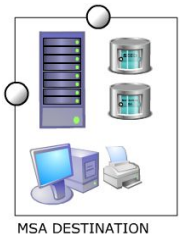
The consignee reports receipt or refusal of goods, warns on non-conformity of documents.
Note: the prototype does not implement the" take away" use cases.

4.2.3 MSA at dispatch



MSA Dispatch application validates all information submitted by the consignor, in particular all successive states of the AAD. Then, it registers the e-AAD, assigns an ARC to it and sends the information to all MSA applications concerned.

4.2.4 MSA at destination



MSA Destination application forwards, as far as possible, information to the consignee and possibly to the tax representative, then formally validates the report of receipt and transfers it to the MSA Dispatch system; monitors incoming traffics, i.e. the goods entering into a tax warehouse.

4.2.5 MSA at transit

MSA Transit application (in some other Member State involved in a movement) is informed of all information concerning the given movement.

4.2.6 Common Domain Central Services

Common Domain Central Services is in particular dedicated to produce, collect and keep reference and SEED information, statistics and monitoring data.

4.2.7 Other actors

MSA Official is any agent of an MSA having a role in EMCS. He or she needs and is entitled to consult information related to EMCS.

Excise officer performs operational duties that belong to the MSA in EMCS movement: registers temporary authorisations, reports receipt or refusal of goods on behalf of an ORO (Occasionally Registered Operator).
Note: the prototype does not implement "permanent exemptions" use cases.

Excise Liaison Office (ELO) manages all exchanges between Member States concerning movements and other EMCS-linked information, in particular concerning SEED and EOL data, enquiries and EWSE.
Note: the prototype does not implement MVS and MA use cases.

Control officer performs and reports documentary or physical controls.

Economic Operator: any economic operator involved at a given movement is entitled to consult information of that movement and to request up-to-date reference information

MSA Central Services produces, collects and keeps SEED and reference data.

Chaining Operator and **MSA of Chaining** are in involved in the particular case of the "chaining transaction".

4.3 Scenarios

The Business Prototype provides various scenarios. The first thing to do after you started the application is to select a scenario (see section 5.1 Activate a scenario).

A scenario mainly defines participants. During the execution of the prototype, you explore the various points of view of the involved actors. A scenario is animated by a storyboard (see section 4.4 Storyboard) that narrates a story that may take various ways.

1.1.1 Movements between warehouse keepers/registered trader

This scenario is the most basic one and should cover most EMCS movements; it consists in an authorised warehouse keeper sending goods under duty suspension to a tax warehouse or to a registered trader.

The participants are:


Consignor
is entitled to dispatch the goods under Excise suspension arrangements.


Consignee
is entitled to receive goods under Excise suspension arrangements.


MSA at dispatch
validates and forwards the submitted e-AAD.


MSA at destination
is responsible for the control of the report of receipt.


MSA of transit
is informed of the movement.


Control Officer
submits a control report to his MSA application after a movement control.


MSA official
needs and is entitled to consult information related to EMCS

Chaining transaction

In that scenario, the consignee of an e-AAD is able to simultaneously discharge the first e-AAD (the upstream e-AAD) and to fictitiously send the same goods to another consignee under a second e-AAD (the downstream e-AAD). This is called “chaining transaction”. In this context, the following transiting roles participate to the scenario:


Chaining Operator
is entitled to chain an e-AAD.


MSA of Chaining
validates and forwards the downstream e-AAD.

FESS coverage

The following FESS use cases [R2] are demonstrated in this scenario:

UC2.01	Submission and registration of e-AAD

UC2.05	Change of destination
UC2.06	Submission of report of receipt
UC2.07	Warning or refusal of consignment
UC2.10	Cancellation of an e-AAD by the consignor
UC2.11	Dissemination of a replaced or updated e-AAD
UC2.13	Losses
UC2.18	Confirmation of cancellation
UC2.36	Splitting of consignment
UC2.37	Submission of chaining
UC3.03	Control and submission of the control report
UC3.04	Consultation of control report

Table 5: Movements between warehouse keepers/registered trader (Use Cases)

4.3.1 Movements between warehouse keeper and non registered trader

This scenario is almost the same as the previous one, except that the consignee is not permanently registered in the SEED; the goods are deemed to be released for consumption at delivery. Hence, the consignee has to guarantee in advance payment of duties at arrival.

Prior to dispatch of goods, the non-registered trader must obtain a temporary authorisation to receive a given quantity of goods under duty suspension arrangements.

The procedures at arrival are performed at an Excise office instead of a tax warehouse or at the premises of a registered trader.

The participants are:


Consignor
aims to send a consignment under excise suspension to a non-registered trader.


Consignee
aims to receive a consignment as a temporary registered trader.


