Document	**Report Validation Utility User Guide**
Version	**1.2**
Year	**2012**

Version Control Chart

Version	Date	Remarks
1.0	December 2010	Version 1.0 released.
1.1	December 2011	Changes in following sections due to implementation of digital signature • Introduction (sections 1.6, 1.7, 1.8) • Hash XML replaced with Secure XML (section 7)
1.2	November 2012	Changes in batch handling process (section 1.8)

Table of Contents

1 Introduction

1.1 Overview

The Government of India has set up Financial Intelligence Unit – India (FIU-IND) to coordinate and strengthen collection and sharing of financial intelligence through an effective national, regional and global network to combat money laundering and related crimes. FIU-IND is the national agency responsible for receiving, processing, analyzing financial transactions and disseminating information relating to suspect transactions to various national intelligence/enforcement agencies.

1.2 Reports prescribed under PMLA

The Prevention of Money laundering Act, 2002 and the Rules there under requires every reporting entity (banking company, financial institution and intermediaries) to furnish the following reports:

- Cash Transaction reports (CTRs)
- Suspicious Transaction Reports (STRs)
- Counterfeit Currency Reports (CCRs)
- Non Profit Organization Transaction reports (NTRs)

1.3 Project FINnet

Financial Intelligence Unit – India (FIU-IND) initiated project FINnet (Financial Intelligence Network) in 2007 with the objective to "Adopt industry best practices and appropriate technology to collect, analyze and disseminate valuable financial information for combating money laundering and related crimes". Key objectives of Project FINnet were to build efficient system for collection of data; reduce the lead time in processing the data; build capacity to effectively analyze large number of reports; and produce quality intelligence.

1.4 Types of reporting formats

The reporting formats specified are:

- Account based reporting format (ARF) for reporting of account based CTRs, STRs and NTRs
- Transactions based reporting format (TRF) for reporting of transaction based CTRs, STRs and NTRs
- CCR reporting format (CRF) for reporting of counterfeit currency reports (CCRs)

The reporting format specifications are prescribed as XML format specifications in the reporting format guide. In addition, fixed width text file format specifications specified earlier are also revised as version 2.1 to assist reporting entities in migration to the XML format specifications.

1.5   Report Generation Utility

The Report Generation Utility (RGU) enables the user to generate XML report from various data sources. The broad features of the Report Generation Utility are:

- Capture data in XML tree structure and Grid structure (version 2.0)

- Import data from previously saved XML file or Grid data

- Perform key and structural validations before generation of XML

- Generate XML report from loaded data or direct conversion of fixed width text files (version 1.0 and 2.0)

- Configure the settings and preferences of the utility

The user guide for RGU provides detailed documentation on using the utility.

1.6   Report Validation Utility

The Report Validation Utility enables user to validate an XML report before submission to FIU-IND. The broad features of the utility are:

- Perform schema validation (XSV) of XML file against the published schema (prescribed in XSD file)

- Perform preliminary rule validation (PRV) of XML file using rules (prescribed in the SCH file)

- View Data Quality Report (in XML format) generated by this utility or sent by FIU-IND

- Show the underlying data elements causing error if the original report is also linked to the utility

- Generate a draft revised report which is required to be resubmitted after correction

- Generate a hash XML for the validated XML report

- Digitally sign the hash XML using the PFX or USB token option

- Configure the settings and preferences of the utility

1.7   FINnet Gateway Portal

The primary mode of submission of reports to FIU-IND will be through the FINnet Gateway Portal. The FINnet Gateway Portal is designed as a comprehensive interface between the reporting entities and FIU-IND. The user manual for the FINnet Gateway Portal provides detailed documentation on using the portal. The broad features are:

- Login Page to allow access to registered users using credentials provided by the FIU. This page also has links to register a new user.

- Home page to display summary of actionable items (unread messages, pending reports, overdue reports etc.) and new content (Downloads, Problems and Solutions, Discussions, FAQs, Events, Tips, Alerts and Surveys).

- Users' module to view and manage the users of the reporting entity, FIU users and user groups.

- Profiles module to upload the digital certificate and manage the profile information of the reporting entity, principal officer and other users.

- Reports module with facility to uploads report and view the upload history, rejected reports, reports where additional information is required, overdue reports and report summary.

- Messages module which is a messaging system between authorized users and FIU users.

- Resources module which is a comprehensive knowledge repository consisting of Downloads, FAQs, Problems and Solutions, Discussion Forums, Surveys, Events, Alerts and Tips

1.8   Submission of reports over the FINnet Gateway

All users of the reporting entities have to register on the FINnet Gateway Portal. After registration, the authorized users will be given credentials for login on FINnet Gateway. The authorized users can upload the reports in prescribed XML file using the reports module of the FINnet Gateway Portal. The users of reporting entities should ensure that all errors detected by the utilities are rectified and the XML file is secured before uploading the reports. On successful upload, the portal shall generate and display a unique Batch ID.

The principal officer can attach the digital signature using the Report Validation Utility prior to uploading the file. If the submitted batch is as per prescribed schema and if the file uploaded is signed with digital signature, the submission of the report will be treated as complete and the status of the batch will be 'Validated'. The date of submission of the batch will be the date of upload. If the file uploaded is without a digital signature, the portal would generate a single page Report Upload Confirmation (RUC) form. The principal officer would be required to print RUC form and send it to FIU-IND after signing. The signed copy of RUC form should be received by FIU-IND within 10 days of upload. After receipt of signed copy of RUC form, the date of upload would be taken as date up submission. If the RUC form is not received at FIU-IND within 10 days, it will be treated as non compliance with the reporting obligation. All reporting entities are encouraged to upload digitally signed reports.

2   About the Document

2.1   Intended Audience

The principal officer and the technical personnel of the reporting entities who would be using the Report Validation Utility (RVU) are the users of this document.

2.2   Document Conventions

This guide uses the following conventions:

- Menu items, Options, Dialog boxes and Functions are mentioned in **Bold**.

