

TAXUD/A4 – TARIC3 – Output Bridge Performance Test Plan	
	Ref: TARIC3-OUB-PTP

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TAXUD/A4 – TARIC3 – Output Bridge Performance Test Plan	
INTRODUCTION	Ref: TARIC3-OUB-PTP
OBJECTIVE OF THIS DOCUMENT	

1. INTRODUCTION

1.1. Objective of this document

This document defines the test cases needed for the testing activities for the Output Bridge Satellite Module of TARIC3. The aim of these testing activities would be to assess the current performances of the Satellite application under normal conditions and assess the performance of the system under load and stress testing executions.

The document should be used to guide the execution of the tests.

1.2. Scope of the document

This document contains all the test cases required to test the Output Bridge Satellite Module of TARIC3 which would allow having a comprehensively test coverage of the performance of the module.

1.3. Structure of this document

This document has three chapters after this introduction chapter. Chapter 2 describes the test environment. Chapter 3 describes the test cases to be executed. Finally, chapter 4 gives the template of the test report form that must be filled in when the Output Bridge Satellite application is tested.

1.4. Intended audience

A first part of the intended audience is people responsible to write the TARIC3-OUB performance test plan as well as the ones involved in its execution.

The second part is the representatives of the user community. They can use this document as a reference to validate that the related test plan is covering all key point aspects of the application performance testing regarding functional specifications.

1.5. Abbreviations and acronyms

CDCO	Centrally Developed, Centrally Operated
DG TAXUD	Directorate General Taxation and Customs Union
SQL	Structured Query Language
OUB	Output Bridge Satellite Module of TARIC3
UNIX	Unix operating system
XML	eXtensible Markup Language
PTP	Performance Test Plan

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REFERENCE DOCUMENTS	

PTS	Performance Test Scenarios
FS	Functional Specifications
FTS	Functional Test Scenarios

Table 1: Abbreviations and acronyms

1.6. Reference documents

[TARIC3-OUB-FTS]	“TARIC3 Output Bridge– Functional Test Scenarios”, version 1.00-EN.
[TARIC3-OUB-PM]	“TARIC3 Output Bridge– Process Model”, version 1.00-EN.

Table 2: Reference documents

1.7. Applicable documents

[TARIC3-OUB-PTS]	“TARIC3 Output Bridge– Performance Test Scenarios”, version 0.10-EN.
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Table 3: Applicable documents

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TEST REFINEMENTS	Ref: TARIC3-OUB-PTP
TEST CASE GUIDELINES	

2. TEST REFINEMENTS

2.1. Test case guidelines

2.1.1. Test scenario coverage

The performance test plan covers the performance test scenarios defined in [TARIC3-OUB-PTS]. For each performance test scenario, one or several test cases are defined. The table in Annex [1](#) clearly identifies which test cases implement each test scenario.

2.1.2. Test case structure

A test case is composed of one or more scripts that are specified in the following way:

<u>Name:</u>	The name of the test case to be executed.
<u>Purpose:</u>	A short description of what is performed by the test case.
<u>Precondition:</u>	All the required conditions that must be fulfilled before the test case is executed. Please note that the default precondition is mentioned only once.
<u>Content:</u>	The description of the actions to be performed, together with the data to be used, when deemed relevant.
<u>Output:</u>	The time the operator has to register and check.

2.2. Test data set

2.2.1. User data set

For testing purposes, twenty users must be defined and all must have all the rights applicable for a DG TAXUD user. The user id should have the followed convention: T3-UXX being XX a numeric value from 01 up to 21.

Please note also that for all users, the password must be identical to the user id.

2.2.2. TARIC reference data set

A copy of the TARIC production database will be used as TARIC3 reference data set, in order to have full control of the contents of this data set.

Output Bridge reference data as receivers, destination filters and transmission items must exist for the execution of the OUB Performance Test Plan. For testing purposes, the existent reference data of the OUB would be modified according specific characteristics needed to recreate the scenarios.

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TEST DATA SET	

Below, it is the specification of the input messages that must be sent to the system to setup those testing reference data. All transactions must be executed without error. The user who sends this message must have sufficient privileges to manage reference data.

The list of transmission items must exist in the system and should include all the items included in [[TARIC3-OUB-PM](#)].

In order to insert the reference data needed, meaning: the list of transmission items mentioned above, the receivers (*init_receivers_01.xml*) and destination filters (*init_destination_filters_01.xml*), the tester may execute the following command:

```
$ ./start_init.sh
```

Message: **init_destination_filters_01.xml**

Precondition: This message should be processed right after the insertion of the copied records from the production database.

Content: **Transaction 1:** Insert the destination filters listed below with *for.update.extract='1'*. All transmissions items have been specified.

- id='AT', name='Austria', one language included.
- id='BE', name='Belgium', seven (7) languages included.
- id='BU', name='Bulgaria', one language included.
- Id='CC', name='Candidate countries', fourteen (14) languages included.
- id='CY', name='Cyprus', one language included.
- id='CZ', name='Czech Republic', one language included.
- id='DE', name='Germany', one language included.
- id='DK', name='Denmark', one language included.
- id='DS', name='Data dissemination', one language included.
- id='EE', name='Estonia', one language included.
- id='EL', name='Greece', one language included.
- id='ES', name='Spain', one language included.
- id='FI', name='Finland', one language included.
- id='FR', name='France', one language included.