Excise Office at destination
submits the report of receipt on behalf of the consignee and registers the temporary authorisation.


MSA at dispatch
validates and forwards the submitted e-AAD.


MSA at destination
is responsible for the control of the report of receipt.


MSA of transit
is informed of the movement.


Control Officer
submits a control report to his MSA application after a movement control.


MSA official
needs and is entitled to consult information related to EMCS

FESS coverage

The following FESS use cases [R2] are demonstrated in this scenario:

UC2.01	Submission and registration of e-AAD
UC2.02	Registration of temporary authorisation
UC2.05	Change of destination
UC2.06	Submission of report of receipt
UC2.07	Warning or refusal of consignment
UC2.10	Cancellation of an e-AAD by the consignor
UC2.11	Dissemination of a replaced or updated e-AAD
UC2.13	Losses
UC2.15	Cancellation of a temporary authorization
UC2.18	Confirmation of cancellation
UC3.03	Control and submission of the control report
UC3.04	Consultation of control report

Table 6: Movements between warehouse keeper and non registered trader (Use Cases)

4.3.2 EWSE and EMCS

EWSE consists of two classes of exchanges:

- **EWSE information** consists in the MSA of dispatch systematically sending in advance to the MSA of destination a copy of the e-AAD;
- **EWSE warning** consists in the MSA of dispatch selectively sending in advance to the MSA of destination a copy of the e-AAD that they consider at risk.

The participants are:

Excise Liaison Office (ELO) at Dispatch
detects suspect movements resulting from Risk Assessment and, if relevant, submits an EWSE warning message to the MSA of destination.

Excise Liaison Office (ELO) at Destination
performs controls and actions requested by the MSA of dispatch. In the case of an "Information message", the ELO at destination has also the role to detect and select suspect movements for which he can decide to perform controls (without any request from the MSA of dispatch).

FESS coverage

The following FESS use cases [R2] are demonstrated in this scenario:

UC3.01	Early warning system – information
UC3.07	Early warning system – warning
UC3.09	Early warning system - deadline for feedback

Table 7: EWSE and EMCS (Use Cases)

4.3.3 Management of SEED data

The Article 22 of Council Regulation (EC) No 2073/2004 states about SEED data. The management of SEED information is shared by the Common Domain and the MSAs.

The participants are:

Common Domain Central Services
are responsible for validating and timely disseminating updates of SEED data.

MSA Central Services
provide in due time up-to-date and exact changes of SEED data and are responsible for timely activating the received updates from the Central Services.

Economic Operator
wants to verify accuracy of his own registration information.

FESS coverage

The following FESS use cases [R2] are demonstrated in this scenario:

UC1.14	Dissemination of SEED data
UC1.16	Re-Synchronisation of SEED data
UC1.24	Consultation of own registration information by an economic operator

Table 8: Management of SEED data (Use Cases)

4.3.4 Management of reference data

Changes of other reference data than the EOL/COL are decided at common level and applied by the Common Domain central services following directions of the Commission. The EOL is maintained and disseminated as a part of the COL, so constituting a common EOL/COL.

The participants are:

Common Domain Central Services
are responsible for the accuracy and timely dissemination of reference data.

MSA Central Services
are responsible for timely activating the received updates.

Economic Operator
requests up-to-date reference information.

FESS coverage

The following FESS use cases [R2] are demonstrated in this scenario:

UC1.04	Maintenance of reference data
UC1.05	Re-synchronization of reference data
UC1.06	Dissemination of reference data
UC1.13	Consultation of public reference data by economic operators

Table 9: Management of reference data (Use Cases)

4.4 Storyboard

A storyboard consists in animations for particular steps of a selected scenario. It provides an overview of flows, exchanged messages, state transitions and functional interfaces. In some cases, you are able to alter the scenario according to the defined alternative flows.

The selected scenario takes place somewhere in Europe where traders in various countries exchange products under excise duty suspension arrangements.

