

<b>OWNER:</b> <b>CUST-DEV2</b>	<b>ISSUE DATE:</b> <b>13/12/2010</b>	<b>VERSION:</b> <b>1.01</b>
<p align="center"><b>TAXATION AND CUSTOMS UNION DG</b></p> <p align="center"><b>SUBJECT:</b></p> <p align="center"><b>DLV-0.1-1_Release Management</b></p>		
<p align="center"><b>CUST-DEV2</b> [REMOVED]</p>		

## DOCUMENT HISTORY

Version	Date	Description	Action (*)	Pages
0.02	13/08/2010	Submitted for Information	I	All
0.03	09/09/2010	Submitted for Review	/	/
0.04	21/10/2010	Resubmitted for Review		
0.11	25/10/2010	Internal Review After Implementation of Review Comment	R	All
0.12	25/10/2010	Submitted for Information		
0.13	03/11/2010	Internal Review	I/R	All
1.00	15/11/2010	Submitted for Acceptance		
1.01	12/12/2010	Re-Submitted for Acceptance	I/R	All

(\*) Action: I = Insert R = Replace

CUST-DEV2	REF: [REMOVED]
RELEASE MANAGEMENT	
INTRODUCTION	

## TABLE OF CONTENTS

DOCUMENT HISTORY	1
TABLE OF CONTENTS	2
LIST OF TABLES	3
TABLE OF FIGURES	4
1 INTRODUCTION	5
1.1 Scope	5
1.2 References	5
1.3 Acronyms and Abbreviations	6
2 PROCESS OVERVIEW	7
2.1 Process Goal	7
2.2 Release Management Boundaries	7
2.3 Release Management Link with Other Processes	8
3 ROLES AND RESPONSIBILITIES	9
4 RELEASE MANAGEMENT	10
4.1 Release Definition	10
4.2 Release Policy	10
4.3 Release Process	14
4.4 Emergency Releases	20
4.5 Output	20
4.6 Exit Criteria	20

CUST-DEV2	REF: [REMOVED]
RELEASE MANAGEMENT	
INTRODUCTION	

**LIST OF TABLES**

Table 1-1: Reference documents..... 5

Table 1-2: Acronyms and Abbreviations ..... 6

Table 3-1: Roles and Responsibilities..... 9

CUST-DEV2	REF: [REMOVED]
RELEASE MANAGEMENT	
INTRODUCTION	

# TABLE OF FIGURES

Figure 4-1: Release Management for Applications..... 15

Figure 4-2: Release Management for Specifications ..... 18

CUST-DEV2	REF: [REMOVED]
RELEASE MANAGEMENT	
INTRODUCTION	

# 1 INTRODUCTION

## 1.1 Scope

This document details CUST-DEV2's Release Management approach.

## 1.2 References

RD#	Title	Originator	Version	Date
[RD1]	TEMPO - Glossary of Terms (tmp-gen-gls)	DG TAXUD	2.04-EN	01-Aug-07
[RD2]	TEMPO - Release Management Reference Manual	DG TAXUD	1.40-EN	09-Mar-09
[RD3]	Framework Quality Plan	CUST-DEV2	00.02.00	
[RD4]	TEMPO – Testing Reference Manual (tmp-ref-tst)	DG TAXUD	1.10-EN	25-Apr-08
[RD5]	TEMPO - A3 document structure and layout template	DG TAXUD		

Table 1-1: Reference documents

CUST-DEV2	REF: [REMOVED]
RELEASE MANAGEMENT	
INTRODUCTION	

### 1.3 Acronyms and Abbreviations

Acronym or Abbreviation	See Annex 19 for the full list of Acronyms and Abbreviations. These below are the relevant abbreviations for the Release Management.
	Definition
DG TAXUD	Directorate General - Taxation and Customs Union
FQP	Framework Quality Plan
CAB	Change Advisory Board
CDA	Centrally Developed Application
CT	Conformance Test
CTP	Conformance Test Protocol
DQR	Delivery Qualification Report
ECG	Electronic Customs Group
FAT	Factory Acceptance Test
NA	National Administration
ITSM	IT Service management
PSAT	PreSite Acceptance Test
RfA	Request for Action
SIR	System Investigation Request
TTA	Transit Test Application