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TEST DATA SET	

- id='GB', name='Great Britain', one language included.
- id='HR', name='Croatia', one language included.
- id='HU', name='Hungary', one language included.
- id='IE', name='Ireland', one language included.
- id='IT', name='Italy', one language included.
- id='LT', name='Lithuania', one language included.
- id='LV', name='Latvia', one language included.
- id='LU', name='Luxembourg', one language included.
- id='MT', name='Malta', one language included.
- id='NL', name='Netherlands', one language included.
- id='PL', name='Poland', one language included.
- id='PT', name='Portugal', one language included.
- id='SE', name='Sweden', one language included.

Expected output:

The message is composed of transactions that reply to the original transactions:

Reply to all the transactions: Status ok.

Message:

init_receivers_01.xml

Precondition:

This message should be processed right after the insertion of the copied records from the production database.

Content:

Insert the following receivers with same format='XML':

Transaction 1. id='AT', description='Austria-X'

Transaction 2. id='BE', description='Belgium-X'

Transaction 3. id='BG', description='Bulgaria-X'

Transaction 4. id='CY', description='Cyprus-X'

Transaction 5. id='CZ', description='Czech Republic-X'

Transaction 6. id='DE', description='Germany-X'

Transaction 7. id='DK', description='Denmark-X'

Transaction 8. id='EL', description='Greece-X'

Transaction 9. id='ES', description='Espana-X'

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TEST APPROACH	

Transaction 10. id='ET', description='Estonia-X'

Transaction 11. id='FI', description='Finland-X'

Transaction 12. id='FR', description='France-X'

Transaction 13. id='GB', description='Great Britain-X'

Insert the following receivers with same format= 'EDIFACT':

Transaction 14. id='HR', description='Croatia-E2'

Transaction 15. id='HU', description='Hungary-E2'

Transaction 16. id='IE', description='Ireland-E2'

Transaction 17. id='IT', description='Italy-E2'

Transaction 18. id='LV', description='Latvia-E2'

Transaction 19. id='LT', description='Lithuania-E2'

Transaction 20. id='LU', description='Luxembourg-E3'

Transaction 21. id='MT', description='Malta-E3'

Transaction 22. id='NL', description='Netherlands-E3'

Transaction 23. id='PL', description='Poland-E3'

Transaction 24. id='PT', description='Portugal-E3'

Transaction 25. id='SE', description='Sweden-E3'

Insert the following receivers with formats 'XML' and 'EDIFACT':

Transaction 26. id='CC', description='Candidate countries'

Transaction 27. id='DS', description='Data dissemination'

**Expected
output:**

The message is composed of transactions that reply to the original transactions:

Reply to all the transactions: Status ok.

2.3. Test Approach

The tests are in the form of single test cases intended for manual execution and manual recording of the results unless otherwise stated.

The results will be compared with the baseline.

Some tests need to simulate a background activity. This background activity will be simulated through a script.

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TEST EXECUTION	

2.4. Test execution

2.4.1. All Test cases

- Configure the `srv_tst.properties` in the base directory
- Configure the `srv_tst.properties` in the `CDCO_simulation` directory
- Execute the `./startPerf.sh` script;
- Verify the extraction data details report and take into account the job start and end date to establish the real time frame used by the system to perform the action.

2.5. Preliminary steps

2.5.1. Creation of the baseline

As mentioned in [[TARIC3-OUB-PTS](#)], in order to create the baseline each critical and/or priority action of the Output Bridge Satellite Application will be performed once and one by one. Obtained time for each of these actions will be reported to become a metric for the performance testing but will never be considered as an acceptance criteria.

The following actions from the OUB will be taken into account:

- Oub_base_1: Execution of a full extraction job with active date='2008-12-31T00:00:00' and archive date='2008-12-01T00:00:00'. One single language (id='EN') and one single format='XML' have been specified.
- Oub_base_2: Execution of a full extraction job with active date='2008-12-31T00:00:00' and archive date='2008-12-01T00:00:00'. One single language (id='EN') and one single format='EDIFACT2' have been specified.
- Oub_base_3: Execution of a full extraction job with active date='2008-12-31T00:00:00' and archive date='2008-12-01T00:00:00'. One single language (id='EN') and one single format='EDIFACT3' have been specified.
- Oub_base_4: Execution of an incremental extraction job with one day as time frame. Date/time from= '2009-02-03T00:00:00' to='2009-02-04T00:00:00' (24 hours time frame). One destination filter with id=='BG' and one receiver with id=='BG' (format='XML') have been specified.
- Oub_base_5: Execution of an incremental extraction job with one day as time frame. Date/time from= '2009-02-03T00:00:00' to='2009-02-04T00:00:00' (24 hours time frame). One destination filter with id=='HU' and one receiver with id=='HU' (format='EDIFACT2') have been specified.
- Oub_base_6: Execution of an incremental extraction job with one day as time frame. Date/time from= '2009-02-03T00:00:00' to='2009-02-04T00:00:00' (24 hours time frame). One destination filter with id=='PL' and one receiver with id=='PL' (format='EDIFACT3') have been specified.

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PRELIMINARY STEPS	

2.5.2. Creation of the background activity

Depending on the purpose of the test case, two types of background activities will be defined: TARIC3 CDCO and Output Bridge background activities.

Background TARIC3 CDCO activities

This background activity is split in two steps:

First step:

The main user (who will be the one used by the tester to perform tests as they are described into test cases) launches a first initialization script. The goal of this script is to prepare the database for the others virtual users. Through this script all the needed reference data are created.

Once this script has been launched, the user is able to perform his test cases manually through the user interface.