- Error messages are displayed in *Italics.*

- Angle brackets (>) indicate the progression of menu choices the user should select in a graphical user interface (GUI).

- **Tip** provides easier methods to accomplish tasks.

- **Caution** means to take extra care, to avoid errors.

- **Note** provides additional information.

3 Messages and Tool tips in the Utility

3.1 Messages

The utility displays following types of messages:

Message Type	Symbol	Description	Example
Information		Provides information about the results of a command. Offers the user no choice.	*Setup completed successfully.*
Caution		Informs the user about a situation that requires intervention or correction before work can continue.	*The file could not be found. Enter the correct file name or select a valid file.*

3.2 Utility Tool tips

Utility tool tip is a small text pop-up that appears when the user hovers the mouse pointer/cursor over an element, such as over a button.

Message Type	Symbol	Example
Tool tip	Tool tip	When the user hovers the cursor over the **Preliminary Rule Validation** button, tool tip *Preliminary verification of XML file using rules* appears.

4   Getting Started

4.1   Downloading the utility

The Report Validation Utility is available in the **Downloads** section of the **Resources** module of the FINnet Gateway portal. The Report Validation Utility can be downloaded as under:

1. Go to FIU-IND website at **http://fiuindia.gov.in**

2. Click on the link of **FINnet** which is available in the left panel of the FIU-IND website

3. Enter **Login Name** and **Password** on the login page of the FINnet Gateway

4. Click **Login**. It navigates the user to the Home page of the FINnet Gateway

5. Click **Downloads** in the **Resources** module. It navigates the user to the download section of the Resources module page.

6. From t**he list o**f downloads, click the section **Report Validation Utility**. It allows the user to save the file in the location given by user.

> **Tip**: The user can directly access FINnet Gateway portal at https://finnet.gov.in and save the URL as Favorites in the browser.

4.2   Prerequisites for installing Report Validation Utility

The Report Validation Utility (RVU) requires Java Development Kit (JDK) and Unzip software.

1. Java Development Kit (JDK)

    *   It allows the user to run Java supported programs. Report Validation Utility requires JDK to run on Windows based operating system.

    *   Download and install JDK version 1.6 or later from www.oracle.com/technetwork/java/kavase/downloads/index.html

2. Unzip software

    *   It allows the user to extract the zipped/compressed file.

    *   Use tools like WinZip or WinRAR to extract the downloaded RVU file.

4.3   Deploying the utility

Once the JDK version 1.6 or later is installed, the Report Validation Utility (RVU) can be deployed as under:

1. Create a new folder on the desktop or a selected location and Rename the new folder as **RVU**

2. Extract the downloaded file to the folder using unzip software like WinZip or WinRAR.

> **Note**: Download both RGU and RVU on the same machine. RGU would be required to import the XML file for making necessary corrections to the file.

4.4   Running the Utility

After the JDK and utility is installed, the Report Validation Utility (RVU) can be run as under:

1. Go to the folder (RVU) where the contents of the Report Validation Utility (RVU) have been extracted (refer section 4.3 above)

2. Click on **RVU.bat** file. It displays the Report Validation Utility default window.

3. Up**on runni**ng the utility, a System (Microsoft Command Prompt) console window also opens.

> **Caution**: The system console window should remain open throughout the operation of the utility. If this window is closed either accidentally or intentionally data would be lost.

4.5   Frequently Asked Questions (FAQs)

4.5.1   How to download the Report Validation Utility on to the desktop?

The Report Validation Utility can be downloaded from the **Downloads** section of the **Resources** module of the FINnet Gateway portal. For more details, refer section 4.1.

4.5.2   How to check if download is complete?

When the download is complete, a message *Download Complete* Appears.

4.5.3   How to check the size of the utility?

Right-click on the folder icon and select **Properties.** This will open a window that displays the information about the folder size.

4.5.4   How to install the utility on a windows platform?

The downloaded zip file has to be extracted on to the desktop using WinZip or WinRAR tools. For more details refer section 4.3.

4.5.5   Whether the utility needs any other software to be installed?

Yes. Report Validation Utility requires JDK to run on Windows based operating system. Download and install JDK version 1.6 or later. For more details, refer section 4.2.

4.5.6   How to run the utility?

Click on **RVU.bat** file to run the utility. For more details, refer section 4.4.

5 Validation

Validation tab enables the user to validate an XML report. The XML report can be generated by the user's own resources or from the report validation utility provided by FIU-IND. The utility performs both schema and rule validation.

5.1 XML Schema Validation

XML Schema Validation (XSV) is the verification of XML file against the published FIU-IND schema (XSD file), which describes the content in a structured form. The utility validates conformance with schema formats, mandatory fields, data type, valid enumerations etc. The user can validate an XML file against the prescribed XML Schema as under:

1. Click **Browse** to select XML Source file**.**

Figure 1: XML Schema Validation
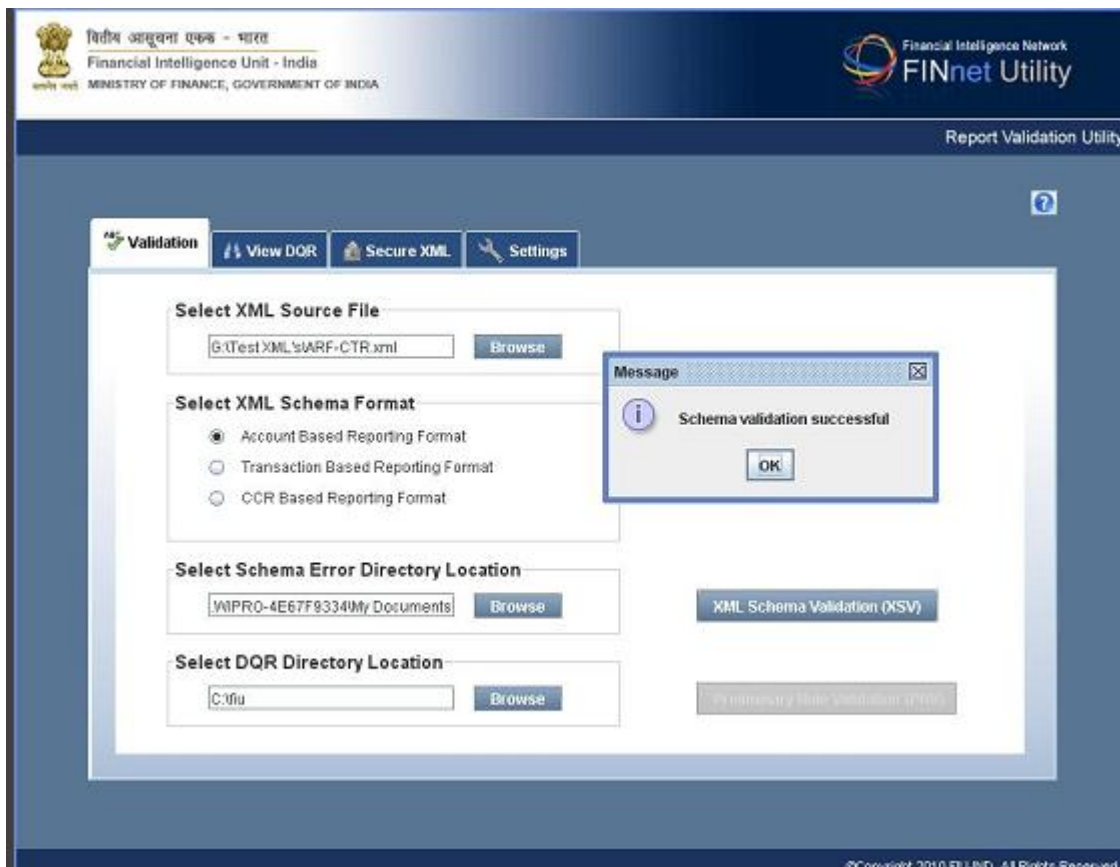
2. Select the XML file to be validated and click **Open**. It displays the selection in the XML Source file location field.

3. Select the **XML Schema Format** (Account based, Transaction based and CCR based reporting format)

4. Click Browse to select Schema Error Directory. It displays a new open dialog box, which prompts the user to select the folder to save the schema error file.

5. Click Open. It displays the selection in the Schema Error file location field.

6. Click XML Schema Validation (XSV). It verifies the XML file against the published FIU-IND schema, and displays the message Schema Validation successful. If successful, the utility activates Preliminary Rule Validation (PRV) button. Alternatively, if it displays message *Schema Validation Failed*, the errors needs to be rectified referring the Schema error file.

> **Note**: Details on XML Schema are provided in the Reporting Format Guide which can be downloaded from the Downloads section of the FIU-IND website and FINnet Gateway Portal.

5.2   Preliminary Rule Validation

Preliminary Rule Validation (PRV) is the verification of XML file against rules specified in an external rules file (SCH file). The utility validates for rules like uniqueness, data sufficiency and high probability of errors. For more details, refer section 7.5 of Reporting Format Guide. The user can validate an XML file against the rules as under:

1. If there are no errors in the XML Schema Validation (XSV), the utility activates Preliminary Rule Validation (PRV) button.

Figure 2: Preliminary Rule Validation

2. Click **Browse** to select Data Quality Report (DQR) Directory location. It displays a new open dialog box, which prompts the user to select the folder to save the DQR file.

3. Click **Open.** It displays the selection in the DQR file location field.

4. Click **Preliminary Rule Validation (PRV)**. It verifies the XML file against the rules specified in an external rules file (SCH file) and displays "Preliminary Rule Validation successful". Alternatively, if it displays "Preliminary Rule Validation Failed", then go to the View DQR tab, to analyze and rectify the errors.
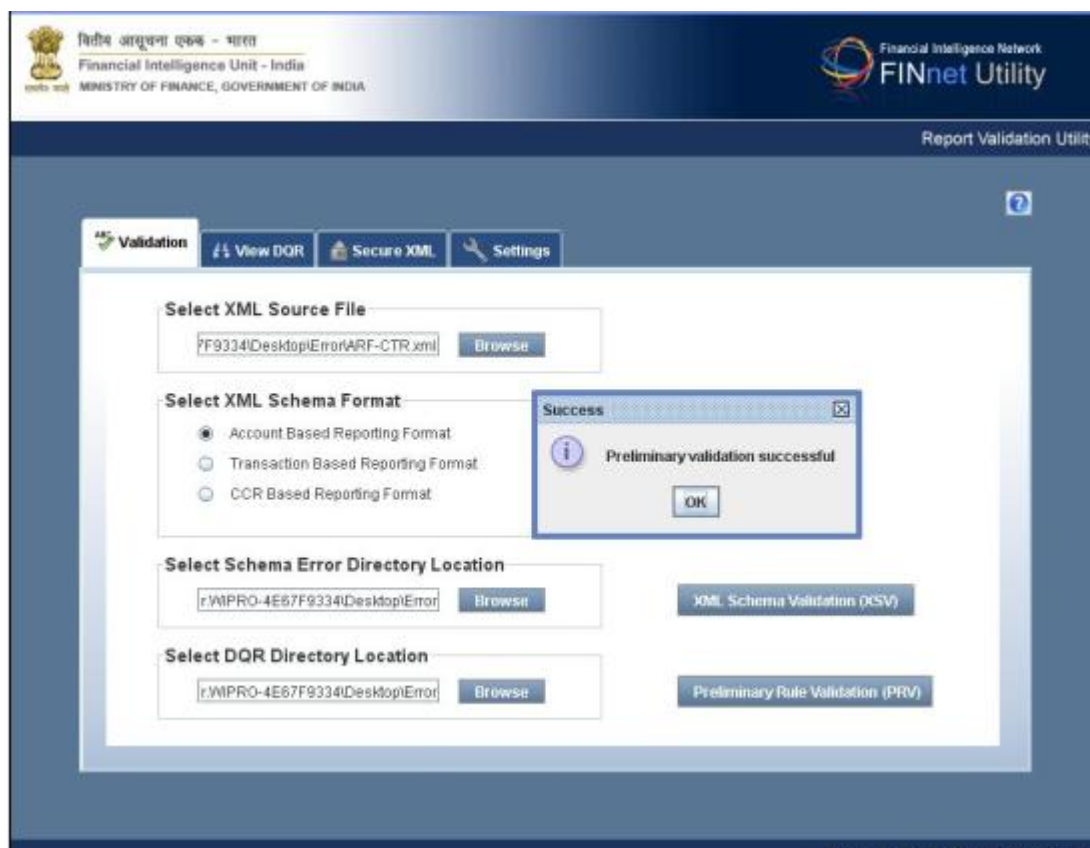
> **Note**: Details on Preliminary Rule Validation are provided in the Reporting Format Guide, which can be downloaded from the Downloads section of the FIU-IND website and FINnet Gateway Portal.