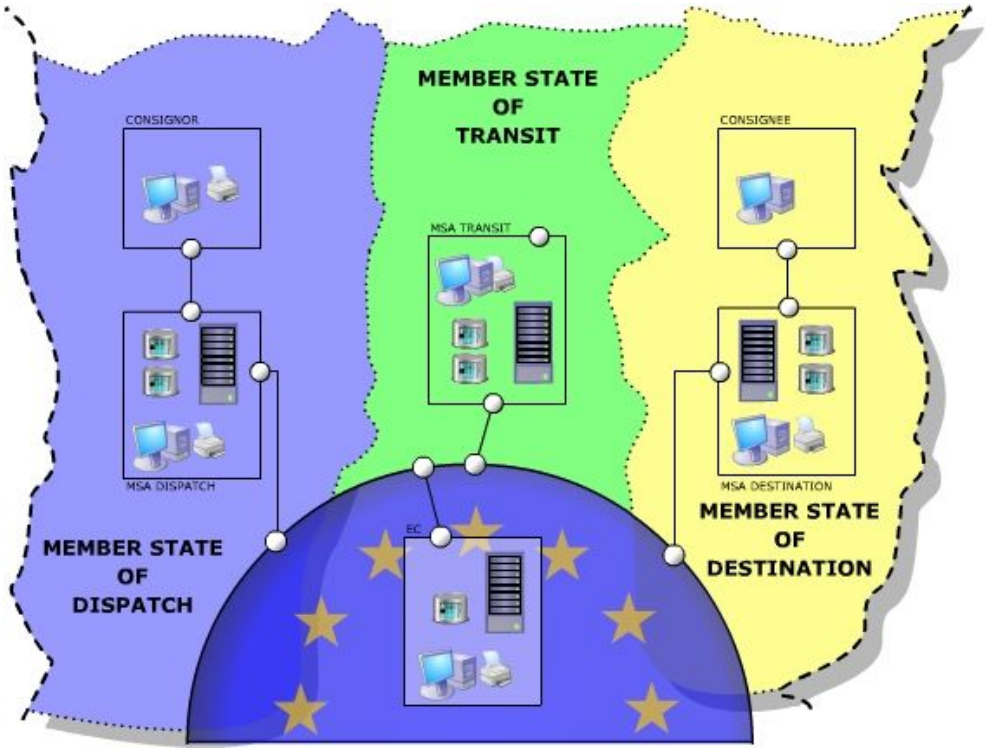


Figure1: Storyboard (map)

A scenario always starts with a preamble that provides the general context and the first steps that occur.

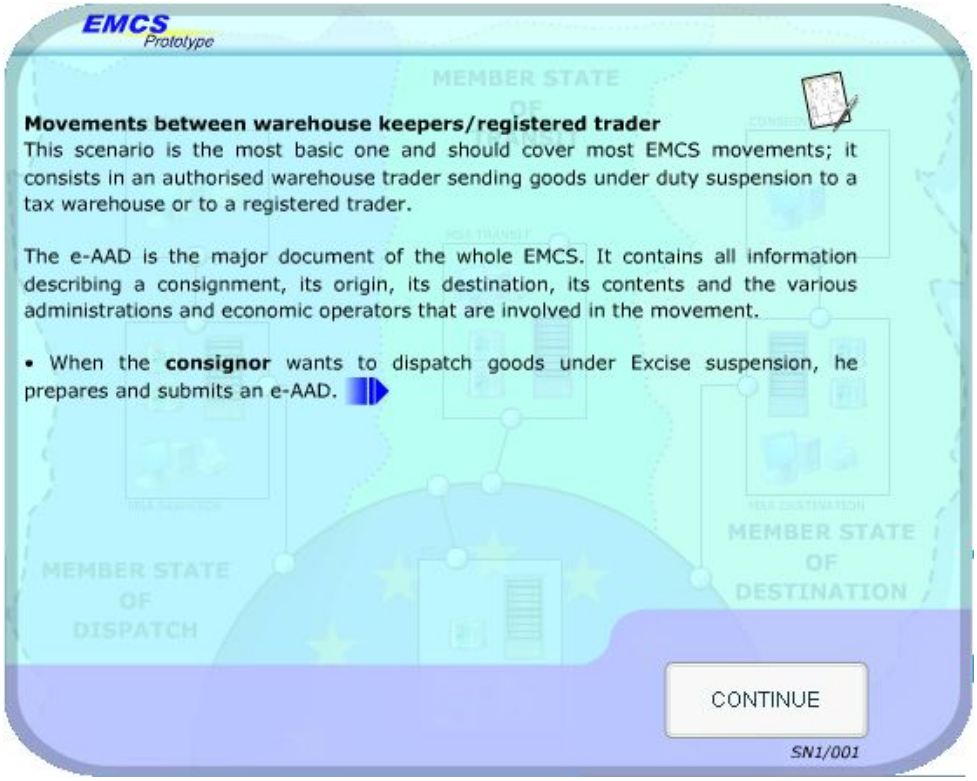


Figure2: Storyboard (scenariostart-up)

A scenario has a predefined flow that narrates a story where everything occurs as expected. When the 'CONTINUE' button appears, it leads to the next step in the predefined flow. But you are able to change the story by taking other possible ways that narrates another continuation of the story that the system is able to support. The blue arrows indicate the alternative flows. You are free to take any provided flow.

Each step of a scenario may describe:

Scenario shunting. It allows selecting alternative flows.
The background is blue.