Second step:

In order to simulate background activities of TARIC3 CDCO users, scripts will be created. The purpose of those scripts is to simulate basic CDCO activities which are:

- Insert a role regulation;
- Insert a goods nomenclature;
- Insert a measure (using the goods nomenclature and the regulation which have been previously inserted)
- Update a role regulation (the one which has been previously inserted);
- Update a goods nomenclature(the one which has been previously inserted);
- Update a measure(the one which has been previously inserted);
- Perform a query on regulations in order to obtain above 1000 results;
- Perform a query on goods nomenclatures in order to obtain above 1000 results;
- Perform a query on measures in order to obtain above 1000 results;
- Delete the inserted measure;
- Delete the inserted goods nomenclature;
- Delete the inserted role regulation.

Each script will be simulating background operations performed by a specific user. When several virtual users will be simulated, each user will launch its own script in parallel with others users.

Launching the background user activity scripts is done automatically in the main performance test script.

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PRELIMINARY STEPS	

Background TARIC3 Output Bridge Activities

The background activities are integrated with the main testing script and are launched transparently.

Technology used:

In order to be able to perform this background activity, a combination of “Unix Bourne Shell” scripts (.sh) and Ant files will be created and used. For the complete list of used files for the background activities on TARIC3 CDCO, refer to Annex [2](#).

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PERFORMANCE TESTING	

3. TEST CASES

For all the test cases, the tester must login inside TARIC3 as a user having the necessary profile to request an extraction data through the Output Bridge Satellite Application.

For testing purposes, all the destination filters included all the transmission items, besides, all the destinations filters have the flag *for.update.process* set to true.

3.1. Performance Testing

The test cases defined in this section cover the test scenarios under OUB-PTS-PERFORMANCE defined in [[TARIC3-OUB-PTS](#)].

<u>Name:</u>	Oub-perf-full-01a/Oub-perf-full-01b
<u>Purpose:</u>	Assess the average performance of the application when processing full data extractions without background activities, with one single receiver and destination filter and few languages considered (7).
<u>Precondition:</u>	The insertion of the reference data set should be successfully processed by the system.
<u>Content:</u>	<p>The message is composed of the following transactions:</p> <p><u>Step 1.</u> Through the <i>performance test script</i> of the Output Bridge Satellite application, launch an extraction operation with the following parameters:</p> <ul style="list-style-type: none"> - Active date='2009-01-01 T00:00:00'; seven (7) languages are specified; format='XML'. <p><u>Step 2.</u> Verify the execution time.</p> <p><u>Step 3.</u> Repeat steps 1 and 2 but with format='EDIFACT2'.</p>
<u>Expected Output:</u>	<p>Extraction done.</p> <p>Time taken by the system.</p>

<u>Name:</u>	Oub-perf-full-02a/ Oub-perf-full-02b
<u>Purpose:</u>	Assess the average performance of the application when processing full data extractions without background activities, with one single receiver and destination filter and with fourteen languages considered.
<u>Precondition:</u>	The insertion of the reference data set should be successfully processed by the system.
<u>Content:</u>	<p>The message is composed of the following transactions:</p> <p><u>Step 1.</u> Through the <i>performance test script</i> of the Output Bridge</p>

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PERFORMANCE TESTING	

Satellite application, launch an extraction operation with the following parameters:

- Active date='2009-01-01 T00:00:00'; fourteen (14) languages are considered; format='XML'.

Step 2. Verify the execution time.

Step 3. Repeat steps 1 and 2 but with =‘EDIFACT2’.

Expected Output:

Action accepted and time taken by the system.

Name:

Oub-perf-full-03a/ Oub-perf-full-03b

Purpose:

Assess the average performance of the application when processing full data extractions without background activities, with one single receiver and destination filter and with all languages considered.

Precondition:

The insertion of the reference data set should be successfully processed by the system.

Content:

The message is composed of the following transactions:

Step 1. Through the *performance test script* of the Output Bridge Satellite application, launch an extraction operation with the following parameters:

- Active date='2009-01-01 T00:00:00'; all languages are considered (21); format='XML'.

Step 2. Verify the execution time.

Step 3. Repeat steps 1 and 2 but with format='EDIFACT2'.

Expected Output:

Action accepted and time taken by the system.

Name:

Oub-perf-incr-04a/ Oub-perf-incr-04b

Purpose:

Assess the average performance of the application when processing incremental data extractions without background activities, with one single receiver and destination filter and with few languages considered (7).

Precondition:

The insertion of the reference data set should be successfully processed by the system.

Content:

The message is composed of the following transactions:

Step 1. Through the *performance test script* of the Output Bridge Satellite application, launch an extraction operation with the

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PERFORMANCE TESTING	

following parameters:

- Date/time from= '2009-01-05T00:00:00' to='2009-01-06T00:00:00; destination filter with seven languages (id='BE'), all transmission items considered and no exclusions should be specified. Receiver='BG' (format='XML').

Step 2. Verify the execution time.

Step 3. Repeat steps 1 and 2 but with a receiver with format='EDIFACT3' (Receiver='LU').

Expected Output:

Action accepted and time taken by the system.

Name:

Oub-perf-incr-05a/ Oub-perf-incr-05b

Purpose:

Assess the average performance of the application when processing incremental data extractions without background activities, with one single receiver and destination filter and with twelve languages considered (14).

Precondition:

The insertion of the reference data set should be successfully processed by the system.