5.3 Frequently Asked Questions (FAQs)

5.3.1 What is XML Schema Validation?

XML Schema Validation (XSV) is the verification of XML file against the published FIU-IND schema (XSD file), which describes the content in a structured form. For more details, refer section 5.1.

5.3.2 What is Preliminary Rule Validation (PRV)?

Preliminary Rule Validation (PRV) is the verification of XML file against rules specified in an external rules file (SCH file). For more details, refer section 5.2.

5.3.3 What are the various types of errors?

Validation errors are categorized into schema error, fatal error, non-fatal error and probable error. For more details, refer section 6.

5.3.4 What are the types of Schema Errors?

Schema errors are errors in XML file on account of validation against the XML schema (XSD) i.e. relating to conformance with schema format, mandatory fields, data type, valid enumerations etc.

5.3.5 Can an XML file that fails schema validation be submitted to FIU-IND?

No. Reporting entities should rectify all schema errors, before submitting the XML file to FIU-IND.

5.3.6 Can an XML file that fails preliminary rule validation be submitted to FIU-IND?

Reporting entities can submit an XML file that contains errors related to preliminary rule validations. However, FIU-IND will reject reports that contain fatal errors. Reporting entities should resubmit all rejected reports as a replacement batch.

5.3.7 How can schema validation errors be identified?

On completion of schema validation, the utility saves an error file in the selected directory. Open the error with a text editor. The error file describes the line and column number of the element where error is detected.

5.3.8 How can preliminary rule validation errors be identified?

Reporting entities can use the 'View DQR' function to import the DQR and view preliminary rule validation errors. Refer section 6 for details.

6 View DQR

Data Quality Report (DQR) is an XML file, which contains information about errors in the submitted report. It facilitates the user to rectify the errors and generate a revised report. The DQR will be generated by the FIU after validation of the submitted report. However the reporting entity can also generate the DQR using the RVU to pre-validate the report. 'View DQR' tab of the RVU displays the data quality report. If the original XML report is linked to the RVU, it also displays the data element in which the error occurred.

> **Note**: Details on DQR Schema are provided in the Reporting Format Guide which can be downloaded from the Downloads section of the FIU-IND website and FINnet Gateway Portal.

6.1 Types of Errors

Validation errors are categorized into Schema error, Fatal error, Non fatal error and Probable error. The description of Error Type and its resolution are as under:
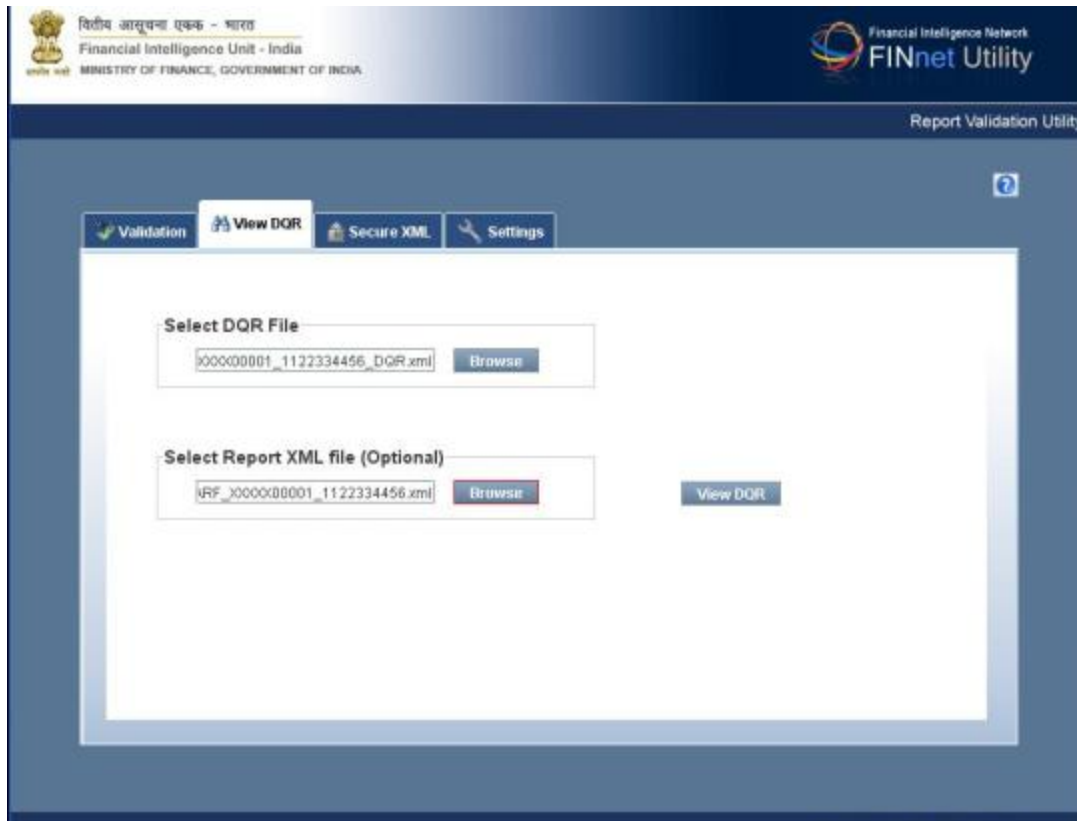
Error Type	*Error Description*	*Error Resolution*
Schema error (Mandatory)	Errors in XML file on account of validation against the XML schema (XSD)	The errors have to be resolved in XML file to enable schema validation by utility
Fatal error (Mandatory)	Errors in XML file which would result in rejection of report	A batch containing fatal errors will be allowed to be uploaded but reports with fatal errors will be rejected. The reporting entity would be required to resubmit revised reports after resolving fatal errors
Non fatal error (Optional)	Errors in XML file which will not lead to rejection of reports	No requirement to submit a revised report. These errors are taken into account to compute data quality rating. The errors may be resolved in future submissions
Probable error (Optional)	Errors in XML file which will not lead to rejection of reports	These are not confirmed errors. The reporting entity is required to verify and submit revised report only if error is confirmed