Table 1-2: Acronyms and Abbreviations

CUST-DEV2	REF: [REMOVED]
RELEASE MANAGEMENT	
PROCESS OVERVIEW	

## 2 PROCESS OVERVIEW

### 2.1 Process Goal

Release Management is the process responsible for up-front planning, scheduling and successfully deploying changes (packaged as releases) to the DG TAXUD's production environment in a controlled and systematic way that limits negative impacts to the environment and business operations. The objective is to ensure that the integrity of the DG TAXUD environment is protected and that the correct components are released.

Release Management also contributes to the efficient introduction of changes by combining them into one release and deploying them together. The Release Management process (which covers the WP.8.1.6) also includes "emergency" releases (for high impact incidents that were resolved) that must go into the live environment immediately, and when necessary, also a Back-Out plan to roll back if the implementation of the release fails.

This process is used for both Specifications and Applications Software.

The tool used to support the Release Management process is:

- IBM Rational ClearCase for Release packaging.

### 2.2 Release Management Boundaries

Release Management includes:

- Release development;
- Performing FAT phase;
- Supporting pSAT and SAT phases on request;
- Development (build) / Bug Fixing / Updates to source code;
- Producing and submitting specifications (for Systems);
- Supporting Release deployments into production.

Release Management excludes:

- The specific activities related to Change Management, which are discussed in the Change Management plan (see Annex 01 to the FQP [RD3]);
- The specific activities related to Configuration Management, which are discussed in the Configuration Management plan (see Annex 02 to the FQP [RD3]);
- The activities related to the deployment of Releases into Production.

*Note: There is a strong link between Change / Release and Configuration Management as explained in the section below.*

CUST-DEV2	REF: <b>[REMOVED]</b>
RELEASE MANAGEMENT	
PROCESS OVERVIEW	

## 2.3 Release Management Link with Other Processes

### 2.3.1 Change Management

Release Management contributes to the efficient introduction of changes by combining them into one release and deploying them together. Therefore the Change Management process interfaces with the Release Management process for the deployment of the changes (perform acceptance tests, authorise deployment and deploy change).

CUST-DEV2 Change Management team has a coordinating role during the release of the changes.

### 2.3.2 Configuration Management

After the successful acceptance tests and deployment of a change, the Configuration Management Database and the Change Record are updated. The Service Desk is informed and all the related problems and incidents are closed.



CUST-DEV2	REF: [REMOVED]
RELEASE MANAGEMENT	
ROLES AND RESPONSIBILITIES	

### 3 ROLES AND RESPONSIBILITIES

Role	Responsibility
CUST-DEV2 Release Manager	The CUST-DEV2 Release Manager is responsible for: <ul style="list-style-type: none"> <li>Coordinating the releases of applications and specifications;</li> <li>This role can also be performed by the Change Manager and the Configuration Manager.</li> </ul>
CUST-DEV2 Development Team	The CUST-DEV2 Development Team prepares the Releases Packages and provides all required information for installation instructions and release notes.
CUST-DEV2 Test Team Lead	The CUST-DEV2 Test Team Lead is responsible for: <ul style="list-style-type: none"> <li>Managing the Test Team during the FAT phase;</li> <li>Providing pSAT and SAT support on request;</li> <li>Reporting to the Release Manager regarding application releases.</li> </ul>
CUST-DEV2 Specifications Team Lead	The CUST-DEV2 Specifications Team Lead is responsible for: <ul style="list-style-type: none"> <li>Managing the Specifications Team;</li> <li>Reporting to the Release Manager regarding specification releases.</li> </ul>

Table 3-1: Roles and Responsibilities

*Note: all roles involved in this process are mapped to the Organisation Chart functions in Annex 07 – Organisation Chart.*

CUST-DEV2	REF: [REMOVED]
RELEASE MANAGEMENT	
RELEASE MANAGEMENT	

## 4 RELEASE MANAGEMENT

### 4.1 Release Definition

A release is a collection of new or changed Configuration Items (CIs) which are tested and introduced into the CUST-DEV2 applications (the deployment into Production will be under the responsibility of the ITSM Contractor). It is defined by the RfCs that it implements. A release must be planned carefully in advance and DG TAXUD IT must approve any release and all milestones leading to that release.