Content:

The message is composed of the following transactions:

Step 1. Through the *performance test script* of the Output Bridge Satellite application, launch an extraction operation with the following parameters:

- Date/time from= '2009-01-05T00:00:00' to='2009-01-06T00:00:00; a destination filter with all transmission items and fourteen languages considered (id='CC'); receiver with format='XML' (id='AT').

Step 2. Verify the execution time.

Step 3. Repeat steps 1 and 2 but with a receiver with format='EDIFACT3' (Receiver='MT').

Expected Output:

Action accepted and time taken by the system.

Name:

Oub-perf-incr-06a/ Oub-perf-incr-06b

Purpose:

Assess the average performance of the application when processing incremental data extractions without background activities, with one single receiver and destination filter and with all languages considered (21 languages).

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Precondition: The insertion of the reference data set should be successfully processed by the system.

Content: The message is composed of the following transactions:

Step 1. Through the *performance test script* of the Output Bridge Satellite application, launch an extraction operation with the following parameters:

- Date/time from= '2009-01-05T00:00:00' to='2009-01-06T00:00:00'; a destination filter with all transmission items and all languages considered (id='DS'); receiver with format='XML' (id='CZ').

Step 2. Verify the execution time.

Step 3. Repeat steps 1 and 2 but with receiver with format='EDIFACT3' (Receiver='NL').

Expected Output: Action accepted and time taken by the system.

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LOAD TESTING	

3.2. Load Testing

3.2.1. Normal Load Condition

The test cases defined in this section cover the test scenarios under OUB-PTS-NORMAL-LOAD defined in [[TARIC3-OUB-PTS](#)].

<u>Name:</u>	Oub-load-norm-01
<u>Purpose:</u>	<p>Assess the performance of the application when it is exposed to normal load conditions with one single user performing operations in the background.</p> <p>Background activities are performed outside the Satellite application meaning running in TARIC3 CDCO.</p>
<u>Precondition:</u>	The insertion of the reference data set should be successfully processed by the system.
<u>Content:</u>	<p>The message is composed of the following transactions:</p> <p><u>Step 1.</u> Start the script simulating the background activities of one user working simultaneously.</p> <p><u>Step 2.</u> Through the <i>performance test script</i> of the Output Bridge Satellite application, launch an extraction operation with the following parameters:</p> <ul style="list-style-type: none"> - Active date='2009-01-01 T00:00:00'; archive date='2008-12-31 T00:00:00'. One language is considered and the formats specified are 'XML', 'EDIFACT2' and 'EDIFACT3'. <p><u>Step 3.</u> Verify the execution time.</p>
<u>Expected Output:</u>	Action accepted and time taken by the system.

<u>Name:</u>	Oub-load-norm-02
<u>Purpose:</u>	<p>Assess the performance of the application when it is exposed to peak load conditions, in this case with 5 simultaneous users working in background.</p> <p>Background activities are performed outside the Satellite application meaning running in TARIC3 CDCO.</p>
<u>Precondition:</u>	The insertion of the reference data set should be successfully processed by the system.
<u>Content:</u>	<p>The message is composed of the following transactions:</p> <p><u>Step 1.</u> Start the script simulating the background activities of 5 users working simultaneously.</p>

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LOAD TESTING	

Step 2. Through the *performance test script* of the Output Bridge Satellite application, launch an extraction operation with the following parameters:

- Active date='2009-01-01 T00:00:00'; archive date='2008-12-31 T00:00:00'. One language is considered and the formats specified are 'XML', 'EDIFACT2' and 'EDIFACT3'.

Step 3. Verify the execution time.

Expected Output:

Action accepted and time taken by the system.

Name:

Oub-load-norm-03

Purpose:

Assess the performance of the application when it is exposed to normal load conditions with one single user performing operations in the background.

Background activities are performed outside the Satellite application meaning running in TARIC3 CDCO.

Precondition:

The insertion of the reference data set should be successfully processed by the system.

Content:

The message is composed of the following transactions:

Step 1. Start the script simulating the background activities of one user working simultaneously.

Step 2. Through the *performance test script* of the Output Bridge Satellite application, launch an extraction operation with the following parameters:

- Date/time from= '2009-01-05T00:00:00' to='2009-01-06T00:00:00'; destination filter= 'CY' and receiver='CC'.

Step 3. Verify the execution time.

Expected Output:

Action accepted and time taken by the system.

Name:

Oub-load-norm-04

Purpose:

Assess the performance of the application when it is exposed to peak load conditions, in this case with 5 simultaneous users working in background.

Background activities are performed outside the Satellite application meaning running in TARIC3 CDCO.

Precondition:

The insertion of the reference data set should be successfully

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processed by the system.

Content:

The message is composed of the following transactions:

Step 1. Start the script simulating the background activities of 5 users working simultaneously.

Step 2. Through the *performance test script* of the Output Bridge Satellite application, launch an extraction operation with the following parameters:

- Date/time from= '2009-01-05T00:00:00' to='2009-01-06T00:00:00'; destination filter= 'DE' and receiver='DS'.

Step 3. Verify the execution time.

Expected Output:

Action accepted and time taken by the system.

3.2.2. Peak Load Condition

The test cases defined in this section cover the test scenarios under OUB-PTS-PEAK-LOAD defined in [[TARIC3-OUB-PTS](#)].

Name:

Oub-load-full-01

Purpose:

Assess the performance of the application when it is exposed to peak load conditions, in this case with a parallel incremental extraction execution being run in background.

Precondition:

The insertion of the reference data set should be successfully processed by the system.

Content:

The message is composed of the following transactions:

Step 1. Start the script simulating one-year incremental data extraction execution running in background.