6.2 Link and View DQR

The user can link and view DQR as under:

1. Click **View DQR** tab. It displays **View DQR** window, which prompts the user to select the DQR and XML file location.

Figure 3: View DQR

2. Click **Browse** to select Data Quality Report (DQR) file. Select the DQR file and click **Open.** It displays the selection in the DQR file location field.

3. Optional Step: Click **Browse** to select XML file. Select the report XML file and click **Open**. It displays the selection in the report XML file location field.

> **Tip**: To analyze and rectify errors, select the report XML file and then click View DQR.

4. Click **View DQR.** It displays a new window with Error type(s), Validation rule(s), Message(s) and Path. Here, the user can view the error report.

Figure 4: View DQR – Report and Error Types
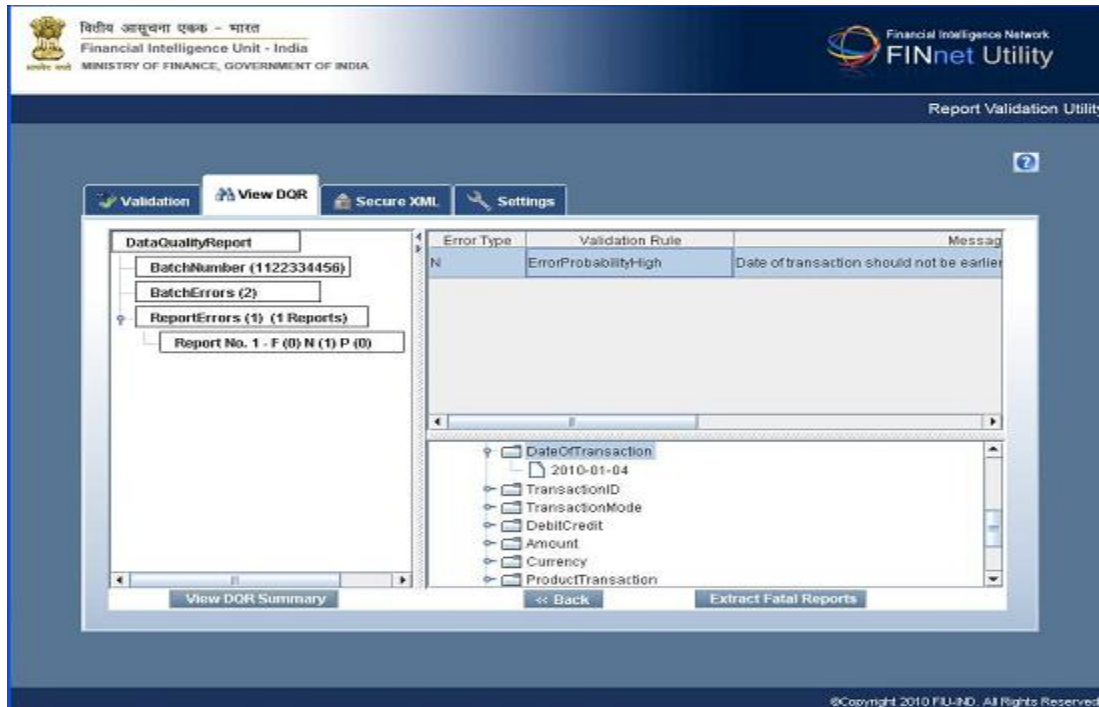
5. Select the elements in the left panel to view the errors. The left panel displays the Batch number, Batch Errors and Report Errors. A separate element displays the fatal errors.

6. Click on the element **BatchErrors** to view the details of batch errors.

7. Click on the element **ReportErrors** to view the total number of errors and number of reports having errors. The sub element gives the number of Fatal, Non-Fatal and Probable errors in the selected report.

8. Click on a specific **Report No**. to view the details of the error records. The lower portion displays a tree structure, pointing to the error location. Repeat similar procedure to view and analyze all error(s).

9. Click on the element **FatalReportErrors** to view the total number of fatal errors and number of reports having fatal errors.

10. Click on **View DQR Summary** button to display a summary of validation results.

6.3 Extract Fatal Reports

If the Report Batch has reports with fatal errors, the user can generate a new batch of replacement report as under:

1. From View DQR tab, click **Extract Fatal Reports**. It displays a new open dialog box, which prompts the user to select the desired location and save the new XML file containing reports with fatal errors.

2. Click **Open** the saved XML file to rectify the errors and resubmit to FIU-IND.

> **Note**: Report Generation Utility helps the user to rectify fatal errors.

6.4 Frequently Asked Questions

6.4.1 What is a Data Quality Report?

Data Quality Report is an XML file, which contains information about errors in the submitted report. It facilitates the user to rectify the errors and generate a revised report.

6.4.2 How does the user get the Data Quality Report?

FIU-IND will generate a Data Quality Report, after processing the submitted batch of reports. The user can also generate a Data Quality Report using the Report Validation Utility.

