

Document

Version

Year

Report Generation Utility User Guide

1.2

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 in the report validation utility. <ul style="list-style-type: none"> • Introduction (sections 1.6, 1.7, 1.8)
1.2	November 2012	Changes in batch handling process (section 1.8) and screen for XML generation from Text file version 2.0 (section 6.3.1)

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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 related 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 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 XML generation
- 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

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

1.6 Report Validation Utility

The Report Validation Utility enables user to validate 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.

The user guide for RVU provides detailed documentation on using 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 guide 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 new user.
- Home page to display summary of actionable items (unread messages, pending reports, overdue reports etc.) and new content (Downloads, 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 for web filing of reports and upload report, view the upload history, rejected reports, reports where additional information is required and overdue reports. A report summary of reports submitted by the reporting entity is also provided.
- 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 entity who would be using the Report Generation Utility (RGU) are the users of this document.

2.2 Document Conventions

This guide uses the following conventions:

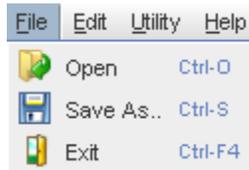
- Menu items, Options, Dialog boxes and Functions are mentioned in **Bold**.
- Error messages are displayed in *Italics*.
- Angle brackets (>) indicate the progression of menu choices the user should select in a graphical user interface (GUI).
- **Tip** provides easier methods to accomplish tasks.
- **Caution** means to take extra care, to avoid errors.
- **Note** provides additional information.

3 Menu, Toolbar, Messages and Tooltips in the utility

The utility contains menu items, toolbars, messages and tooltips.

3.1 Menu Items

The Utility Menu is composed of a drop-down list that displays different commands. The menu items in the utility are File, Edit, Utility and Help.

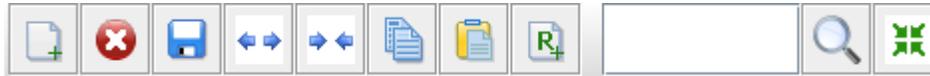


The details of sub-menu are as under:

Menu Item	Sub-Menu Item	Action
File	Open (Ctrl + O)	Open a pre-saved utility file.
	Save As (Ctrl + S)	Save copy of the data. Data saved in Tree structure window are saved in .xml format. Data saved in Grid structure window are saved in .ser format.
	Exit (Ctrl + F4)	Close the utility window.
Edit	Cut (Ctrl + X)	Cut the selection to place it at another location or clipboard.
	Copy (Ctrl + C)	Copy the selection to place it at another location or clipboard.
	Paste (Ctrl + V)	Paste the contents of the clipboard.
	Delete	Delete the selected cell, row, or column from the grid.
Utility	Reset	Clear data and return to the main window of the utility.
	Data Capture	Go to the Data Capture tab of the utility.
	XML Generation	Go to the XML Generation tab of the utility.
	Settings	Go to the Settings tab of the utility.
Help	Help Contents	Display help.

3.2 Toolbar

The Report Generation Utility toolbar has a list of pre-arranged command icons. These icons in the toolbar are shortcuts that allow the user to control utility functions.



For more details on the toolbar, refer Table 1 of section 5.1.

3.3 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.	<i>Setup completed successfully.</i>
Caution		Informs the user about a situation that requires intervention or correction before work can continue.	<i>The file could not be found. Enter the correct file name or select a valid file.</i>

3.4 Utility Tool tips

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

Message Type	Symbol	Example
Tool tip		When the user hovers the cursor over the Structural Validation button, a tool tip appears.

4 Getting Started

4.1 Downloading the utility

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

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 the **list of downloads** Click on **Report Generation Utility**. It allows the user to save the file in the location given by user.

Tip: The user can save the url of the FINnet Gateway portal as Favorites in the browser.

4.2 Prerequisites for installing Report Generation Utility

The Report Generation Utility (RGU) requires Java Development Kit (JDK) and Unzip software.

1. Java Development Kit (JDK)
 - It allows the user to run Java supported programs. Report Generation 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/javase/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 RGU file.

4.3 Deploying the utility

Once the JDK version 1.6 or later is installed, the Report Generation Utility (RGU) can be deployed on to your computer as follows:

1. Create a new folder on the desktop or in a specified location.
2. Rename the new folder as **RGU**.
3. Extract the downloaded file to the folder using tools like WinZip or WinRAR.

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

4.4 Running the utility

After the JDK version and utility is installed, the Report Generation Utility (RGU) can be run as under:

1. Go to the folder (RGU) where the contents of the Report Generation Utility (RGU) have been extracted (refer section 4.3).
2. Click on **RGU.bat** file. It displays the Report Generation Utility default window.
3. Upon running the utility, RGU and 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 Generation Utility on to the desktop?

The Report Generation 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, the message *Download Complete* appears.

4.5.3 How to check the size of the utility?

Right click on the folder icon. 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 using WinZip or WinRAR tools. For more details refer section 4.2.

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

Yes. Report Generation 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 **RGU.bat** file to run the utility. For more details, refer section 4.4.

5 Data Capture

Data Capture module allows the user to capture data using any one of the following five methods:

- Data Entry in Blank XML Report:** The user creates a new Blank report by entering data into a tree structure format.
- Data Entry in Text files version 2.0:** The user can enter data in the utility grid. In addition, user can paste the data from Excel file or merge data from fixed width text files.
- Import XML Report:** The user can import an existing XML file into the tree structure format. In addition, it helps the user to edit/modify, merge a new report and save as an XML file.
- Import Text files version 2.0:** The user can import data in fixed width text files of data structure version 2.0.
- Import Saved Grid Data:** The user can import a saved Grid data into the Report Generation Utility.

5.1 Data entry in Blank XML Report

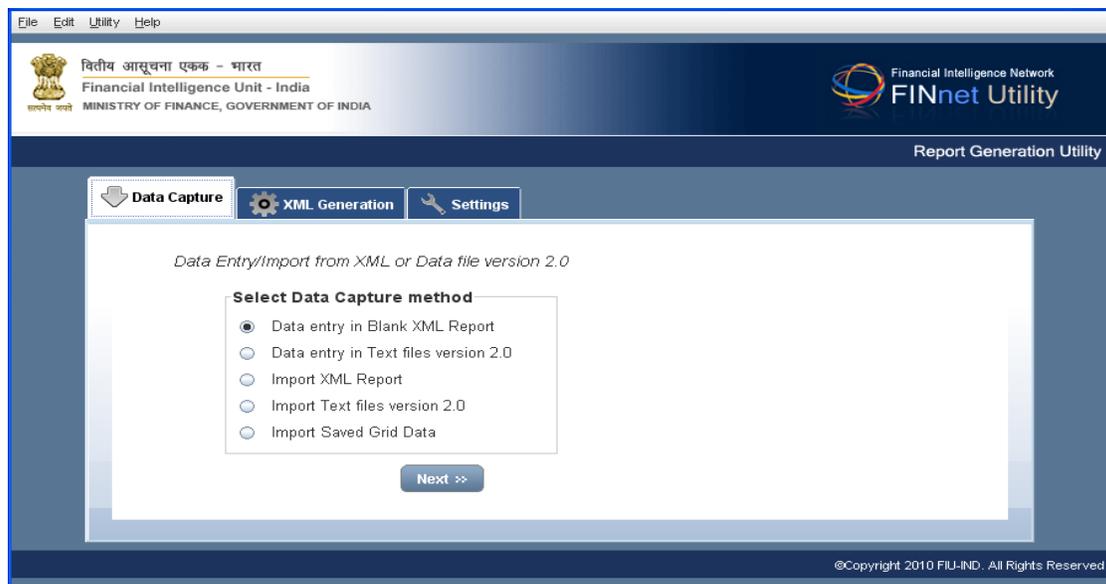
This section describes how to create a blank XML report and enter data in the XML tree structure.