Operator's action. It describes an action that an actor of the scenario can take.
The background is white.

Message exchange. It describes the exchanged message.
The background is yellow.

Automatic action. It describes action (or process) that will be automatically performed in the target system. Usually, you are able to select the result of the process in order to route the scenario through the desired flow.
The background is grey.

The above mentioned icons appear in the top-right corner of the screen. The background colour of the screen varies consequently.

When a step of the scenario concerns a specific actor, the screen indicates the actor's identification and the state of the currently manipulated entity regarding the actor's role.

Figure 3: Storyboard (Actor's state)

At any time, you can also see an actor's state in a list that summarises roles involved in the scenario.

Figure 4: List of actors

Each item of the list provides the role (i.e. 'CONSIGNOR'), the identity (i.e. 'EO1/MSA1'), the entity state (i.e. 'ACCEPTED) and the state of the concerned actor (i.e. 'Waiting for discharge'). The displayed state depends on the entity that is currently operated.

During a scenario, several entities can appear. A list describes the type and the reference of existing entities. The highlighted item represents the current operated entity. The entities appearing in blue are the ones taken into account during processes.

Figure 5: List of entities

You are able to select another entity and to consult the state for each actor.

5 Using the EMCS Business Prototype

You can access the EMCS Business Prototype in various ways. See the Prototype Installation Guide for more details ([R1]).

When the prototype executable is activated, an introduction page appears. It welcomes you and briefly introduces the prototype.

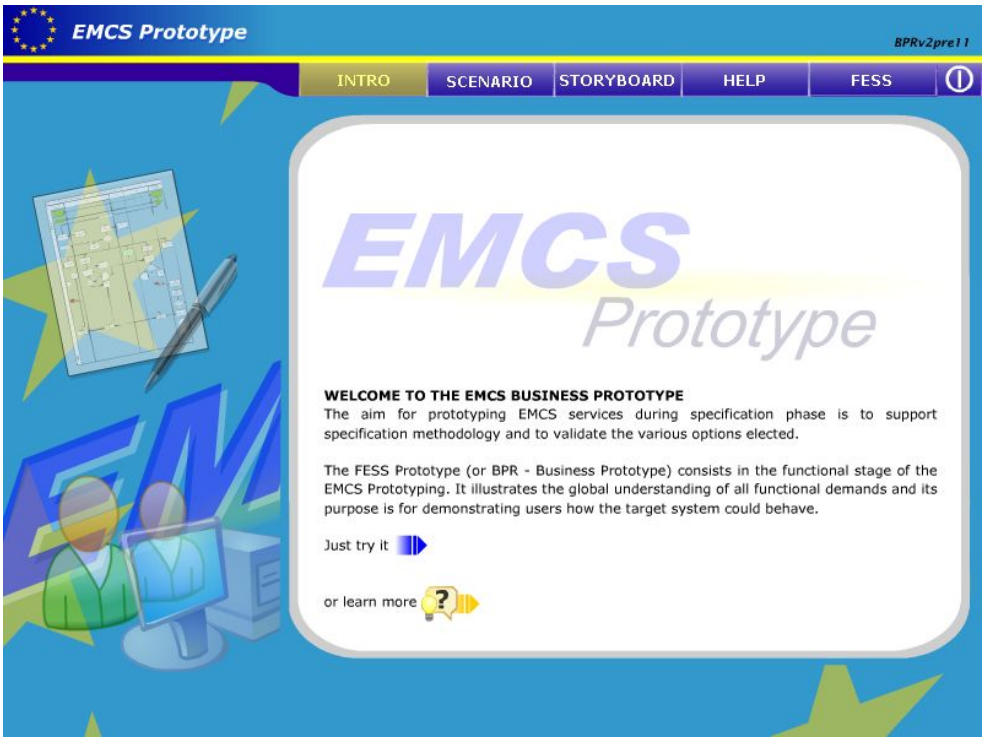


Figure 6: Prototype launching (welcome page)

It is always possible to go back to the introduction page by clicking the button “INTRO”. Other buttons are available:

- **SCENARIO**. This button leads to a screen that allows selecting a scenario;
- **STORYBOARD**. This button displays the running scenario;
- **HELP**. This button provides access to the help;
- **FESS**. This button provides access to the FESS index (see section 5.3 Using the FESS index).
-  allows to close the application.

By clicking on the blue arrow, the scenario screen is displayed and the first scenario is selected.

5.1 Activate a scenario

The activation of a scenario is performed through the scenario screen.