6.4.3 How to view the Data Quality Report?

The 'View DQR' tab in the Report Validation Utility allows the user to view the Data Quality Report. Refer section 6 for more details.

6.4.4 What are the types of Fatal Errors?

Fatal errors are rule validation errors in XML file, which would result in rejection of reports. A batch containing fatal errors can be uploaded, but reports with fatal errors will be rejected. The reporting entity would be required to resubmit revised reports, after resolving fatal errors. Sample validation rules for fatal errors are as under:

S. No.	Validation Rule	Rule Description	Example
1	MandatoryValueFatal	The element should not be blank	Address of person is blank
2	SufficiencyLengthFatal	The data element should be of sufficient length	Name is less than 5 characters
3	ConsistencySum	The value should be equal to the sum of value of data elements	The total amount does not match with the sum of transaction amounts in the report

6.4.5 What are the types of Non Fatal Errors?

Non Fatal Errors are errors in XML file, which will not lead to rejection of reports. There is no requirement to submit a revised report. These errors are taken into account to compute data quality rating. The errors may be resolved in future submissions. Sample validation rules for non-fatal errors are as under:

S. No.	Validation Rule	Rule Description	Example
1	MandatoryValueNonFatal	The Data element field should not be blank	PAN of person is blank
2	SufficiencyElementNonFatal	At least one element should be present	At least one individual for the account should be included
3	SufficiencyLengthNonFatal	The data element should be of sufficient length	The address does not exceed 8 characters
4	ConsistencyValue	The value should be greater or less than the value of data element	The sum of transactions during the month is more than the sum of transactions during the year

6.4.6   What are the types of Probable Errors?

Probable errors are errors in XML file which are not confirmed errors. The reporting entity is required to verify and submit revised report only if error is confirmed. Sample validation rules for probable errors are as under:

S. No.	Validation Rule	Rule Description	Example
1	ErrorProbablityHigh	The probability of error is High	The transaction value is same as the account number
2	ErrorProbablityMedium	The probability of error is Medium	The value of a single cash transaction exceeds 1billion INR
3	ErrorProbablityLow	The probability of error is Low	There are multiple transactions of the same value on the same day

6.4.7   How to rectify the errors in batch?

The error can be resolved by resubmitting a replacement batch. The replacement batch may only contain the reports which need to be replaced.

6.4.8   How to link DQR to the original XML report file?

Use the 'View DQR' window to link the DQR original XML report. Refer section 6.3 for details.

6.4.9   How to extract a new XML batch containing fatal errors?

Use the 'Extract Fatal Errors' button in 'View DQR' window to create a new XML batch that contains reports containing fatal errors. Refer section 6.3 for details.

6.4.10   How to view the DQR summary?

Use the 'View DQR Summary' button in 'View DQR' window to view the DQR summary. Refer section 6.2 for details.

7   Secure XML

The Validated XML file should be converted to a Hash XML prior to upload. The User has the option to digitally sign the Hash XML to secure the file prior to upload on FINnet Gateway.

7.1   Hash XML

The Hash XML function ensures integrity of contents of the XML file. This function should be used before uploading the file on the FINnet Gateway. A hash of the contents in XML file is generated and attached to the XML file. During upload of the XML file, FINnet Gateway will not accept the XML file if contents are modified after generation of hash.

1. Click **Secure XML** tab. It displays **Secure XML** window, which prompts the user to select the validated XML file and target directory file.

Figure 5: Hash XML
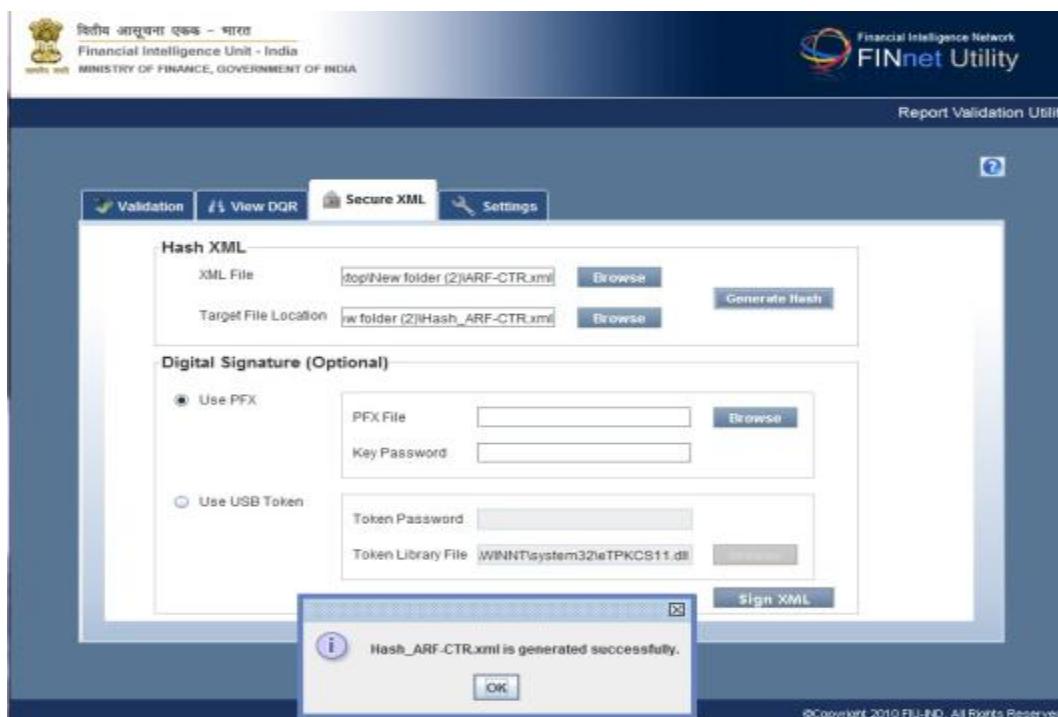
2. Select the validated XML file.

3. Select the target file location.

4. Click **Generate Hash** to generate hash for the XML file**.** The hash XML file is ready for upload to FINnet Gateway.