Step 2. Through the *performance test script* of the Output Bridge Satellite application, launch an extraction operation with the following parameters:

- Active date='2009-01-01 T00:00:00'; archive date='2008-12-31 T00:00:00'. Formats= 'XML', 'EDIFACT2' and 'EDIFACT3'; all languages are specified.

Step 3. Verify the execution time.

Expected Output:

Action accepted and time taken by the system.

Name:

Oub-load-full-02

TAXUD/A4 – TARIC3 – Output Bridge Performance Test Plan	
TEST CASES	Ref: TARIC3-OUB-PTP
LOAD TESTING	

Purpose: Assess the performance of the application when it is exposed to peak load conditions, in this case with 10 simultaneous users working in background.

Precondition: The insertion of the reference data set should be successfully processed by the system.

Content: The message is composed of the following transactions:

Step 1. Start the script simulating the background activities of 10 users working simultaneously.

Step 2. Through the *performance test script* of the Output Bridge Satellite application, launch an extraction operation with the following parameters:

- Active date='2009-01-01 T00:00:00'; archive date='2008-12-31 T00:00:00'; formats= 'XML', 'EDIFACT2' and 'EDIFACT3'; all languages are specified.

Step 3. Verify the execution time.

Expected Output: Action accepted and time taken by the system.

Name: Oub-load-full-03

Purpose: Assess the performance of the application when it is exposed to peak load conditions, in this case with 15 simultaneous users working in background.

Precondition: The insertion of the reference data set should be successfully processed by the system.

Content: The message is composed of the following transactions:

Step 1. Start the script simulating the background activities of 15 users working simultaneously.

Step 2. Through the *performance test script* of the Output Bridge Satellite application, launch an extraction operation with the following parameters:

- Active date='2009-01-01 T00:00:00'; archive date='2008-12-31 T00:00:00'; formats= 'XML', 'EDIFACT2' and 'EDIFACT3'; all languages are specified.

Step 3. Verify the execution time.

Expected Output: Action accepted and time taken by the system.

Name: Oub-load-full-04

TAXUD/A4 – TARIC3 – Output Bridge Performance Test Plan	
TEST CASES	Ref: TARIC3-OUB-PTP
LOAD TESTING	

Purpose: Assess the performance of the application when it is exposed to peak load conditions, in this case with 20 simultaneous users working in background.

Precondition: The insertion of the reference data set should be successfully processed by the system.

Content: The message is composed of the following transactions:

Step 1. Start the script simulating the background activities of 20 users working simultaneously.

Step 2. Through the *performance test script* of the Output Bridge Satellite application, launch an extraction operation with the following parameters:

- Active date='2009-01-01 T00:00:00'; archive date='2008-12-31 T00:00:00'; formats= 'XML', 'EDIFACT2' and 'EDIFACT3'; all languages are specified.

Step 3. Verify the execution time.

Expected Output: Action accepted and time taken by the system.

Name: Oub-load-incr-01

Purpose: Assess the performance of the application when it is exposed to peak load conditions, in this case with a parallel full extraction execution being run in background.

Precondition: The insertion of the reference data set should be successfully processed by the system.

Content: The message is composed of the following transactions:

Step 1. Start the script simulating a full data extraction execution running in background with active date='2009-01-01 T00:00:00' and archive date='2008-01-01 T00:00:00'.

Step 2. Through the *performance test script* of the Output Bridge Satellite application, launch an extraction operation with the following parameters:

- Date/time from= '2009-01-05T00:00:00' to='2009-01-06T00:00:00'; a destination filter id='DS'; receiver='DS'.

Step 3. Verify the execution time.

Expected Output: Action accepted and time taken by the system.

Name: Oub-load-incr-02

TAXUD/A4 – TARIC3 – Output Bridge Performance Test Plan	
TEST CASES	Ref: TARIC3-OUB-PTP
LOAD TESTING	

Purpose: Assess the performance of the application when it is exposed to peak load conditions, in this case with 10 simultaneous users working in background.

Precondition: The insertion of the reference data set should be successfully processed by the system.

Content: The message is composed of the following transactions:

Step 1. Start the script simulating the background activities of 10 users working simultaneously.

Step 2. Through the *performance test script* of the Output Bridge Satellite application, launch an extraction operation with the following parameters:

- Date/time from= '2009-01-05T00:00:00' to='2009-01-06T00:00:00'; a destination filter id='DS'; receiver='DS'.

Step 3. Verify the execution time.

Expected Output: Action accepted and time taken by the system.

Name: Oub-load-incr-03

Purpose: Assess the performance of the application when it is exposed to peak load conditions, in this case with 15 simultaneous users working in background.

Precondition: The insertion of the reference data set should be successfully processed by the system.

Content: The message is composed of the following transactions:

Step 1. Start the script simulating the background activities of 15 users working simultaneously.

Step 2. Through the *performance test script* of the Output Bridge Satellite application, launch an extraction operation with the following parameters:

- Date/time from= '2009-01-05T00:00:00' to='2009-01-06T00:00:00'; a destination filter id='DS'; receiver='DS'.

Step 3. Verify the execution time.

Expected Output: Action accepted and time taken by the system.

Name: Oub-load-incr-04

Purpose: Assess the performance of the application when it is exposed to peak load conditions, in this case with 20 simultaneous users

TAXUD/A4 – TARIC3 – Output Bridge Performance Test Plan	
TEST CASES	Ref: TARIC3-OUB-PTP
VOLUME TESTING	

working in background.

Precondition: The insertion of the reference data set should be successfully processed by the system.