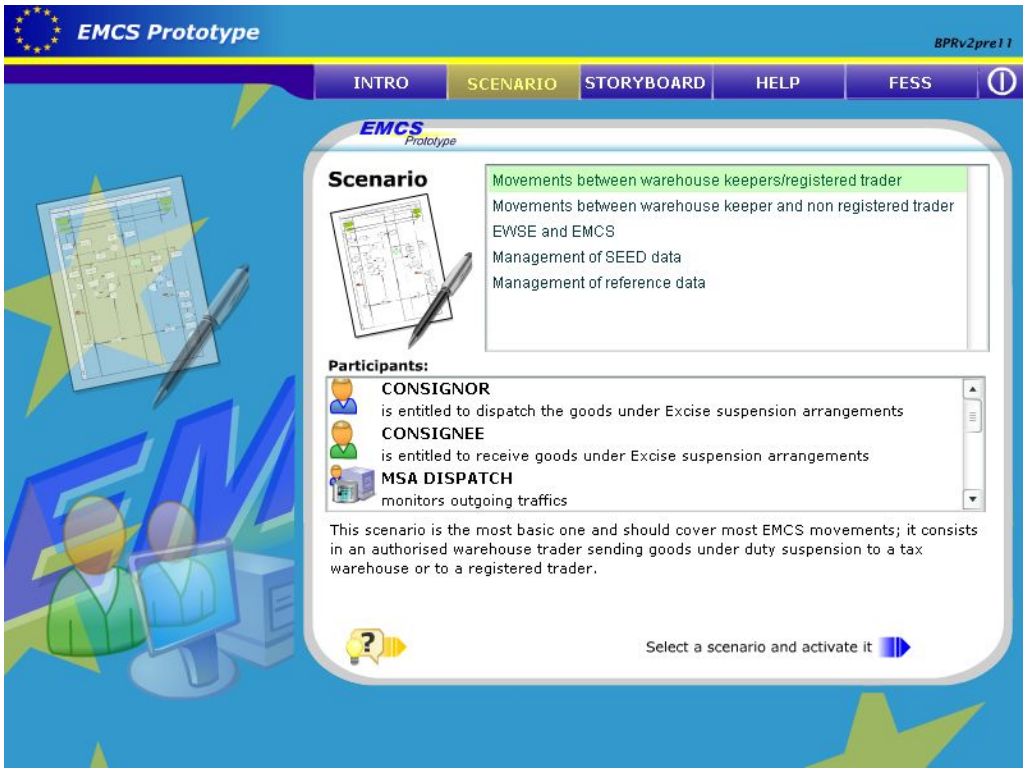


Figure 7: Activate a scenario

The scenario screen provides the list of available scenarios and allows selecting one of them. Each scenario is briefly introduced and the list of participants is provided.

By clicking on the blue arrow, the storyboard screen is displayed and the selected scenario starts.

The EMCS Business Prototype provides various scenarios that illustrate major use cases of the FESS specifications.

If you are looking for the illustration of a particular use case, refer to the FESS index (see section 5.3 Using the FESS index) that indicates, for each use case, the applicable scenario(s).

5.2 Control the storyboard

The control of the storyboard is performed through the storyboard screen.

The storyboard illustrates through animations the selected scenario and related use cases of the FESS Specifications. Each story has a predefined flow.

When the 'CONTINUE' button appears, it leads to the next step in the predefined flow (the first general process thread in section II of the FESS [R2]). The blue arrows indicate the alternative flows. You are free to take any provided flow.