The success and failure of the releases will be measured. Measurements shall include incidents related to a release in the period following a release. The analysis will:

- Include an assessment of the impact on the business;
- Cover IT operations and support staff resources;
- Provide input to a plan for improving the service of DG TAXUD.

### 4.2 Release Policy

This section defines the policy that shall be applied to release a deliverable.

#### 4.2.1 Introduction

The main role of the Release Policy is to define the frame of the releases, in line with the Service Levels to be achieved. It also provides guidance on the rules for deploying software on the live environment, and defines the roles and responsibilities of all stakeholders of the Release Management process. This last point is described in section 4.3.

In the context of CUST-DEV2, the release policy falls under the responsibility of DG TAXUD. However, CUST-DEV2 will help DG TAXUD in the application of such policy and its involvement will be more or less important according to the following criteria:

- **Existing applications:** The release policy of existing applications will be taken over as existing under CUST-DEV1. Any modifications to these policies should be duly reported in the documentation attached to the applications; they will be further elaborated as required.
- **New applications:** the release policy of applications developed by CUST-DEV2 will be created by CUST-DEV2 and submitted for Review and Acceptance to DG TAXUD for each application. It will be based on the criteria presented in the following section and documented in a Release Planning

CUST-DEV2	REF: [REMOVED]
RELEASE MANAGEMENT	
RELEASE MANAGEMENT	

## 4.2.2 Release policy criteria

### 4.2.2.1 Naming and numbering

This aspect is described in the Configuration Management Process (see Annex 02 to the FQP [RD3]).

### 4.2.2.2 Definition of Major and Minor Releases

CUST-DEV2 will adhere to the following ITIL definitions for Major / Minor / Emergency fix:

- **Major** software releases and hardware upgrades, normally containing large areas of new functionality, some of which may make intervening fixes to problems redundant. A major upgrade or release usually supersedes all preceding minor upgrades, releases and emergency fixes;
- **Service Packs / Patches** - Minor software releases and hardware upgrades, normally containing small enhancements and fixes, some of which may have already been issued as emergency fixes. A minor upgrade or release usually supersedes all preceding emergency fixes;
- **Hot Fixes** - Emergency software and hardware fixes, normally containing the corrections to a small number of known problems.

In addition to this, a release should be defined as major if:

- Training is involved;
- Roll-back is not possible;
- The database is impacted;
- Platform change is involved;
- Installation of the new release requires a previous major release to be uninstalled.

### 4.2.2.3 Frequency

As a guideline, the frequency for major and minor releases should be defined a year in advance, allowing for better management. That frequency can be revised at the end of each year for the following year.

In all cases, frequencies are agreed by DG TAXUD and CUST-DEV2 will plan accordingly.

Every release that doesn't fall into the frequency defined / planned should be treated as an emergency release (according to the emergency procedure as defined in the Change Management procedure of Annex 01 of the FQP).

Specific delivery schedules/dates will be agreed with DG TAXUD and the CUST-DEV2 Service Delivery Manager.

The frequency of a delivery of a Release to DG TAXUD is dependent on the type of work that is being released.

CUST-DEV2	REF: [REMOVED]
RELEASE MANAGEMENT	
RELEASE MANAGEMENT	

Where possible, different change requests impacting the same source objects will be grouped as much as possible in a release, taking into account the capacity planning.

Large projects can be split in different releases (e.g. in case the project impacts different functional domains).

The release frequency should be followed as much as possible. However, in exceptional cases (i.e. Emergency releases as explained above) the frequency schedule will not be applicable and CUST-DEV2 & DG TAXUD will need to mutually agree on the timing of the release.

#### **4.2.2.4 Business critical periods**

Each application has different business critical periods. Those should be identified and documented at the take-over of the application.