Content: The message is composed of the following transactions:

Step 1. Start the script simulating the background activities of 20 users working simultaneously.

Step 2. Through the *performance test script* of the Output Bridge Satellite application, launch an extraction operation with the following parameters:

- Date/time from= '2009-01-05T00:00:00' to='2009-01-06T00:00:00'; a destination filter id='DS'; receiver='DS'.

Step 3. Verify the execution time.

Expected Output: Action accepted and time taken by the system.

3.3. Volume Testing

The test cases defined in this section cover the test scenarios under OUB-PTS-VOLUME-X defined in [TARIC3-OUB-PTS].

Name: Oub-volume-full-01

Purpose: Assess the performance of the system when performing full extractions having a low volume of data.

Precondition: The insertion of the reference data set should be successfully processed by the system.

Content: The message is composed of the following transactions:

Step 1. Through the *performance test script* of the Output Bridge Satellite application, launch an extraction operation with the following parameters:

- Active date='2009-01-01 T00:00:00'; archive date='2008-12-31 T00:00:00'; formats= 'XML', 'EDIFACT2' and 'EDIFACT3'. One single language is specified.

Step 2. Verify the execution time.

Expected Output: Action accepted and time taken by the system.

Name: Oub-volume-full-02

Purpose: Assess the performance of the system when performing full

TAXUD/A4 – TARIC3 – Output Bridge Performance Test Plan	
TEST CASES	Ref: TARIC3-OUB-PTP
VOLUME TESTING	

extractions having medium volume of data.

Precondition: The insertion of the reference data set should be successfully processed by the system.

Content: The message is composed of the following transactions:

Step 1. Through the *performance test script* of the Output Bridge Satellite application, launch an extraction operation with the following parameters:

- Active date='2009-01-01 T00:00:00'; archive date='2008-01-01 T00:00:00'; formats= 'XML', 'EDIFACT2' and 'EDIFACT3'. One single language is specified.

Step 2. Verify the execution time.

Expected Output: Action accepted and time taken by the system.

Name: Oub-volume-full-03

Purpose: Assess the performance of the system when performing full extractions having high volume of data.

Precondition: The insertion of the reference data set should be successfully processed by the system.

Content: The message is composed of the following transactions:

Step 1. Through the *performance test script* of the Output Bridge Satellite application, launch an extraction operation with the following parameters:

- Active date='2009-06-01 T00:00:00'; archive date='1970-01-01 T00:00:00'; formats= 'XML', 'EDIFACT2' and 'EDIFACT3'. One single language is specified.

Step 2. Verify the execution time.

Expected Output: Action accepted and time taken by the system.

Name: Oub-volume-incr-01

Purpose: Assess the performance of the system when performing incremental extractions having a low volume of data.

Precondition: The insertion of the reference data set should be successfully processed by the system.

Content: The message is composed of the following transactions:

TAXUD/A4 – TARIC3 – Output Bridge Performance Test Plan	
TEST CASES	Ref: TARIC3-OUB-PTP
VOLUME TESTING	

Step 1. Through the *performance test script* of the Output Bridge Satellite application, launch an extraction operation with the following parameters:

- Date/time from= '2009-01-01T00:00:00' to='2009-01-07T59:59:00'; destination filter='AT'; receiver='CC'.

Step 2. Verify the execution time.

Expected Output:

Action accepted and time taken by the system.

Name:

Oub-volume-incr-02

Purpose:

Assess the performance of the system when performing incremental extractions having medium volume of data.

Precondition:

The insertion of the reference data set should be successfully processed by the system.

Content:

The message is composed of the following transactions:

Step 1. Through the *performance test script* of the Output Bridge Satellite application, launch an extraction operation with the following parameters:

- Date/time from= '2009-01-01T00:00:00' to='2009-01-14T59:59:00'; destination filters='DS'; receiver='DS'.

Step 2. Verify the execution time.

Expected Output:

Action accepted and time taken by the system.

Name:

Oub-volume-incr-03

Purpose:

Assess the performance of the system when performing incremental extractions having high volume of data.

Precondition:

The insertion of the reference data set should be successfully processed by the system.

Content:

The message is composed of the following transactions:

Step 1. Through the *performance test script* of the Output Bridge Satellite application, launch an extraction operation with the following parameters:

- Date/time from= '2009-01-01T00:00:00' to='20092009-01-31T59:59:00'; destination filters='DS'; receiver='DS'.

-

TAXUD/A4 – TARIC3 – Output Bridge Performance Test Plan	
TEST CASES	Ref: TARIC3-OUB-PTP
VOLUME TESTING	

Step 2. Verify the execution time.

Expected
Output:

Action accepted and time taken by the system.

TAXUD/A4 – TARIC3 – Output Bridge Performance Test Plan		
TEST REPORT FORM		Ref: TARIC3-OUB-PTP
ENVIRONMENT DESCRIPTION		

4. TEST REPORT FORM

4.1. Environment description

Hardware platform	Sun
Operating system	Solaris version
Database (+version)	Database version
Official release number ¹	
ClearCase label ²	
Performance test file version	
Execution date	

Table 4: Environment description

4.2. Baseline report

Application action	Measure	Time hh:mm:ss
Oub_base_1	Execution time measured in hours, minutes and seconds (T1)	03:23:43
Oub_base_2	Execution time measured in hours, minutes and seconds (T2)	03:24:28
Oub_base_3	Execution time measured in hours, minutes and seconds (T3)	03:22:38
Oub_base_4	Execution time measured in hours, minutes and seconds (T4)	00:06:32
Oub_base_5	Execution time measured in hours, minutes and seconds (T5)	00:06:23
Oub_base_6	Execution time measured in hours, minutes and seconds (T6)	00:06:23

Table 5: Baseline report

4.3. Test case execution

Test case	Measure	Time hh:mm:ss
Oub-perf-full-01a	Execution time measured in hours, minutes and seconds	03:08:26
Oub-perf-full-01b	Execution time measured in hours, minutes and seconds	03:12:31
Oub-perf-full-02a	Execution time measured in hours, minutes and seconds	03:16:54

¹ This information must only be filled in for testing of official delivery (e.g. 1.0.0).