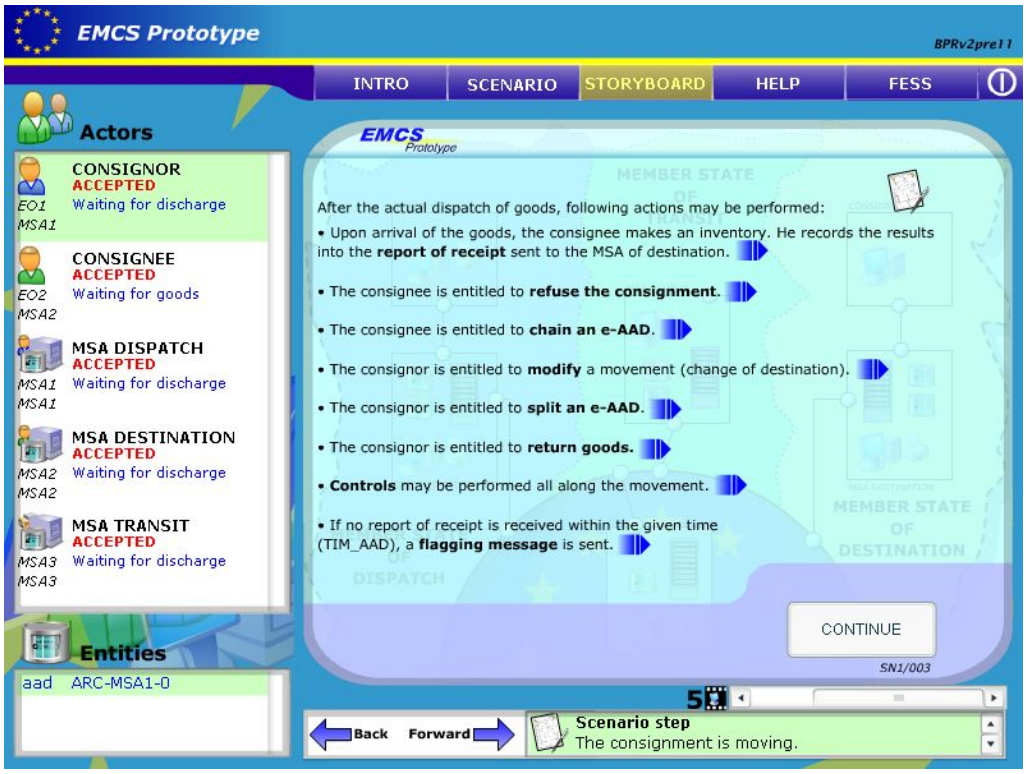


Figure 8: Control the storyboard

1.1.1 Perform actor's action

When the storyboard shows a context where an actor must take action, the appropriate button indicates the action that leads to the next step in the scenario.

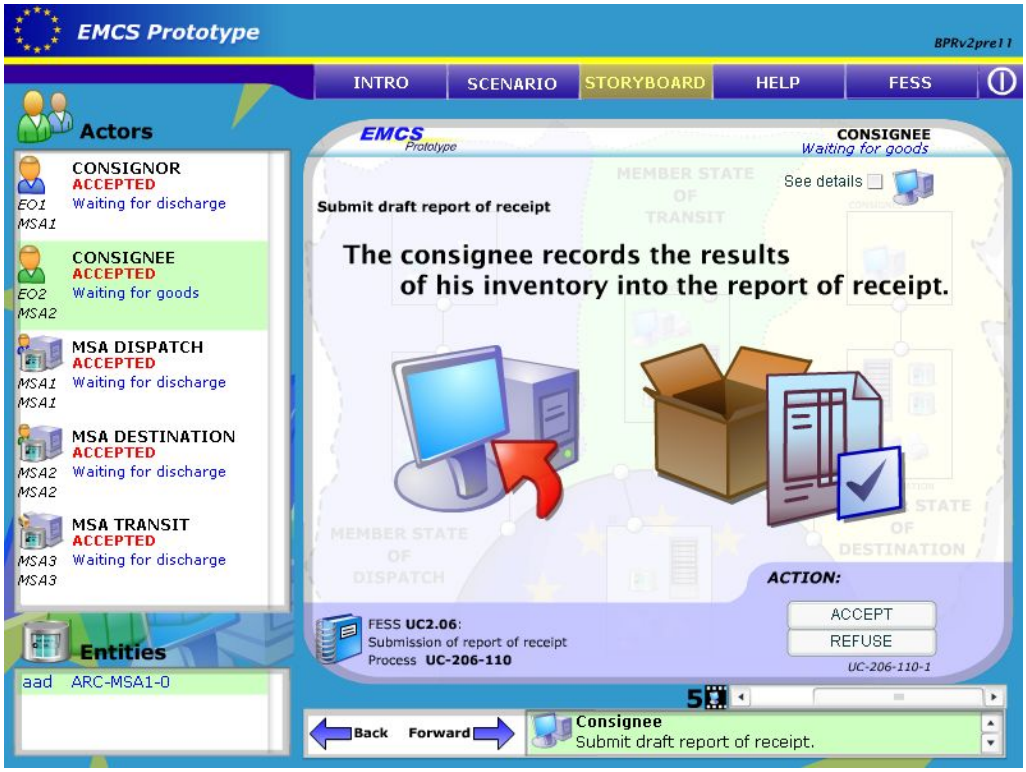
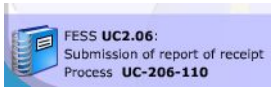


Figure 9: Control the storyboard (Actor's action)

In some cases, mainly for automatic activities, more than one button is available that provide the various results the action can return.



Each actor's action refers to a use cases as described in the FESS. By clicking the FESS reference icon, you switch to the FESS index that provides more details about the concerned use case (see section 5.3 Using the FESS index).

By default the storyboard displays the summary of each step. If you want more details about the action, just click the "See details" check-box.

5.2.1 Return back to the history

Each step of a played scenario is memorised. This allows you to return to a previous step. The list of all played steps is summarised and allows you to directly access one of them.

