EPCIS VP User Manual Index

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I. Purpose of EPCIS Validation Portal – User Guide

This document is the general user guide for the EPCIS Validation Portal (www.epcisvp.com). The following information can be found in the scope of this document:

- Introduction to EPCIS Data Validation
- Registration for EPCIS Validation Portal
- Procedures for testing one’s EPCIS data
- Interpretations of the results
- Support Information
II. Introduction to EPCIS Validation Portal

The EPC Information Services (EPCIS) Validation Portal (VP) is a self testing service available via the World Wide Web. The tool provides a fast and simple way to visualize the data content of your EPCIS information, and also checks for errors. EPCIS VP analyzes your EPCIS data and verifies an implementation’s adherence to:

- The EPCIS specification
- EPC Tag Data Standards
- EPCIS Vocabulary Standards

By ensuring uniform vocabulary and other standards across your supply chain, EPCIS VP will maximize sharing of your EPCIS information with your trading partners.

**Purpose of EPCIS VP:**
*To ensure the smooth functioning and integrity of the information creation, management and exchange processes as envisioned in the EPCIS Data Sharing Vision.*

**Implementation Issues That Can Obscure the EPCIS Data Sharing Vision**
- If events are not properly captured
- If EPC codes are not properly formatted
- If incorrect or non-standard Vocabulary is used
- If extensions are added in a manner inconsistent with the standard

**How the EPCIS VP Works to Help Minimize Data Sharing Failures**
- End-User uploads data, either his/her own or data received from a trading partner
- EPCIS-VP performs a battery of 60+ tests, instantly reporting any errors found.
- EPCIS-VP also produces an analysis of EPCIS data content, providing an immediately accessible way to understand the content of End-User’s data
The EPCIS Validation Portal

To facilitate solution providers and end users’ easy and flexible access to the EPCIS data validation service, EPCglobal Inc. and MET Laboratories, Inc. provide this service via the World Wide Web as the EPCIS Validation Portal (VP) hosted at www.epcisvp.com. The software and the servers are maintained by MET Labs, which will also be the primary source of technical support for all users.

Fig: EPCIS Validation Portal – Main Page
III. Key Features of the EPCIS Validation Portal

The following features have been included in the EPCIS Validation Portal to increase its ease of use, and to assist the subscriber’s efforts at correct implementation and debugging:

- Secured environment
- User friendly GUI
- Tests can be scheduled from MET Labs, or be access automatically on-demand
- Data Flexibility
  - Use own data i.e. EPCs
- Tests can be conducted via:
  - File Upload (as conceptually illustrated in the figure to the left), or
  - Data Push (as conceptually illustrated in the figure to the right).

- Detailed Test Reports
  - Documented in various formats
  - Point-by-point identification of errors and warnings for purposes of debugging
- Supported from test-engineers at MET Labs

Further, EPCglobal Inc and MET Labs are also working on providing several additional features to the EPCIS VP such as:
- Multi-Language support for MOs
- Bi-directional Tests.
IV. Registration Process

The EPCIS VP user will have to register with the system to use any of its functions. The procedures for the registration process are outlined below:

Subscribe: Step 1 - EULA agreement

<table>
<thead>
<tr>
<th>Usage Plans</th>
<th>End-User</th>
<th>Solution Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trial Plan</td>
<td>$49</td>
<td>$49</td>
</tr>
<tr>
<td>Monthly Plan</td>
<td>$960</td>
<td>$1500</td>
</tr>
<tr>
<td>Annual Plan</td>
<td>$9600</td>
<td>$15000</td>
</tr>
</tbody>
</table>

Additional Plan Information:
- The Trial Plan expires after 3 days. File size is limited to 10 events and only the first two errors are reported.
- Monthly Plan will be credited with $49 for users that decide to sign up.