> **Note**: Rectify errors or update data in the XML file before generating the hash XML. Any modifications to the hash XML will result in failure during upload of XML file in FINnet Gateway. Users with digital certificates are encouraged to digitally sign the reports before upload.

7.2   Digital Signature

The Digital Signature function, though optional, ensures non repudiation and authenticity of the reports to be uploaded. The user can select the PFX or the USB token option to digitally sign the report.

In case of PFX, select **Use PFX** option. The PFX file has to be selected from the specified location and the **key password** to be entered before clicking on **Sign XML**

Figure 6: Hash XML digitally signed using PFX option
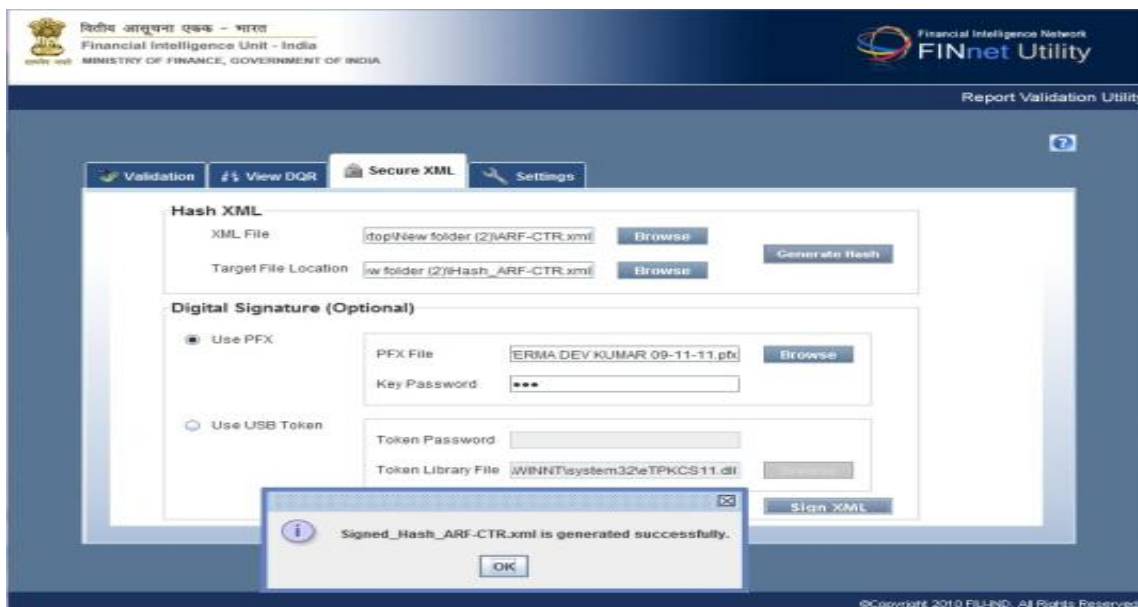
In case of USB token, select **Use USB Token**. The user has to enter token password and select the token library file before Clicking on **Sign XML.**

Figure 7: Hash XML digitally signed using USB token

7.3 Frequently Asked Questions

7.3.1 What is the need for Hash XML?

The Hash XML function ensures the integrity of contents in the XML file. Refer section 7 for details.

7.3.2 Can XML file be uploaded without generating a hash?

No. The Validated XML file should be converted to a Hash XML before uploading on FINnet gateway.

7.3.3 Can Hash XML file be viewed using RGU or RVU?

No. Hash XML file cannot be viewed using Report Generation Utility or Report Validation Utility.

7.3.4 Whether the Hash XML files can be linked by the RVU to view details of DQR?

No. Hash XML file cannot be linked by RVU to view details of DQR.

7.3.5 Whether the reporting entity user has to retain both XML and hash XML?

The reporting entity needs to retain only the XML file.

7.3.6 Can the XML file be modified after converting it into a Hash XML?

No. If the XML file is modified after converting it into a Hash XML, it cannot be uploaded on the FINnet Gateway. An error will be displayed during upload.

7.3.7 Should the user hash the XML before the file has to digitally signed?

Yes. It is mandatory to hash the validated XML file before digitally signing the file.

7.3.8 Why should the file be digitally signed?

The digital signature ensures authenticity and non repudiation i.e. the file received is the one that was sent

7.3.9 When does the authorized user upload the digital certificate?

The authorized user can upload the digital certificate at the time of Registration or at any time subsequently using the Profiles module of FINgate.
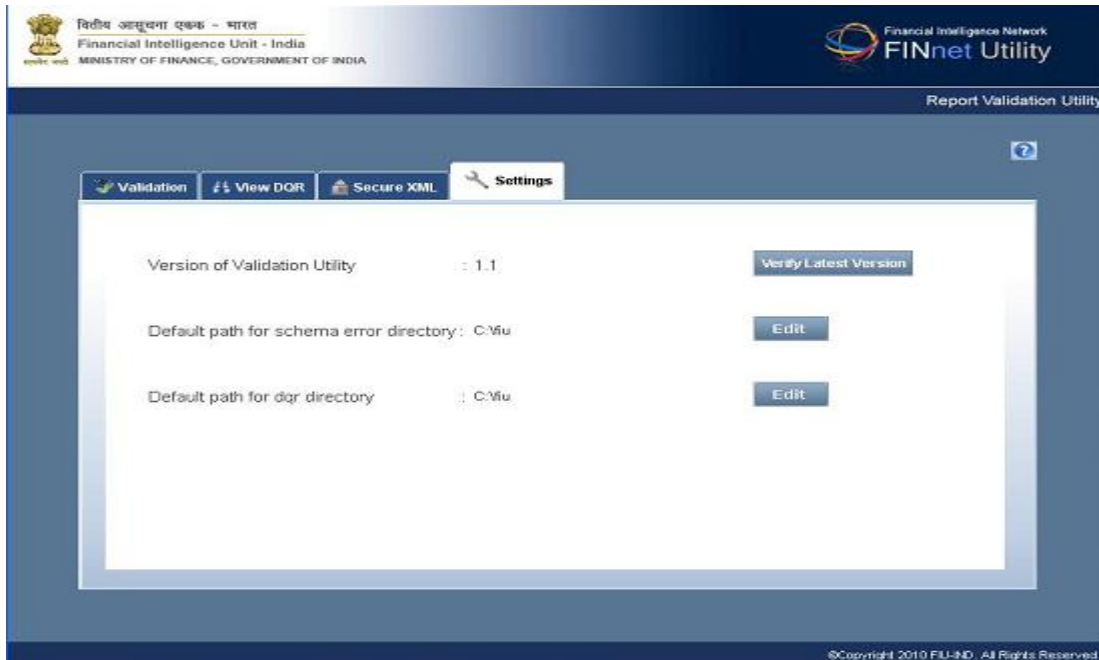
7.3.10 When does the system identify and check the validity of the digital certificate?