#### **4.2.2.5 Deliverables**

DG TAXUD CPT decides on the actual content of each release.

The list of the deliverables which must be part of a release must be available in the Specific Contracts (SC), QTM Actions or RfAs.

Minimum requirements should include:

- Complete installation guide, including the configuration settings;
- Complete list of changes applied to the release;
- Complete Release Note.

#### **4.2.2.6 Template for release documentation**

The tools to be used are defined in the Specific Contract (SC), the QTM Action or the RfA. The documents delivered in MS Word format shall follow the rules defined in the TEMPO "A3 document structure and layout template" document ([RD5]).

#### **4.2.2.7 Back-Out plans**

A back-out plan can be produced for a Release to document the actions to be taken to restore the service should the rollout of a Release fail, either partially or totally. The back-out plan is not systematically requested, but if required it must be completed before a release and will be either accepted or approved to be moved into production. The back-out plan will include not only details of the actions that must be followed to back-out a release, but it will also include the criteria that must be met in order for the back-out plan to be executed, including a description of correct functionality and acceptable known errors. For Releases with multiple changes, it must be confirmed that the back-out plans for each Change within a Release operate together before an acceptable back-out plan can be created.

CUST-DEV2 will always test the back-out plans before submitting the release for deployment.

DG TAXUD can however decide not to test a back-out plan.

#### **4.2.2.8 Technical review of architecture and design**

The architecture and design of all releases must be validated before authorisation. This

CUST-DEV2	REF: [REMOVED]
RELEASE MANAGEMENT	
RELEASE MANAGEMENT	

validation process should take place at an early stage, ideally before the development process begins.

#### **4.2.2.9 Release Management Control Process**

All relevant aspects of CUST-DEV2's Release Management process will be reported during the monthly meetings (BMM). Other controls may be defined in the Specific Contract (SC), the QTM Action or the RfA.

CUST-DEV2	REF: <b>[REMOVED]</b>
RELEASE MANAGEMENT	
RELEASE MANAGEMENT	

### 4.3 Release Process

CUST-DEV2 distinguishes between Release Management for Applications and Release Management for Specifications. The sections below will detail the processes steps for both scopes:

### 4.3.1 Release Management for Applications Process Flow

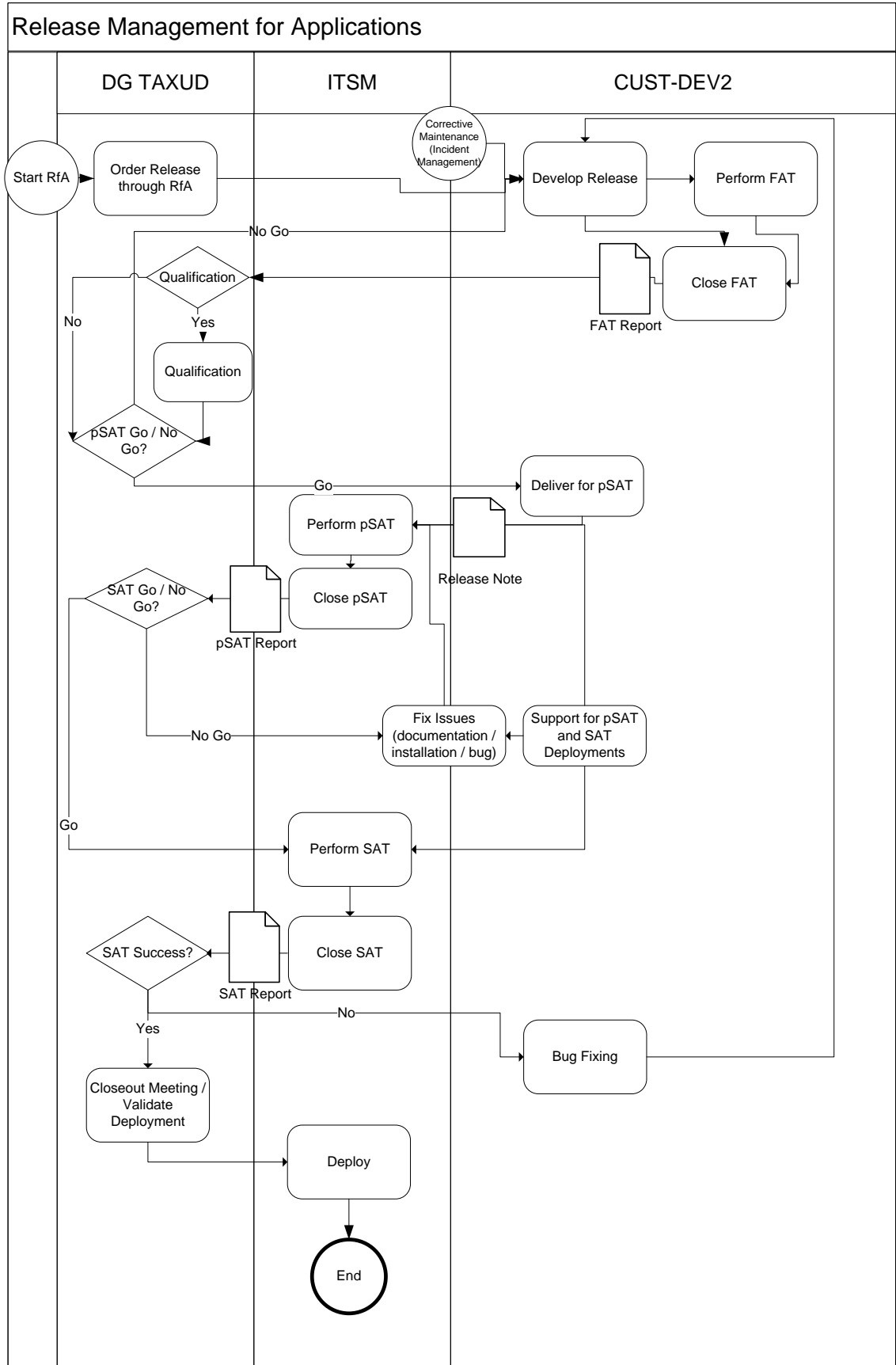


Figure 4-1: Release Management for Applications

CUST-DEV2	REF: [REMOVED]
RELEASE MANAGEMENT	
RELEASE MANAGEMENT	

#### 4.3.1.1 Procedure

Step	Release Management for Applications
<b>1</b>	<b>Develop Release</b>
<i>Input</i>	Release RfA from DG TAXUD Corrective Maintenance Required
<i>Description</i>	CUST-DEV2 develops the requested release conforming to the RfA (DG TAXUD) / resulting from Corrective Maintenance. Please refer to the Application Development Reference Manual for more details (CUD2-FC-DLV-0.1-1-Annex 17-Application Development-v1.00_SfA).
<i>Output</i>	Release ready for FAT testing
<b>2</b>	<b>Perform FAT</b>
<i>Input</i>	Successful Unit Testing / Integration testing (pFAT) Acceptance Test Plan (ATP) Success Criteria
<i>Description</i>	CUST-DEV2 performs the Factory Acceptance Testing, conforming to TEMPO. A zero-tolerance policy on bugs is in place: no-go until all known bugs have been fixed. If FAT is not successful, there is a 0 tolerance. The full development of the release needs to be resumed.
<i>Output</i>	FAT Executed
<b>3</b>	<b>Close FAT</b>
<i>Input</i>	FAT Results
<i>Description</i>	CUST-DEV2 will write the FAT Report based on the FAT Results and the success criteria as defined in the ATP.
<i>Output</i>	FAT Report (as input into Release Notes) ATP Success Criteria Assessed
<b>4</b>	<b>Qualification</b>
<i>Input</i>	Fat Report ATP Success Criteria Assessed
<i>Description</i>	DG TAXUD can decide to execute a qualification step. Qualification means that several particular aspects of functions of a software are tested. the testing of one or several particular aspects or functions of software
<i>Output</i>	N/A