Figure10: Controlthe storyboard (history)

By scrolling the list, you can see the type and the title of each step and select one of them to put the prototype in the desired context.

5.2.2 Control the animation level

By default, the storyboard plays all the animations between steps, including the zoom of the map on each actor. But you can adjust the level of the animation using the slider shown below.

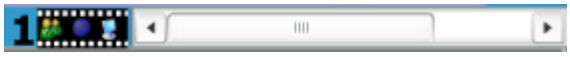


Figure11: Controlthe animation level

The values for the level of animation are:

1. All the animations are played (zoom, actor's animation, message exchanges, and screen fading).
2. The storyboard does not zoom any more. But a blue square indicates to you where the next actor is located on the map.
3. The storyboard does not show actor's animations any more.
4. Only message exchanges are animated (no more fading).
5. No more animations.

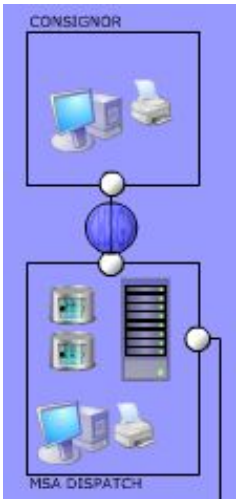


Figure12: Message exchanges

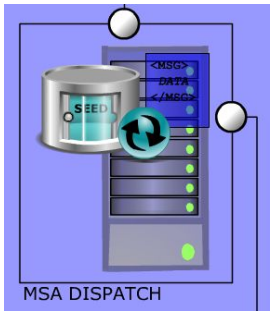


Figure13: Actor's animations

5.3 Using the FESS index

The FESS index is accessible through the FESS index screen.

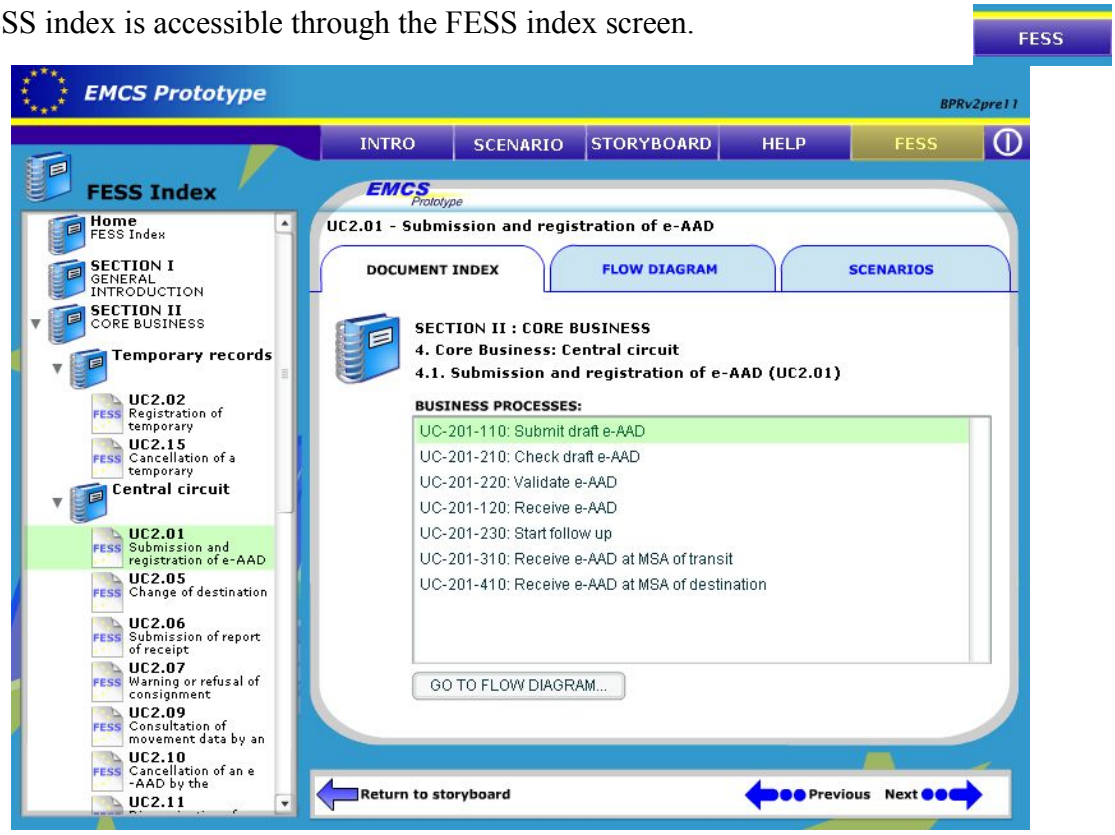


Figure14: FESS Index

The FESS index is organised like the FESS documents (section/use cases/processes). This way you can easily find a use case as you read the FESS documents. Each page of the index provides:

- The **Document Index**. It gives to you the section and headings where the selected use case can be found in the FESS documents. It also provides to you the list of processes defined in the use case. The "GO TO FLOW DIAGRAM button" switches to the next tab and shows to you the process in the flow diagram.