² This information is only available to the development team and identifies the tested internal version.

TAXUD/A4 – TARIC3 – Output Bridge Performance Test Plan		
TEST REPORT FORM		Ref: TARIC3-OUB-PTP
TEST CASE EXECUTION		

Test case	Measure	Time hh:mm:ss
Oub-perf-full-02b	Execution time measured in hours, minutes and seconds	03:29:41
Oub-perf-full-03a	Execution time measured in hours, minutes and seconds	03:31:02
Oub-perf-full-03b	Execution time measured in hours, minutes and seconds	04:05:09
Oub-perf-incr-04a	Execution time measured in hours, minutes and seconds	00:06:42
Oub-perf-incr-04b	Execution time measured in minutes	00:06:10
Oub-perf-incr-05a	Execution time measured in hours, minutes and seconds	00:06:11
Oub-perf-incr-05b	Execution time measured in hours, minutes and seconds	00:06:11
Oub-perf-incr-06a	Execution time measured in hours, minutes and seconds	00:06:11
Oub-perf-incr-06b	Execution time measured in hours, minutes and seconds	00:06:10
Oub-load-norm-01	Execution time measured in hours, minutes and seconds	04:36:40
Oub-load-norm-02	Execution time measured in hours, minutes and seconds	04:31:13
Oub-load-norm-03	Execution time measured in hours, minutes and seconds	00:07:03
Oub-load-norm-04	Execution time measured in hours, minutes and seconds	00:18:36
Oub-load-full-01	Execution time measured in hours, minutes and seconds	04:42:56
Oub-load-incr-01	Execution time measured in hours, minutes and seconds	04:27:42
Oub-load-full-02	Execution time measured in hours, minutes and seconds	04:24:47
Oub-load-full-03	Execution time measured in hours, minutes and seconds	04:52:06
Oub-load-full-04	Execution time measured in hours, minutes and seconds	00:06:12
Oub-load-incr-02	Execution time measured in hours, minutes and seconds	00:06:19
Oub-load-incr-03	Execution time measured in hours, minutes and seconds	00:06:17
Oub-load-incr-04	Execution time measured in hours, minutes and seconds	00:19:57
Oub-volume-full-01	Execution time measured in hours, minutes and seconds	04:30:46

TAXUD/A4 – TARIC3 – Output Bridge Performance Test Plan	
TEST REPORT FORM	Ref: TARIC3-OUB-PTP
TEST CASE EXECUTION	

Test case	Measure	Time hh:mm:ss
Oub-volume-full-02	Execution time measured in hours, minutes and seconds	04:58:51
Oub-volume-full-03	Execution time measured in minutes	39:39:52
Oub-volume-incr-01	Execution time measured in minutes	05:16:35
Oub-volume-incr-02	Execution time measured in minutes	06:33:57
Oub-volume-incr-03	Execution time measured in hours, minutes and seconds	34:01:29

Table 6: Test report form

TAXUD/A4 – TARIC3 – Output Bridge Performance Test Plan	
ANNEX 1: COVERAGE TABLE	Ref: TARIC3-OUB-PTP

ANNEX 1: COVERAGE TABLE

This annex contains a table that describes the coverage of the different test scenarios by the test cases. The goal is to trace the test scenarios with regard to the test cases and vice versa.

The first column of the table contains the reference of the test scenario in the [[TARIC3-OUB-PTS](#)] document, and the second column the name of the related test case(s).

Test scenario	Test cases
TS001	Oub-perf-full-01a; Oub-perf-full-01b; Oub-perf-full-02a; Oub-perf-full-02b; Oub-perf-full-03a; Oub-perf-full-03b.
TS002	Oub-perf-incr-04a; Oub-perf-incr-04b; Oub-perf-incr-05a; Oub-perf-incr-05b; Oub-perf-incr-06a; Oub-perf-incr-06b.
TS003	Oub-load-norm-01, Oub-load-norm-02.
TS004	Oub-load-norm-03, Oub-load-norm-04.
TS005	Oub-load-full-01.
TS006	Oub-load-incr-01.
TS007	Oub-load-full-02; Oub-load-full-03; Oub-load-full-04.
TS008	Oub-load-incr-02; Oub-load-incr-03; Oub-load-incr-04.
TS009	Oub-volume-full-01.
TS010	Oub-volume-full-02.
TS011	Oub-volume-full-03.
TS012	Oub-volume-incr-01.
TS013	Oub-volume-incr-02.
TS014	Oub-volume-incr-03.