5.1.1 Opening a Blank XML Report

The user can create a blank XML report as follows:

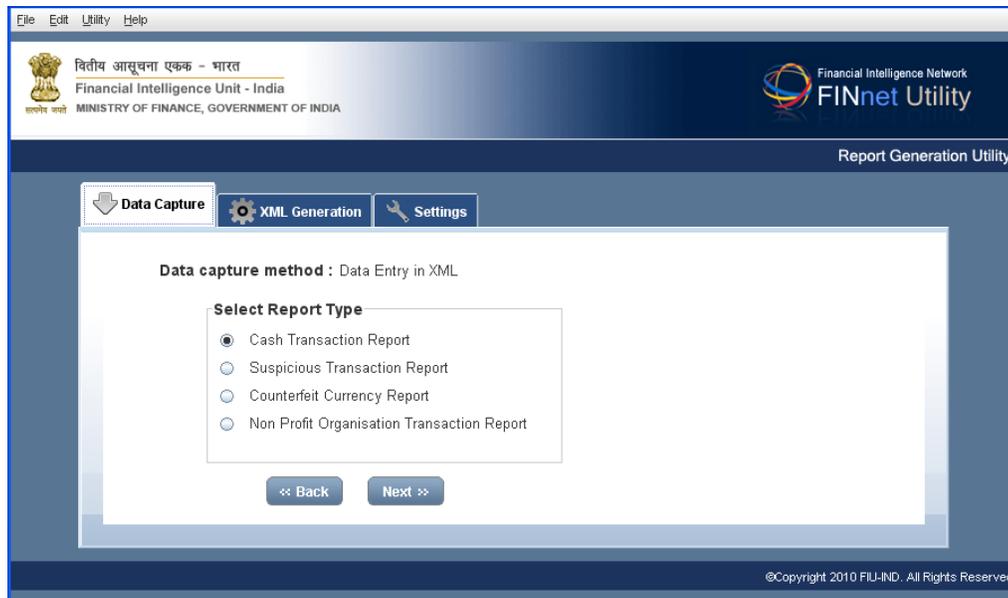
1. Select the **Data Capture** tab to go to Data Capture window.
2. Select the Data Capture method **Data Entry in Blank XML Report**.

Figure 1: Data Capture methods



3. Click **Next**. It navigates the user to the next window to select Report type.

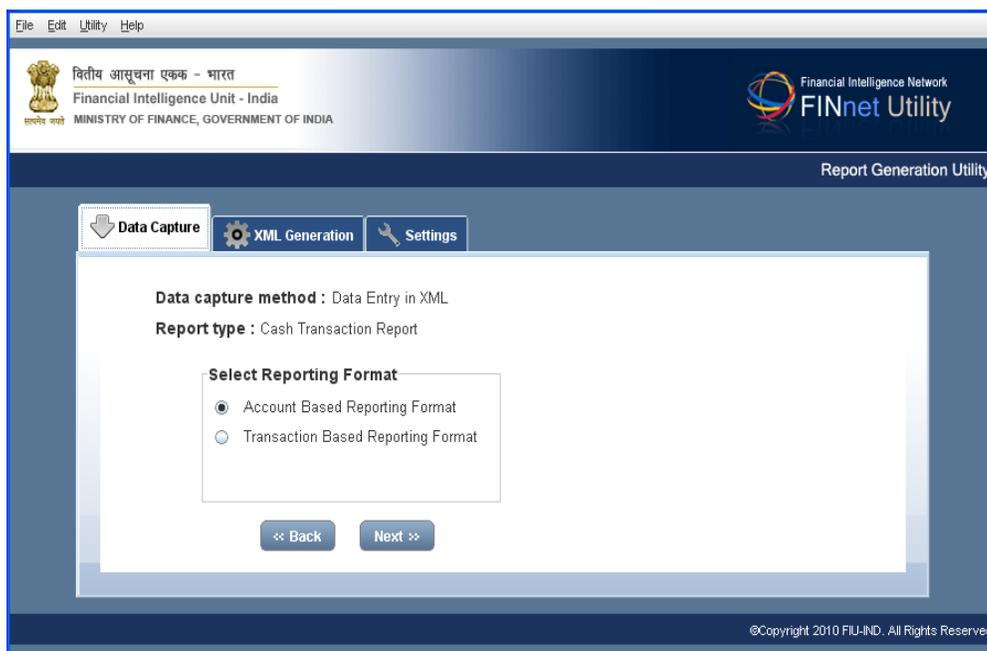
Figure 2: Data Capture - Report types



4. Select the **Report type**.
5. Click **Next**. It navigates the user to the next window, to select the Reporting format.

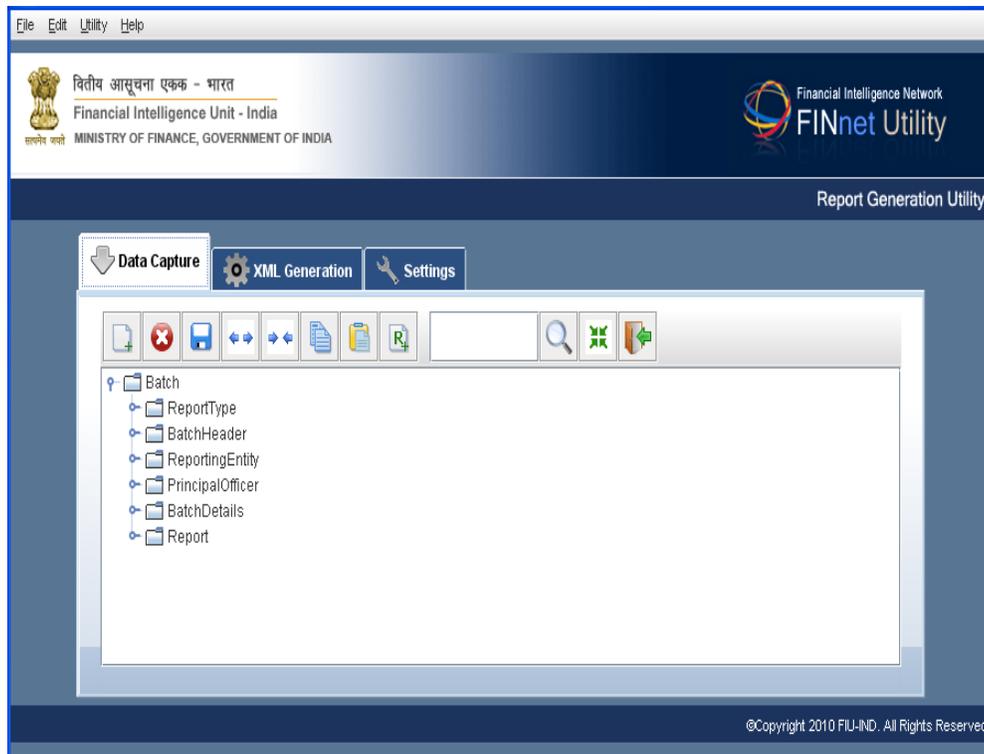
Note: If the user selects Counterfeit Currency report, then the utility skips the Reporting format and directly displays the tree structure.