Please read carefully the license information:

**IMPORTANT, PLEASE READ CAREFULLY: THIS IS A LICENSE AGREEMENT**

The EPCIS Validation Portal (EVP) is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The EVP is licensed, not sold.
Check "I agree" after checking the EULA

Click "Sign Up" to proceed to next step, if you agree to EULA

Fig: Registration Page 2 – End User Legal Agreement (above)
(User must agree if the registration is to be completed. Please contact Business Support for details)

Fig: User Account Information Fields
(Left)
At this point the user’s choice will determine the next sequence of action:

- If the user chooses to pay offline, then the user can view the various features offered, but not test anything. EPCglobal and MET Labs will contact the user with details on the subsequent steps.
- If the user chooses to pay immediately by credit-card (i.e. opt for on-demand testing), they will be directed to credit-card processing stage, as shown below:
V. Registered User Log-In

A registered user with an active test account can access the validation portal immediately. To do so, the user first needs to:

a. Access the EPCIS Validation Portal (VP) at www.epcisvp.com
b. Provide the registered username and password for authentication

**REGISTERED USER LOGIN**

* Found in the left panel of the Portal Homepage
* User Name and Password are entered here

* Password recovery if desired

**LOGIN**

User Name: dus-met
Password: 

Forgot your password?

Fig: Registered User Log-In View (With Explanation)
EPCIS VP Accessed: Initial Navigation Options

The user can choose any one of these selections by clicking on the url link or the panel buttons, as shown below:

<table>
<thead>
<tr>
<th>Selection</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test: Upload file</td>
<td>To test an XML file containing EPCIS data that the user has in his/her computer's file system.</td>
</tr>
<tr>
<td>Test: Push data</td>
<td>To test the data that the user’s EPCIS software delivers to trading partners or other systems, using the EPCIS Query Callback interface.</td>
</tr>
<tr>
<td>Test Reports</td>
<td>To view tests that the user has previously completed using &quot;Test: Upload file&quot; or &quot;Test: Push data&quot;</td>
</tr>
<tr>
<td>My Account</td>
<td>To view or change user account information, including contact information and password. The user may also renew or extend his/her account from here.*</td>
</tr>
<tr>
<td>EPCIS References</td>
<td>To easily access links to the EPCglobal EPCIS and Core Business Vocabulary standards.</td>
</tr>
</tbody>
</table>

Fig: EPCIS VP Accessed – Initial Navigation Options
VI. Test Via File Upload

The user can test an XML file, containing EPCIS data and stored on his/her computer’s file system, using “Test Via File Upload” selection (See Fig: “Concept of Test Via File Upload” in the section on Key Features). The user will need to provide the location of the file and profile under which it will be tested. It is also recommended that the user choose an easily identifiable name.

Introduction: Test Via File Upload – Required Inputs

- Select the file to upload:
  - File path: [Input field]
  - Browse...

  File size limit is 10MB

- Enter the name of the test:
  - Name: [Input field]

- Select the profile:
  - Profile: [Dropdown list]
  - Select a profile from the list

- Upload File and Start Test

Fig: Instructions for Test via File Upload

Fig: Required Inputs for Testing via File Upload
Step 1: Select XML File to Upload for Validation

![Image](Fig: Click Browse to Select File to Upload)

Step 2: Provide Input

- Type in the file-path or browse for it with the file locator.
- Name the test (optional)
- Select a profile from the drop-down list.

![Image](Fig: Provide File Location, Test Name and Profile)

Step 3: Upload File and Start Test

→ Click on “Upload File and Start Test” button!

The user will see a results screen similar to the one shown below. At this point of time, test via upload has been completed. To navigate through, and understand the test results, refer to Section VII (Test Reports).

![Image](Fig. Sample Results Screen – Indicating successful completion of the testing.)
VII. Test Via Data Push

The user can test the data that his/her EPCIS software delivers to trading partners or other systems, using the EPCIS Query Callback interface. The user will have to provide an identifying name for the test, and the profile under which it will be tested. Testing via secure http (https) will also be an option for the user in later versions of this software service. The user will in turn be given an end-point address to post the data from his/her EPCIS implementation.

![Instructions for Test via HTTP/HTTPS Post](image)

1. Enter a name for the test in the corresponding text box. NOTE: Use a name that will help you identify this specific test in the list of all your tests.

2. Select a profile from the drop down list. Choose "Basic" to perform the fundamental validations that will test the document provided is valid according to EPCIS standard. Choose "Core Business Vocabulary" to test the document meets additional requirements set by the vocabulary standard.

3. Currently, only HTTP binding is available. But we will also give the possibility of posting the data using secure HTTP (HTTPS) in a future version.

4. Once all the parameters above have been set, the last text box displays the URL to which the data must be posted.

5. Click "Start Test" and proceed to posting your data. Performing validations and printing the reports may take a few seconds. To view the reports, go to "Tests" on the left side menu and click on the corresponding test.