- The **Flow Diagram**. For each use case, it displays the flow diagram similar to the one provided in the FESS documents.
- The **Scenarios**. The FESS index provides a way to put automatically the prototype in the pre-conditions to play the selected use.

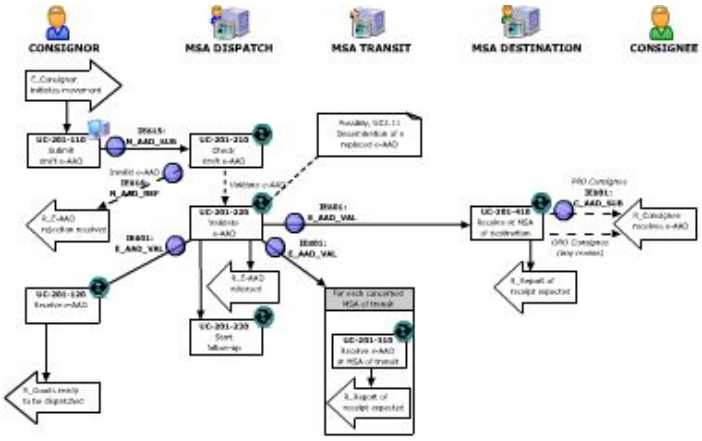


Figure 15: Flow diagram

To activate a scenario where the selected use case can be directly played, just click it in the provided list.

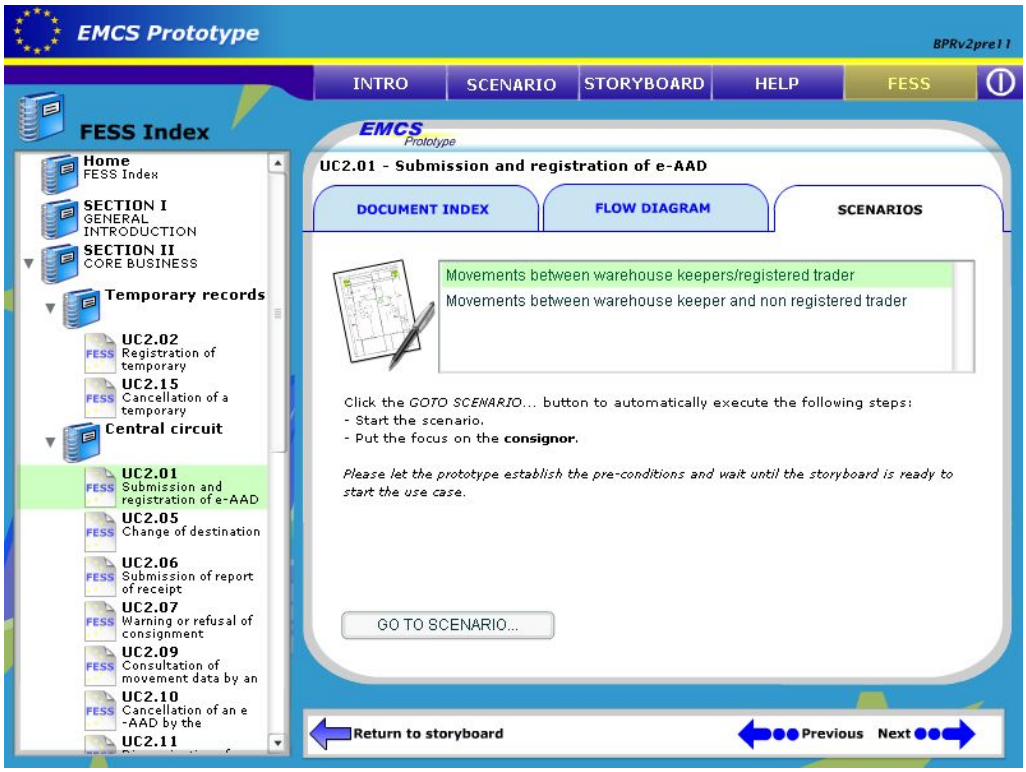


Figure 16: FESS Index (applicable scenarios)

The list of actions the prototype will automatically play is described. The "GO TO SCENARIO" button switches to the storyboard.

You must wait until the prototype is ready to play the selected use case. The “PROCESSING” icon indicates that the simulator is running and automatically performs actions that lead to the pre-conditions required to start the selected use case.