Figure 3: Data Capture – Reporting Format



6. Select the **Reporting format**. (Account/Transaction based reporting format).
7. Click **Next**. It navigates the user to the next window, which displays a tree structure.

Figure 4: Data Capture - Tree Structure



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

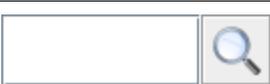
5.1.2 Using toolbar in XML Tree structure

The Report Generation Utility toolbar has a list of arranged command icons, to allow the user to manage data in the XML tree structure.



Following table gives an overview of Toolbar options used in Tree Structure and Data Grid window:

Table 1: Toolbar options

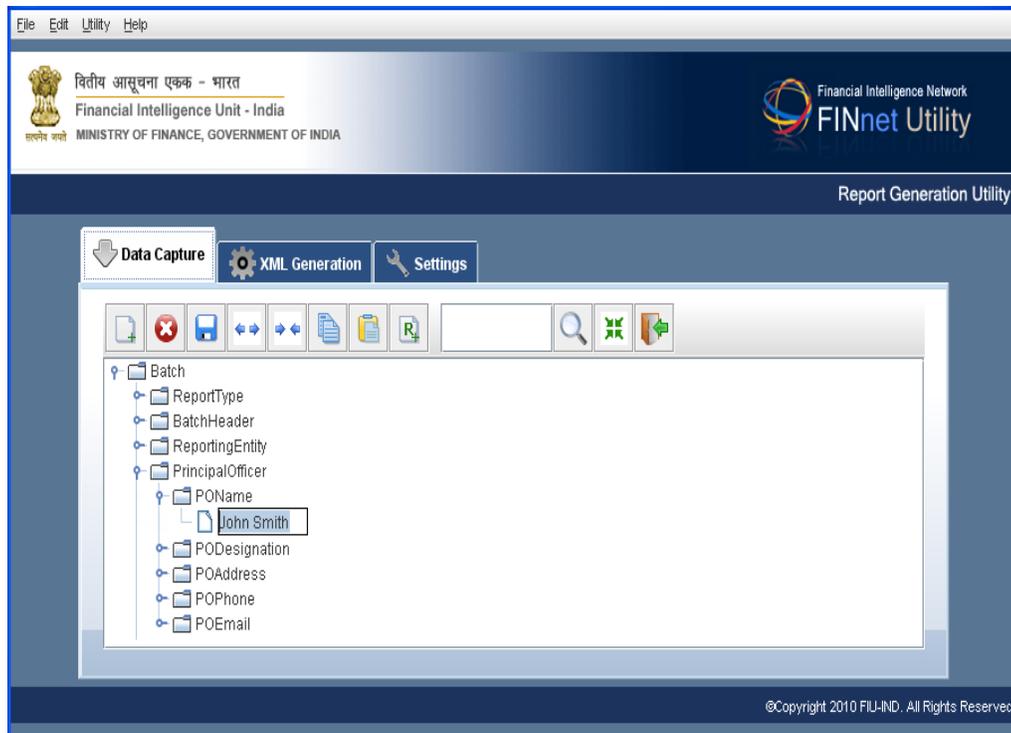
Image	Description	Action
	Add new XML element:	Adding a new XML element to the tree structure
	Delete XML element	Delete the XML element
	Save As	Save a copy of the data (.xml format in Tree structure and .ser format in Grid structure)
	Copy Element	Copy element to paste in the location
	Paste Element	Paste the copied element in the location
	Add New Report Element	Create a report element
	Search Report Serial Number	Search the Report element on the basis of the serial number
	Expand tree	Expand the tree element
	Collapse tree	Collapse the tree element
	Merge Report Element	Merge two or more report files

5.1.3 Data Entry in XML Tree structure

Data entry in XML tree structure conforms to xml schema published by FIU-IND and retains the integrity of data set, structure and content. The user can enter data in tree structure as follows:

1. Go to the relevant element in XML tree structure. For e.g., to enter Principal Officer's name, click **POName** from the **PrincipalOfficer** element and type the name of the Principal Officer.

Figure 5 - Data Capture - Enter data in the Tree Structure



2. From Utility toolbar click **Save As** icon. It displays a new **Save** window, to save the file in the location given by user.
3. Type a **File Name** in the **File name** field and click **Save**. It saves the data in XML format.

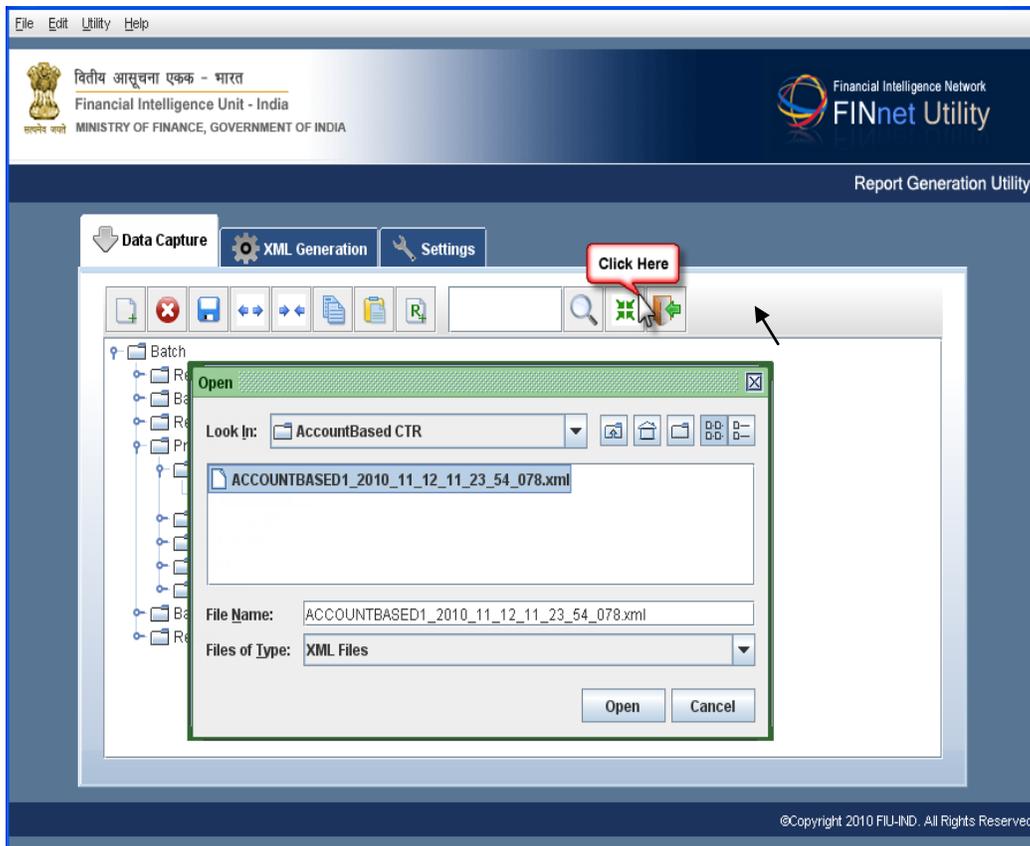
Note: Use Import XML Report from Data Capture tab to view/edit the saved XML report.