![Required Inputs for Test via Post](image)
Step 1: Name the Test

Enter the name of the test:

**ExampleTestViaPost**

Fig: Input Name for the Test

Step 2: Select Profile to Test Under

Select the profile and binding:

Fig: Select Profile from Drop-Down List

Step 3: Copy the Test Server’s End-Point Address for EPCIS’s Use

Test server's HTTP POST end point is:

Fig: End-Point Address of the Test Server

Pushed data limit is 10MB

Step 4: Start Test

→ Click on “Start Test” Button

Step 5: Check “Test Progress” Status

→ If it reads “You can now start posting data to the URL shown above”, proceed to Step 6.

Step 6: Post Data to Test Server With Your EPCIS Implementation

Fig: Simplified Example of Posting Data from EPCIS

Step 7: Check Results for Successful Post

→ Follow instructions in section VII Test Report on how to view test reports.
VIII. Test Reports

The user can view the reports for all the tests he/she completed (via file upload and/or data push). The reports can also be converted into other useful file types (XML, annotated XML, PDF etc) for debugging, documentation, analysis etc. The reports can also be deleted.

1. Navigating the Test Reports Page

The user will be able to do the following with the links identified and marked above:

- Test Reports are maintained in two lists: The tests conducted via file upload, and those conducted via data push.
- The entire report, including records of the test having been conducted, can be deleted by the user.
- Detailed results of the test can be viewed for each test conducted by the user. (See the next sub-section for explanation).

2. Navigating the Individual Test Summary Report

The user will be provided a summary report for each individual test – It appears automatically at the end of a test via file upload, or it can also be accessed from “Details” of the Test Reports. As can be seen from above:

- The Error Details in XML File can be viewed for easy debugging.
- A detailed report can be generated in PDF for documentation purposes.
• The Original XML refers to the XML file that was uploaded or pushed. This is especially helpful in the “push” case, as it provides a way for the user to discover exactly what his system delivered to the portal.

3. Navigating the Annotated XML Report

4. Create PDF Report

The user can create a PDF report of the test results; he/she can also control the content of the document as deemed necessary. It is done with the following controls:

“Create PDF” yields the following:

NOTE: Printing the XML to PDF is not appropriate for very large XML files (it is slow and the information of the errors is on the other reports).
IX. Account Management

Under “My Account” the user can update their information, including their contact information and password. The user may also renew or extend his/her account from here, once the service is activated.* See below:

Fig: Account Management Area – Editable Password, Usage Plan and Contact Information (above)

Fig: Additional fields that can be edited. Notice that all these fields require values. (left)
X. Support Information

The user is provided easy access links to the EPCglobal EPCIS and Core Business Vocabulary standards, which form the basis for all the validation performed on EPCIS VP.

Contact Information for Business and Technical Support

All enquiries regarding EPCIS VP must be sent to epcisvp@metlabs.com

Technical Support

<table>
<thead>
<tr>
<th>Arun Badami</th>
<th>Ted Osinski</th>
</tr>
</thead>
<tbody>
<tr>
<td>Software Engineer</td>
<td>Dir RFID Programs</td>
</tr>
<tr>
<td>MET Laboratories, Inc.</td>
<td>MET Laboratories, Inc.</td>
</tr>
<tr>
<td><a href="mailto:abadami@metlabs.com">abadami@metlabs.com</a></td>
<td><a href="mailto:tosinki@metlabs.com">tosinki@metlabs.com</a></td>
</tr>
</tbody>
</table>

General Inquiries

EPCglobal, Inc.
certification@epcglobalinc.org

Implementation and Standards Education Consulting (Billed Service)

<table>
<thead>
<tr>
<th>Kenneth R Traub</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ken Traub Consulting LLC</td>
</tr>
<tr>
<td><a href="mailto:kt@alum.mit.edu">kt@alum.mit.edu</a></td>
</tr>
</tbody>
</table>
Appendix A: Sections of the Summary Report

Overall Test Identification

<table>
<thead>
<tr>
<th>TEST IDENTIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test name</td>
</tr>
<tr>
<td>Datetime run</td>
</tr>
<tr>
<td>Test method</td>
</tr>
<tr>
<td>Validations performed</td>
</tr>
</tbody>
</table>