The system identifies and checks the validity of the certificate at the time of report upload.

8 Settings

This settings tab describes the version and other settings in the utility.

Figure 8 – Settings

8.1 Validation Utility – Version details

It displays the existing RVU version, and prompts the user about the latest version released by FIU. In case a newer version is available, the user may download the same.

8.2 Default path for Schema error directory

By default, the target or actual location of the Data file is C:\Documents and Settings\user name\Schema error file. The user can change the default path of the schema error file as under:

1. Click **Settings** tab. It displays Default paths for data and other files.
2. Click **Edit** from Schema error directory.
3. Select the folder to save the data files, and click **Open**. It saves the new directory.

8.3 Default path for DQR

By default, the target or actual location of the Data file is C:\Documents and Settings\user name\DQR file. The user can change the default path of the DQR file as under.

1. Click **Settings** tab. It displays Default path for data file and others.
2. Click **Edit** from Default path for DQR file.
3. Select the folder to save the DQR files, and click **Open**. It saves the new directory.

8.4   Frequently Asked Questions (FAQs)

8.4.1   How to verify the current and find the latest Report Validation Utility version?

Settings tab allows the user to verify the current and latest utility version. For more details refer Section 8.1 of this document.

8.4.2   How to provide default path for DQR file?

Settings tab allows the user to view/edit the default path for DQR files. For more details refer Section 8.3 of this document.

8.4.3   How to generate default path for Schema error file?

Settings tab allows the user to view/edit the default path for Schema error file. For more details refer Section 8.2 of this document.

9   Troubleshooting

9.1   Troubleshooting the utility

Trouble	Probable Causes	Solution
Unable to download the RVU	Slow/No Internet connectivity	Check your internet connection
	Unable to download file using Internet explorer	Check your security setting under Internet Options.
	Website is not functional	Try to download after sometime or contact FIU helpdesk
	Download link not appropriate	Try to download after sometime or contact FIU helpdesk
Unable to run RVU.bat file	No Java Software	Report Validation Utility requires JDK version 1.6 or later versions.
	Utility not properly downloaded	Delete the existing utility and download again
	Computer infected with virus	Check and remove virus using Anti-Virus software
	Utility not properly extracted	Right click the zipped file, click extract to desktop and run the .bat file

9.2   Troubleshooting Error messages

Module	Error Message	Solution
Validation	*Invalid file*	Select a valid XML file
Validation	*Selected file not found*	Select a valid XML file
Validation	*Xml file cannot be created*	Create valid target file directory
Validation	*Schema validation failed*	Refer error file and rectify schema errors
Validation	*Preliminary rule validation failed*	Refer DQR file, and rectify the failed preliminary rule validation errors
View DQR	*Invalid file*	Select a valid XML file
View DQR	*Xml file not found*	Select XML file in View DQR tab
View DQR	*Xpath not correct*	XPath is null or Specify the complete path.
View DQR	*Selected directory does not exist*	Create a valid directory

10 Glossary

Data Quality Report (DQR)	Data Quality Report is a XML file, which contains information about errors in the submitted report. It facilitates the user to rectify the errors and generate a revised report.
eXtensible Markup Language (XML)	Extensible Markup language (XML) is a set of rules for encoding document in machine readable form.
Key Validation	Key validation refers to the primary and foreign key validations. Primary key identifies each record uniquely in the table, and foreign key points to the primary key in another table.
Preliminary Rule Validation (PRV)	Preliminary Rule Validation is verification of XML file using rules, which can be pre-validated before submission. These rules are specified in external rules file (SCH file) shared with the reporting entities.
Reporting Entity	A reporting entity is a banking company, financial institution or an intermediary covered under PMLA.
Reporting Format	The reporting formats are Account based reporting format (ARF) for reporting of account based CTRs, STRs and NTRs; Transactions based reporting format (TRF) for reporting of transaction based CTRs, STRs and NTRs; and CCR reporting format (CRF) for reporting of counterfeit currency reports (CCRs)
Reporting Format Guide	Reporting format guide contains the detailed specifications of the reporting format and validation rules. It can be downloaded from the Downloads section of the FIU-IND website and FINnet Gateway Portal.
Structural Validation	Structural validation check analyzes the mandatory and non-mandatory fields. In addition, it validates the data type.
XML Schema Definition (XSD)	XML Schema Definition (XSD) is an XML-based language used to describe and control XML document contents. XSD provides the syntax and defines a way in which elements and attributes can be represented in an XML document
XML Schema Validation (XSV)	XML Schema Validation is the verification of XML files against the published schema (XSD file).

11 List of additional documents and files

User Guides

- Report Generation Utility User Guide
- FINnet Gateway User Guide

XML Schemas

- AccountBasedReport.xsd
- TransactionBasedReport.xsd
- CCRBasedReport.xsd
- FIU-INDSchemaLibrary.xsd
- DataQualityReport.xsd

Editable PDF forms

- Cash Transaction Report (Account Based)
- Cash Transaction Report (Transaction Based)
- Suspicious Transaction Report (Account Based)
- Suspicious Transaction Report (Transaction Based)
- Counterfeit Currency Report