5.1.4 Merging data in a XML Tree structure

Merge Report Element helps to combine two or more XML files into one. The steps involved are:

1. Click **Merge Report**. It displays a new open Dialog box, to open the XML file.

Figure 6: Data Capture - Tree Structure - Merge Report



2. Select the XML file to be merged and click **Open**. It merges the file with the currently loaded file and displays the merged data in the tree structure.

Caution: In merging files, the utility retains the data from Report Type, Batch Header, Reporting Entity, Principal Officer and Batch Details of the currently loaded XML data. The report level data of the subsequent files will be merged to the existing file.

Note: Use Import XML Report option in Data Capture tab to view/edit the saved XML file.

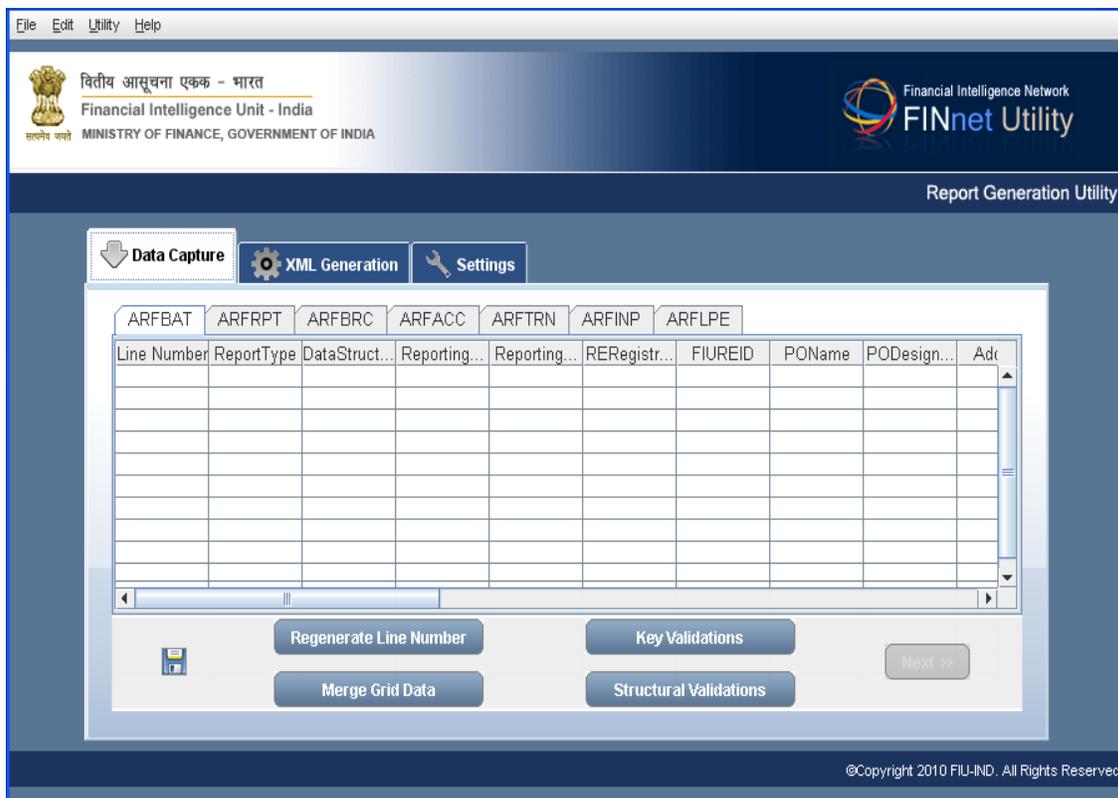
5.2 Data entry in Text files version 2.0

This section describes how to manually enter data in the utility grid. The user can paste data in the grid, according to the column headers. A new/existing XML data file can be inserted into the grid, using Open command from the File menu. In addition, the user can merge one or more reports into the existing grid.

5.2.1 Data Entry in Grid structure

1. Select the option **Data Entry in text files** in the **Data Capture** tab.
2. Click **Next** to select the Reporting format. (Refer Figure 2 – Reporting format).
3. Select the **Reporting format**. (Account/Transaction/Counterfeit Currency based report).
4. Click **Next** to enter the data manually in the data entry grid window,.

Figure 7: Data Capture - Grid (Version 2.0)



The screenshot displays the 'Data Capture - Grid (Version 2.0)' window. At the top, there is a menu bar with 'File', 'Edit', 'Utility', and 'Help'. Below the menu bar, the header contains the logo of the Ministry of Finance, Government of India, and the Financial Intelligence Network (FINnet) logo. The main area features a 'Data Capture' tab with a grid for data entry. The grid has columns: Line Number, ReportType, DataStruct..., Reporting..., Reporting..., RERegistr..., FIUREID, POName, PODesign..., and Addr. Below the grid are buttons for 'Regenerate Line Number', 'Merge Grid Data', 'Key Validations', 'Structural Validations', and 'Next >>'. A copyright notice at the bottom reads '@Copyright 2010 FIU-IND. All Rights Reserved.'

5. Enter the data in the respective grids and tabs and Save the data using Save button.

Following table explains the Data Grid buttons:

Table 2: Data Grid window buttons

Data Grid window buttons	Description
 Save	Saves the Grid data. To import the saved data, use Import Text Files version 2 method.
	Line numbers are ordered sequentially.
	Merge one or more text files into one.
	Validates primary key (identifies each record uniquely in the table) and foreign keys (foreign key points to the primary key in another table).
	Validates the data type and mandatory fields.
	Navigates to XML Generation tab.

5.2.2 Performing Key Validations

Key Validation refers to 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. The steps involved are:

1. Click **Key Validations**. It displays a Key Validation dialog box.
2. Click **Browse**. It displays an open dialog box, to select the folder and save the error message file.
3. Click **Next**. It displays the message *Key Validation check completed successfully*. Alternatively, if it displays the message *Key Validation check completed with errors*, then open the saved error description file and rectify the errors.