CUST-DEV2	REF: [REMOVED]
RELEASE MANAGEMENT	
RELEASE MANAGEMENT	

<b>5</b>	<b>Deliver for pSAT</b>
<i>Input</i>	Formal Acceptance from DG TAXUD
<i>Description</i>	<p>DG TAXUD will validate pSAT success and formally agree the Go for delivery to ITSM.</p> <p>CUST-DEV2 will prepare the release notes associated to the Delivery and will provide the package to ITSM, along with the installation instructions.</p>
<i>Output</i>	<p>Delivered Package</p> <p>DQR / Release Note</p>
<b>6</b>	<b>Support pSAT and SAT Deployments</b>
<i>Input</i>	Support Request
<i>Description</i>	<p>CUST-DEV2 supports the pSAT and the SAT deployments if required by ITSM. This can be performed on-site (as a mission) or remotely depending on the nature of the Incident. This is done in coordination with ITSM.</p> <p>If pSAT failed, ITSM will investigate whether the issues come from the Release Notes, instructions for installations or other sources. If CUST-DEV2 must provide support to fix the issues in pSAT, ITSM will request support from the team.</p>
<i>Output</i>	Support Service Report (if support provided on site)
<b>7</b>	<b>Bug Fixing</b>
<i>Input</i>	Bug Reports from SAT
<i>Description</i>	<p>CUST-DEV2 performs bug fixes that have come out of the SAT phases.</p> <p>Qualification testing on bug fix has to take place to ensure that the release is ready for deployment into production.</p>
<i>Output</i>	Fix ready for release packaging.