Error Summary

<table>
<thead>
<tr>
<th>ERROR SUMMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 total errors</td>
</tr>
<tr>
<td>5 out of 5 events had errors</td>
</tr>
<tr>
<td>1 Event time lacks a valid time zone indicator.</td>
</tr>
<tr>
<td>6 Error in Read Point.</td>
</tr>
<tr>
<td>3 Error in Business Location.</td>
</tr>
<tr>
<td>1 Error in EPC.</td>
</tr>
<tr>
<td>1 Error in Parent ID.</td>
</tr>
</tbody>
</table>

Warning Summary

<table>
<thead>
<tr>
<th>WARNING SUMMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 total warnings</td>
</tr>
<tr>
<td>5 out of 5 events had warnings</td>
</tr>
<tr>
<td>5 Error in Business Step.</td>
</tr>
<tr>
<td>5 Error in Read Point.</td>
</tr>
<tr>
<td>3 Error in Business Location.</td>
</tr>
</tbody>
</table>

Non Conformance of these issues may have repercussions that the user must consider.

EPCIS Document Summary

<table>
<thead>
<tr>
<th>EPCIS DOCUMENT SUMMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document type</td>
</tr>
<tr>
<td>Headers</td>
</tr>
<tr>
<td>Event count</td>
</tr>
<tr>
<td>4 ObjectEvent</td>
</tr>
<tr>
<td>1 AggregationEvent</td>
</tr>
</tbody>
</table>

Vocabulary Analysis
## Vocabularies Analysis

### Business Steps
4 distinct business step values used in 5 events

<table>
<thead>
<tr>
<th>Step</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>urn:epçglobal:epçis:core:.bizStep:receiving</td>
</tr>
<tr>
<td>2</td>
<td>urn:epçglobal:epçis:core:bizStep:shipping</td>
</tr>
<tr>
<td>3</td>
<td>urn:epçglobal:epçis:core:bizStep:receiving</td>
</tr>
<tr>
<td>4</td>
<td>urn:epçglobal:epçis:core:bizStep:packing</td>
</tr>
</tbody>
</table>

### Dispositions
0 distinct disposition values used in 5 events

### Read Points
2 distinct read point values used in 5 events

<table>
<thead>
<tr>
<th>Point</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>urn:epçid:sgñ:081:4141:000309:1</td>
</tr>
<tr>
<td>2</td>
<td>urn:epçid:sgñ:081:4141:000309:2</td>
</tr>
</tbody>
</table>

### Business Locations
1 distinct business location values used in 5 events

<table>
<thead>
<tr>
<th>Location</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>urn:epçid:sgñ:081:4141:000309:0</td>
</tr>
</tbody>
</table>

### Business Transaction Types
0 distinct business transaction type values used in 5 events

---

**Physical Identifier (EPC) Analysis**
## PHYSICAL IDENTIFIER (EPC) ANALYSIS

### EPCs

| Summary statistics: |  
|---------------------|---|
| Event count         | 5 |
| Total EPCs          | 11 |
| Minimum EPCs per event | 1 |
| Maximum EPCs per event | 3 |
| Mean EPCs per event | 2 |

### EPC types:

| type  |  
|-------|---|
| SGTIN | 10 |
| SSCC  | 1  |

### EPC usage:

<table>
<thead>
<tr>
<th>EPC usage</th>
<th>EPC prefix</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>urn:epc:id:sgtin:0614141.000001.3</td>
</tr>
<tr>
<td>3</td>
<td>urn:epc:id:sgtin:0614141.000011.3</td>
</tr>
<tr>
<td>1</td>
<td>urn:epc:id:sgtin:0614141.000011.4</td>
</tr>
<tr>
<td>2</td>
<td>urn:epc:id:sgtin:0614141.000011.5</td>
</tr>
<tr>
<td>2</td>
<td>urn:epc:id:sgtin:0614141.000011.6</td>
</tr>
<tr>
<td>1</td>
<td>urn:epc:id:sscc:0614141.01234567890123456</td>
</tr>
</tbody>
</table>

### COMPANY PREFIXES

| Company Prefixes |  
|------------------|---|
| 11               | 0614141 |

### Extension Fields Analysis

**EXTENSION FIELDS ANALYSIS**

0 total vendor extension elements were found in 0 distinct namespaces.