5.2.3 Performing Structural Validations

Structural validation checks the data type and mandatory fields. If the report contains such errors, it would be rejected at the schema level validation. The steps involved are:

1. Click **Structural Validations**. It validates the data. On validating the data, the utility displays the message *Structure Validation completed successfully*. Alternatively, the utility displays the message *Structure Validation completed with errors*.
2. To examine the errors, double click on the **Error Description** bar. (Refer Figure 8 & 9: Data Capture Grid – Error Description and bar).
3. Click the **Error Description** field. It navigates the user to the error location prompting the user to rectify the error. Repeat the same procedure to rectify all structural errors till the structural validation displays the message *Structure validation completed successfully*.

Figure 8: Data Capture Grid – Error Description bar

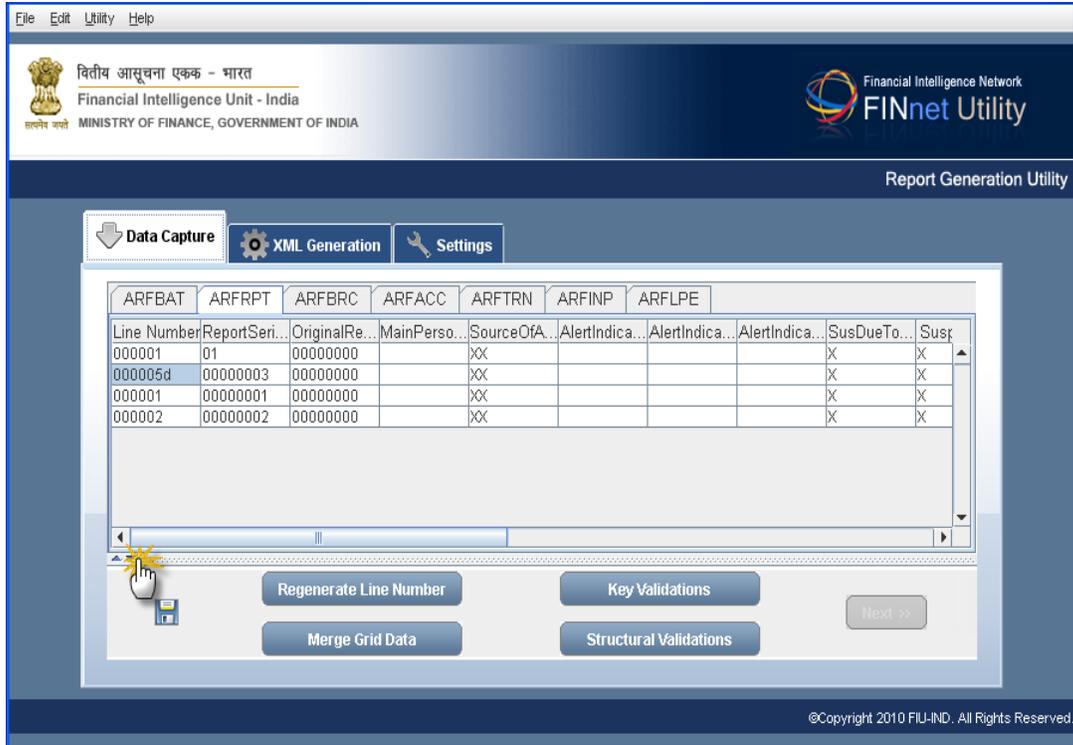
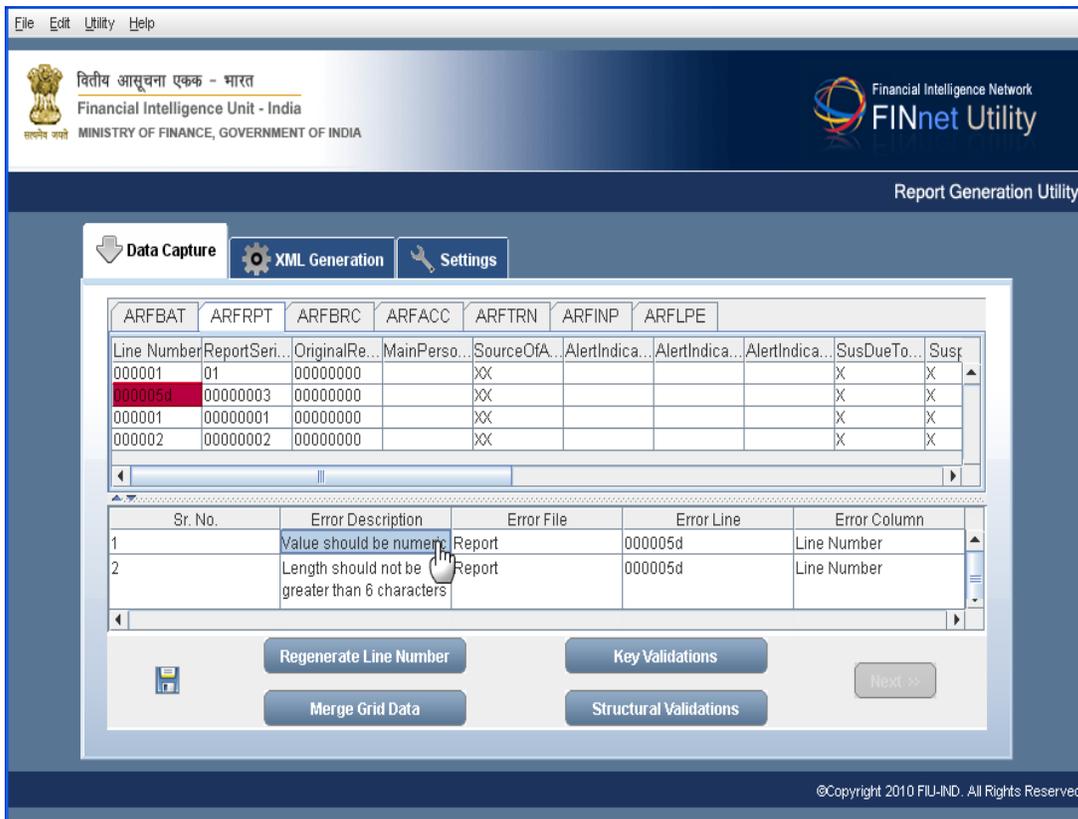