### 4.3.2 Release Management for Specifications – Process Flow

#### 4.3.2.1 Process Flow

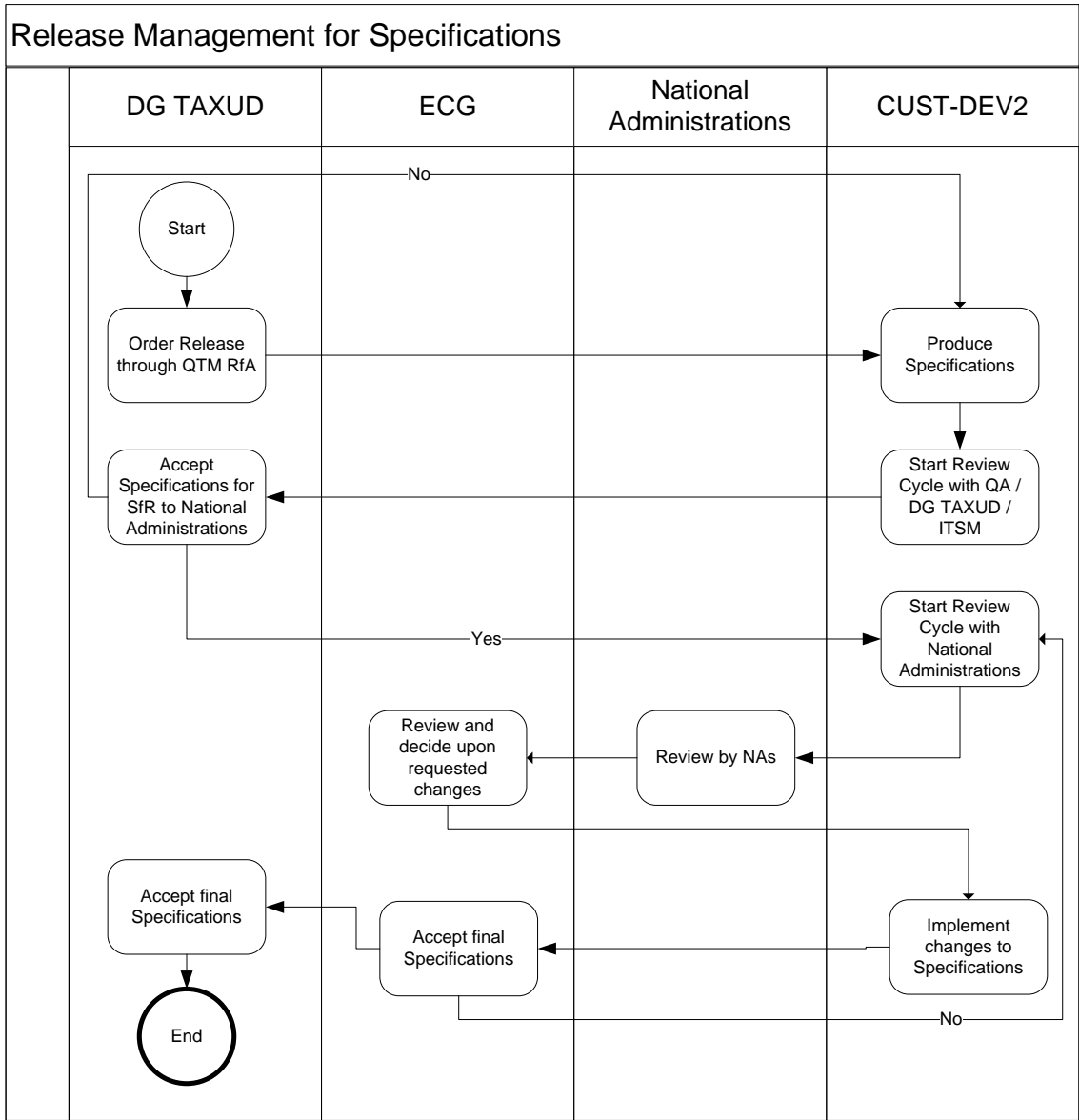


Figure 4-2: Release Management for Specifications

CUST-DEV2	REF: [REMOVED]
RELEASE MANAGEMENT	
RELEASE MANAGEMENT	

#### 4.3.2.2 Procedure

Step	Release Management for Specifications
<b>1</b>	<b>Produce Specifications</b>
<i>Input</i>	QTM RfA from DG TAXUD
<i>Description</i>	CUST-DEV2 develops the requested release conforming to the QTM RfA from DG TAXUD.
<i>Output</i>	Specifications ready for Review & Acceptance by DG TAXUD
<b>2</b>	<b>Review Cycle with QA / DG TAXUD / ITSM</b>
<i>Input</i>	Ready for Review Specifications
<i>Description</i>	CUST-DEV2 and DG TAXUD follow the internal review cycle for the Specifications
<i>Output</i>	Review comments Author Positions Accepted Specifications
<b>3</b>	<b>Review Cycle with National Administrations</b>
<i>Input</i>	Internally Accepted Specifications
<i>Description</i>	If required that the National Administrations review the specifications (impact identified), DG TAXUD, CUST-DEV2 and the National Administrations follow the review cycle for the Specifications. Note: Not all applications specifications are sent to the Member States
<i>Output</i>	Review comments from the National Administrations
<b>4</b>	<b>Review and decide upon requested changes</b>
<i>Input</i>	Review Comments from National Administrations
<i>Description</i>	During the ECG meeting, each requested change is discussed and decided whether to implement it.
<i>Output</i>	Final set of review comments from National Administrations

CUST-DEV2	REF: [REMOVED]
RELEASE MANAGEMENT	
RELEASE MANAGEMENT	

<b>5</b>	<b>Implement changes to Specifications</b>
<i>Input</i>	Review Comments from ECG meeting
<i>Description</i>	CUST-DEV2 implement the review comments from the ECG meeting in the Specifications.
<i>Output</i>	Final version of the Specifications
<b>6</b>	<b>Accept the final version of the Specifications</b>
<i>Input</i>	Final version of the Specifications
<i>Description</i>	The ECG and DG TAXUD accept the final version of the Specifications. If they are not accepted the review cycle must start again until they are accepted.
<i>Output</i>	Accepted Specifications RFA Submitted

#### 4.4 Emergency Releases

For the Release Emergency process please refer to the Emergency Change Process in Annex 01 – Change Management Process

#### 4.5 Output

The procedure produces the following outputs:

- Specifications;
- FAT Report ( only for Applications).

#### 4.6 Exit Criteria

The exit criteria for the Release Management Procedure are:

- FAT report for Applications is accepted;
- pSAT is successful;
- SAT is successful;
- Final version of Specifications is accepted.