Table 7 Coverage table

TAXUD/A4 – TARIC3 – Output Bridge Performance Test Plan	
ANNEX 2: BACKGROUND ACTIVITIES	Ref: TARIC3-OUB-PTP

ANNEX 2: BACKGROUND ACTIVITIES

File	Purpose
<i>TARIC3_SRV_TST1.xml</i>	Simulate Background activity for the user 1
<i>TARIC3_SRV_TST2.xml</i>	Simulate Background activity for the user 2 Do 10 times: <ul style="list-style-type: none"> Insert data for user 2 Update data inserted by user 2 Perform X queries Delete data inserted by user 2
<i>TARIC3_SRV_TST3.xml</i>	Simulate Background activity for the user 3 Do 10 times: <ul style="list-style-type: none"> Insert data for user 3 Update data inserted by user 3 Perform X queries Delete data inserted by user 3
<i>TARIC3_SRV_TST4.xml</i>	Simulate Background activity for the user 4 Do 10 times: <ul style="list-style-type: none"> Insert data for user 4 Update data inserted by user 4 Perform X queries Delete data inserted by user 4
<i>TARIC3_SRV_TST5.xml</i>	Simulate Background activity for the user 5 Do 10 times: <ul style="list-style-type: none"> Insert data for user 5 Update data inserted by user 5 Perform X queries Delete data inserted by user 5
<i>TARIC3_SRV_TST6.xml</i>	Simulate Background activity for the user 6

TAXUD/A4 – TARIC3 – Output Bridge Performance Test Plan	
ANNEX 2: BACKGROUND ACTIVITIES	Ref: TARIC3-OUB-PTP

File	Purpose
	Do 10 times: <ul style="list-style-type: none"> Insert data for user 6 Update data inserted by user 6 Perform X queries Delete data inserted by user 6
<i>TARIC3_SRV_TST7.xml</i>	Simulate Background activity for the user 7 Do 10 times: <ul style="list-style-type: none"> Insert data for user 7 Update data inserted by user 7 Perform X queries Delete data inserted by user 7
<i>TARIC3_SRV_TST8.xml</i>	Simulate Background activity for the user 8 Do 10 times: <ul style="list-style-type: none"> Insert data for user 8 Update data inserted by user 8 Perform X queries Delete data inserted by user 8
<i>TARIC3_SRV_TST9.xml</i>	Simulate Background activity for the user 9 Do 10 times: <ul style="list-style-type: none"> Insert data for user 9 Update data inserted by user 9 Perform X queries Delete data inserted by user 9
<i>TARIC3_SRV_TST10.xml</i>	Simulate Background activity for the user 10 Do 10 times: <ul style="list-style-type: none"> Insert data for user 10 Update data inserted by user 10

TAXUD/A4 – TARIC3 – Output Bridge Performance Test Plan	
ANNEX 2: BACKGROUND ACTIVITIES	Ref: TARIC3-OUB-PTP

File	Purpose
	Perform X queries Delete data inserted by user 10
<i>TARIC3_SRV_TST11.xml</i>	Simulate Background activity for the user 11 Do 10 times: Insert data for user 11 Update data inserted by user 11 Perform X queries Delete data inserted by user 11
<i>TARIC3_SRV_TST12.xml</i>	Simulate Background activity for the user 12 Do 10 times: Insert data for user 12 Update data inserted by user 12 Perform X queries Delete data inserted by user 12
<i>TARIC3_SRV_TST13.xml</i>	Simulate Background activity for the user 13 Do 10 times: Insert data for user 13 Update data inserted by user 13 Perform X queries Delete data inserted by user 13
<i>TARIC3_SRV_TST14.xml</i>	Simulate Background activity for the user 14 Do 10 times: Insert data for user 14 Update data inserted by user 14 Perform X queries Delete data inserted by user 14
<i>TARIC3_SRV_TST15.ml</i>	Simulate Background activity for the user 15 Do 10 times:

TAXUD/A4 – TARIC3 – Output Bridge Performance Test Plan	
ANNEX 2: BACKGROUND ACTIVITIES	Ref: TARIC3-OUB-PTP

File	Purpose
	<p>Insert data for user 15</p> <p>Update data inserted by user 15</p> <p>Perform X queries</p> <p>Delete data inserted by user 15</p>
<i>TARIC3_SRV_TST16.xml</i>	<p>Simulate Background activity for the user 16</p> <p>Do 10 times:</p> <p>Insert data for user 16</p> <p>Update data inserted by user 16</p> <p>Perform X queries</p> <p>Delete data inserted by user 16</p>
<i>TARIC3_SRV_TST17.xml</i>	<p>Simulate Background activity for the user 17</p> <p>Do 10 times:</p> <p>Insert data for user 17</p> <p>Update data inserted by user 17</p> <p>Perform X queries</p> <p>Delete data inserted by user 17</p>
<i>TARIC3_SRV_TST18.xml</i>	<p>Simulate Background activity for the user 18</p> <p>Do 10 times:</p> <p>Insert data for user 18</p> <p>Update data inserted by user 18</p> <p>Perform X queries</p> <p>Delete data inserted by user 18</p>
<i>TARIC3_SRV_TST19.xml</i>	<p>Simulate Background activity for the user 19</p> <p>Do 10 times:</p> <p>Insert data for user 19</p> <p>Update data inserted by user 19</p> <p>Perform X queries</p> <p>Delete data inserted by user 19</p>

TAXUD/A4 – TARIC3 – Output Bridge Performance Test Plan	
ANNEX 2: BACKGROUND ACTIVITIES	Ref: TARIC3-OUB-PTP

File	Purpose
<i>TARIC3_SRV_TST20.xml</i>	<p>Simulate Background activity for the user 20</p> <p>Do 10 times:</p> <ul style="list-style-type: none"> Insert data for user 20 Update data inserted by user 20 Perform X queries Delete data inserted by user 20

Table 8: Background Activities