Figure 9: Data Capture Grid – Error Descriptions

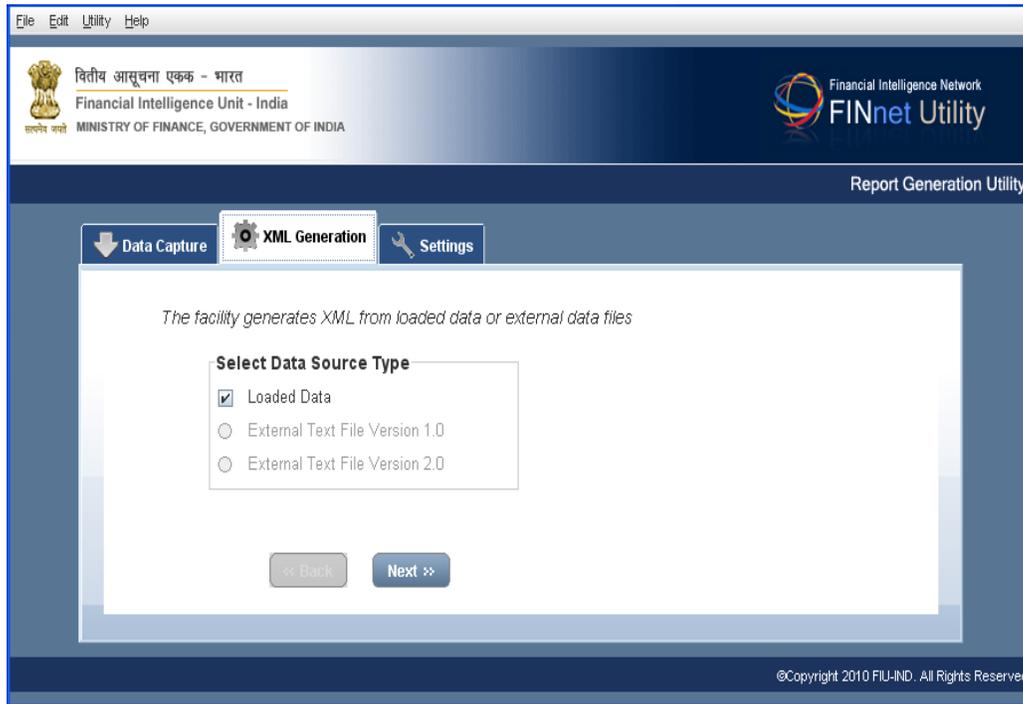


5.2.4 Generating XML file

Users can generate an XML file using the Loaded Data option only when structural and key validations are completed. The steps involved are:

1. After completing structural validations, click **Next** in the XML Generation window and the option **Loaded Data** is pre-selected as **Data Source Type**.

Figure 10: XML Generation – Loaded Data



2. Click **Next** to select the directory and save the new XML file.
3. Click **Browse**. It displays an open dialog box, to select the XML data folder directory.
4. Click **Generate XML** to generate the data in XML file format. The message displayed is *XML Generated Successfully*.

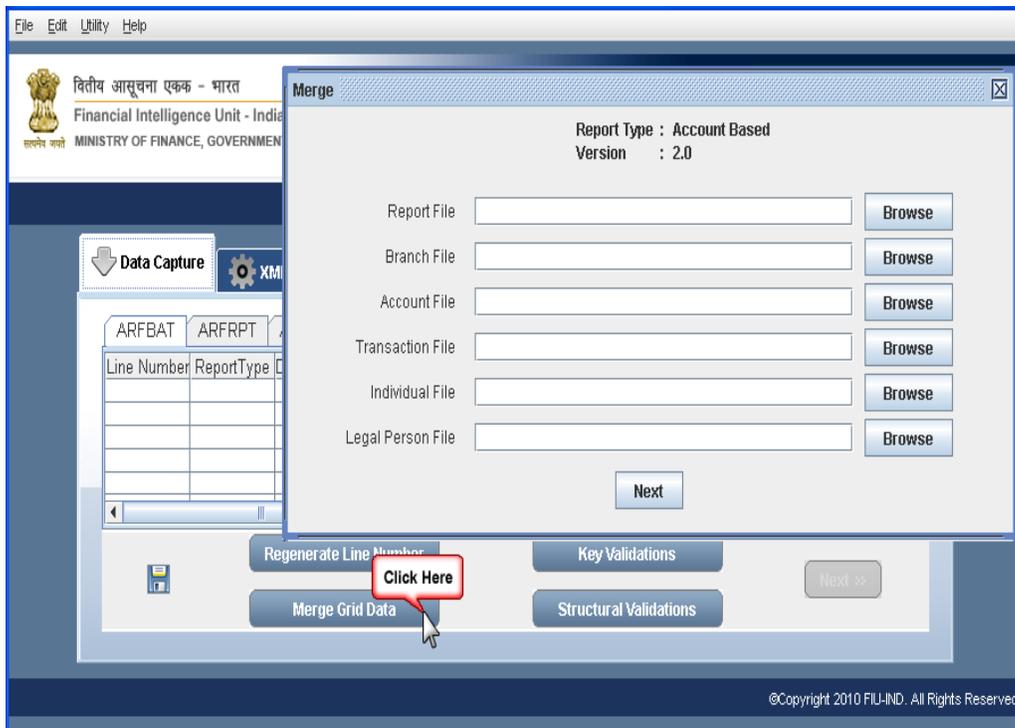
Note: Refer Settings to find the Default path for XML file.

5.2.5 Merging data in the Grid Structure

The utility provides the facility to consolidate multiple files in the merge grid data option. The steps involved are:

1. Click **Merge Grid Data**. It displays **Merge** dialog box, to merge the files.
2. Click **Browse**. It displays an open dialog box, to select the file.

Figure 11: Data Capture – Merge Grid Data



3. Select the file and click **Next**. It unifies and displays the merged data in the grid.
4. View/Edit the merged data.
5. Click Save. It displays an open dialog box, to enter new file name.

5.3 Import XML Report

This section describes how to import an existing XML report in a tree structure. This tree structure mirrors the XML report format. In this window, the user can edit and create an XML batch containing multiple reports. The steps involved in importing XML file are:

1. Select the data source option **Import XML Report** under **Data Capture** tab. It prompts the user to the next window. (Refer Figure 1: Data Capture method)
2. Click **Next** to select the Report type.
3. Select the **Report type**. (Cash transaction/Suspicious transaction/Counterfeit currency/Non Profit Organization Transaction report).
4. Click **Next** to select the **Reporting format**. (Account/Transaction based reporting format).
5. Click Next. It navigates the user to File Location window, to import the XML file.
6. Click Browse. It displays a new open dialog box, to select the location and file.
7. Select XML file and click **Ok**. On selecting the file the utility prompts the user to the next window.
8. Click **Next**. It navigates the user to a new tree structure window.

Tip: The grid format is easier to work as it provides various data management functions, such as paste data, merge reports etc.

5.4 Import Text files version 2.0

This section describes the procedure, to import text files data into the grid. Each line in the text file is written into one row in the grid. Items in the text file are separated into columns, in the utility grid. In addition, it helps the user to edit/modify, merge a new file and generate a new XML file. The steps involved in importing text files are:

1. Select the data source option **Import Text files Version 2** under **Data Capture** tab. It prompts the user to the next window. (Refer Figure 1: Data Capture method).
2. Click **Next** To Select the **Reporting format**. (Account Based Report, Transaction Based Report and Counterfeit Currency Report). Refer Figure 2: Reporting Format for details.
3. Click **Next**. It navigates the user to Directory Location window, to select the folder.
4. Click **Browse**. It displays an open Dialog box, to select the directory.
5. Click **Next**. It navigates the user to data entry grid window.

5.5 Import Saved Grid Data

This section describes on how to import saved grid data into a Data grid window. The steps involved are:

1. Select the option **Import Saved Grid Data** under **Data Capture** tab. It prompts the user to the next window.
2. Click **Next** to Select the Reporting **format**. (Account/Transaction based reporting format).
3. Click Next. It navigates the user to file location window, to import the saved grid data.
4. Click Browse. It displays a new open dialog box, to select the location and file.
5. Select the saved grid data and click **OK**.
6. Click Next. It navigates the user to a new data entry grid window, the user to view/edit the data.

5.6 Frequently Asked Questions (FAQs)

5.6.1 How to capture data?

Data can be captured in any of the following five methods:

- Data entry in Blank XML Report
- Data entry in Text files Version 2.0
- Import XML Report
- Import Text files Version 2.0
- Import Saved Grid Data

For more details, please refer section 5.1 to 5.5.

5.6.2 How can data be entered in the utility?

Data can be entered in two ways, blank XML report format and grid format. Data entry in grid format is easier to work as it provides various data management functions, such as paste data, merge reports etc. For more details, refer section 5.1 and 5.2.

5.6.3 How to import and/or edit text files into grid - version 2.0?

User can paste the data from fixed width text file, using Import Text files version2.0 method. For the data management functions refer section 5.1 and 5.2.

5.6.4 Can data entered in the grid be saved before the report is complete?

Yes. Save the data using **Save** button in the data grid window. The data is saved with a .ser file extension. To retrieve the data in the grid again, use the 'Import Saved Grid Data' function in 'Data Capture' window.

5.6.5 How to load an existing XML file?

Select a saved XML file using the option **Import XML report** under the Data Capture tab to load an existing XML file. For more details, refer section 5.3.

5.6.6 What is a batch?

Batch is an element in the XML schema which has a set of reports associated with it.

5.6.7 How is a batch identified?

The batch is identified by a unique 8 digit batch number assigned by the reporting entity at the time of upload.

5.6.8 How should a batch with large number of reports be handled?

The user has the facility to set the maximum number of reports in a batch in the Settings module of the utility. When the data captured reaches maximum number of reports, the utility creates multiple batches, with each having the specified Number of reports.

5.6.9 How can multiple batches be linked to the batch number specified in data?

Multiple batches can be linked to the batch number as each batch would be X(8)_n where X(8) is the original batch number and 'n' the sequence number of the multiple batch.

5.6.10 How to merge multiple report files into one file?

The utility provides the facility to consolidate multiple files into one, through the merge grid data option. For more details refer section 5.2.2.

5.6.11 How to merge multiple XML files into one file?

The utility provides the facility to consolidate XML multiple files into one, through the Merge Report option. For more details refer section 5.1.4.

5.6.12 Whether any validations are required before generation of XML?

Key validations have to be performed before generating an XML file. The key validations checks for primary and foreign key in the data. XML file would be generated only on successful key validation. Structural validations are an optional step. However, it is recommended to perform structural validations and rectify errors before generating the XML file to ensure that the generated XML passes the XML Schema validation (XSV).

5.6.13 How to identify key validation errors?

In the key validation process, the utility prompts user to select the directory for saving the error file. If key validation fails, open the error file with any text editor. The error file provides details of the error like the data file, line number of the record, the data element and the error description.

5.6.14 How to rectify key validation errors?

Violation of validation rule results in primary and foreign key errors. To rectify these errors the validation rules needs to be addressed. For example, if the Primary key error message is *branch reference number should be unique in branch data file*, then the branch data file needs to be checked for a reference number that is null or not unique. For other validation rules refer to Reporting Format Guide.

5.6.15 Is the structural validation option available only after key validation is successful?

Yes. The structural validation option will be available only after the key validation is performed successfully without errors.

5.6.16 How to identify structural validation errors of text files version 1.0?

In the structural validation process, the utility prompts user to select the directory for saving the error file. If structural validation fails, open the error file with any text editor. The error file provides details of the error like the data file, line number of the record, the data element and the error description.

5.6.17 How to identify structural validation errors of text files version 2.0?

If the utility displays a message about errors in structural validation, double click on the **Error Description** bar. Refer section 5.2.3 for details.

5.6.18 How to rectify structural validation errors of text files version 1.0?

Use the error file generated by the utility to identify the errors. Rectify the errors by editing the input fixed width text files or by correcting data in the source systems.

5.6.19 How to rectify structural validation errors of text files version 2.0?

Double click on the **Error Description** bar. The errors are listed in the window. Click on the error description to navigate to the error location. Refer section 5.2.3 for details.

6 XML Generation

XML report file can be generated from three sources .i.e. Loaded Data, External Text File Version 1.0 or External Text File Version 2.0

6.1 XML Generation from Loaded Data

The utility can generate XML file from data loaded in the utility. Refer section 5.2.4 for details of XML generation from loaded data. The user can also select this option manually.

Caution: XML Generation from loaded data without structural and key validations can lead to errors during XML generation.

6.2 XML Generation from External Text file Version 1.0

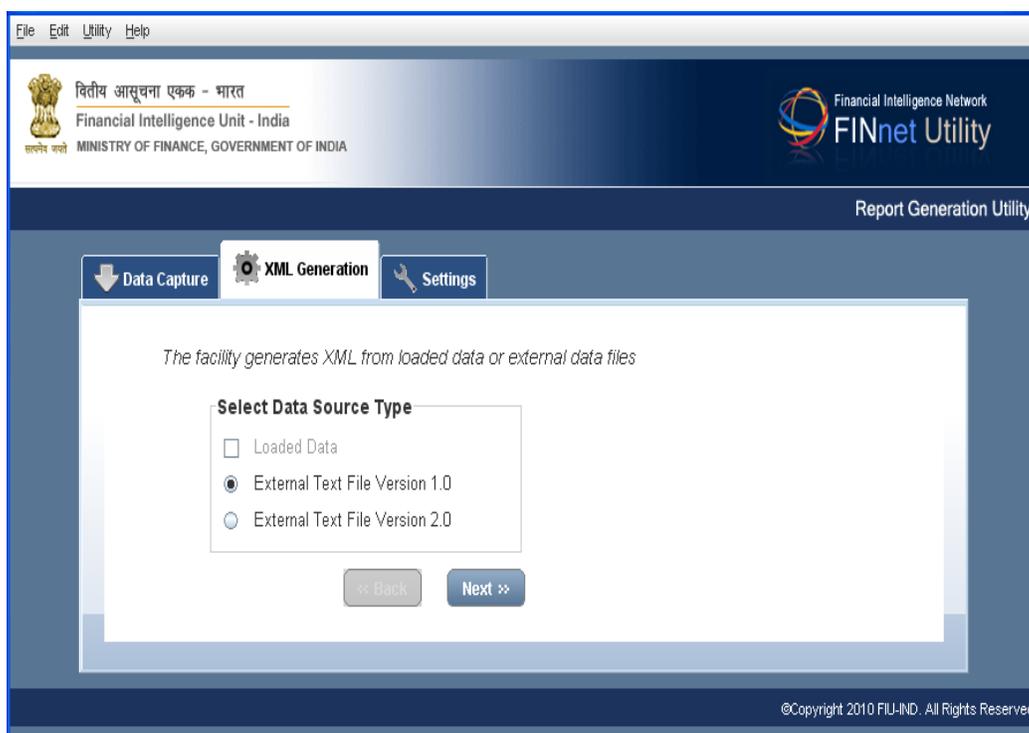
Since 2006, the prescribed reporting formats were called text files data structure version 1.0. The reporting entities were expected to submit report data in six text files. The report generation utility allows generation of XML report file from such text files.

6.2.1 Selecting External Text Files

The reporting formats of version 1.0 can be selected and converted to XML using the utility. Following stepwise procedure helps the user to generate XML file from External text file in Version 1.0:

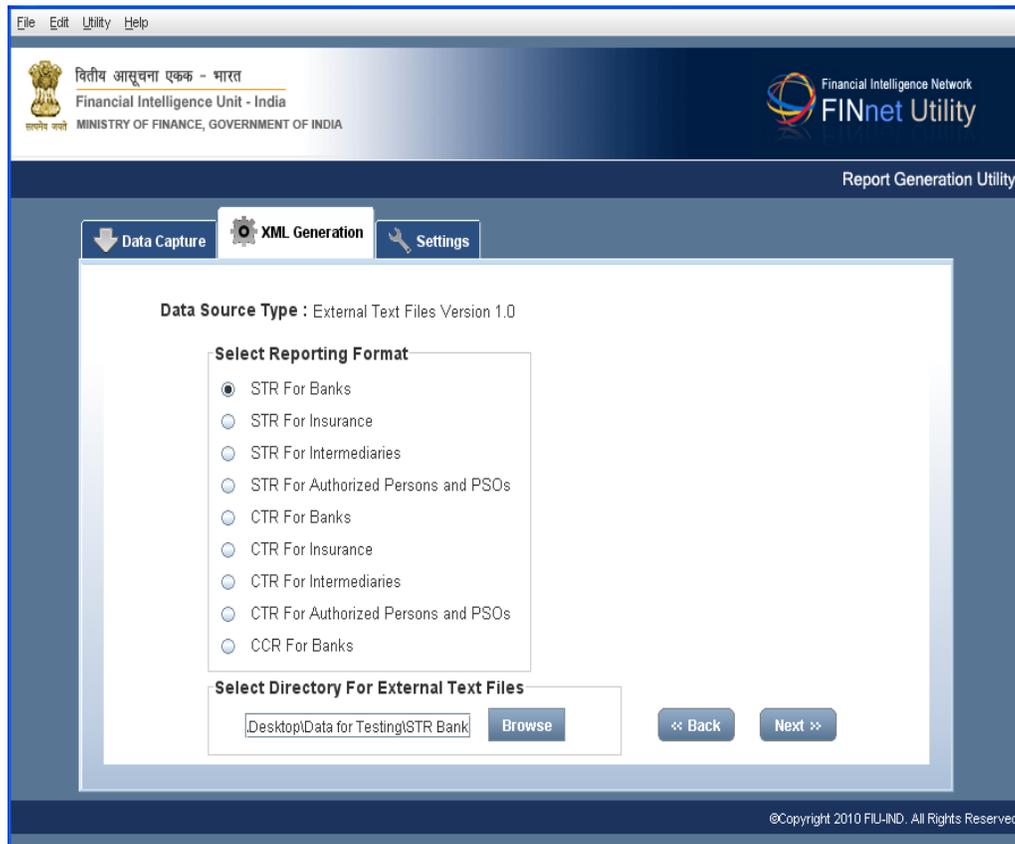
1. Select the option **External Text File Version 1.0** as the data source in the first screen of XML Generation.

Figure 12: XML Generation - Data Source types



2. Click **Next**. It navigates the user to a new utility window, to Select the **Reporting Format**, and directory for opening external text files.

Figure 13: XML Generation – Reporting Formats



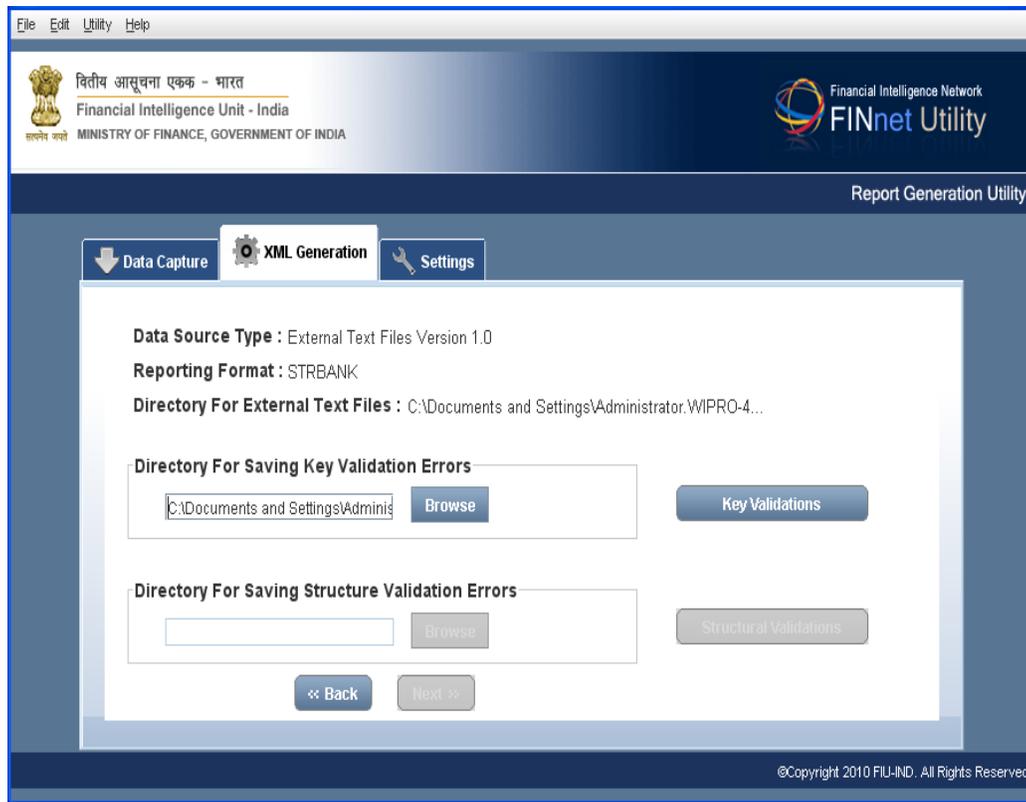
3. Click **Browse**. It displays a new **Open** dialog box, to select the data file(s) folder.
4. Select the text files directory and Click **Next** for Key Validations and Structural Validations.

6.2.2 Performing Key Validations

Key validation refers to 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. The steps involved are:

1. Click **Browse**. It displays an open dialog box, to select the folder and saving key validation error message file.

Figure 14: XML Generation - Key Validations



3. Click **Key Validations**. It validates the data. Upon validating the data, the utility displays the message *Key Validation Check Completed Successfully*. Alternately, the utility displays the error message *Key Validation Completed with Error* which requires manual intervention.

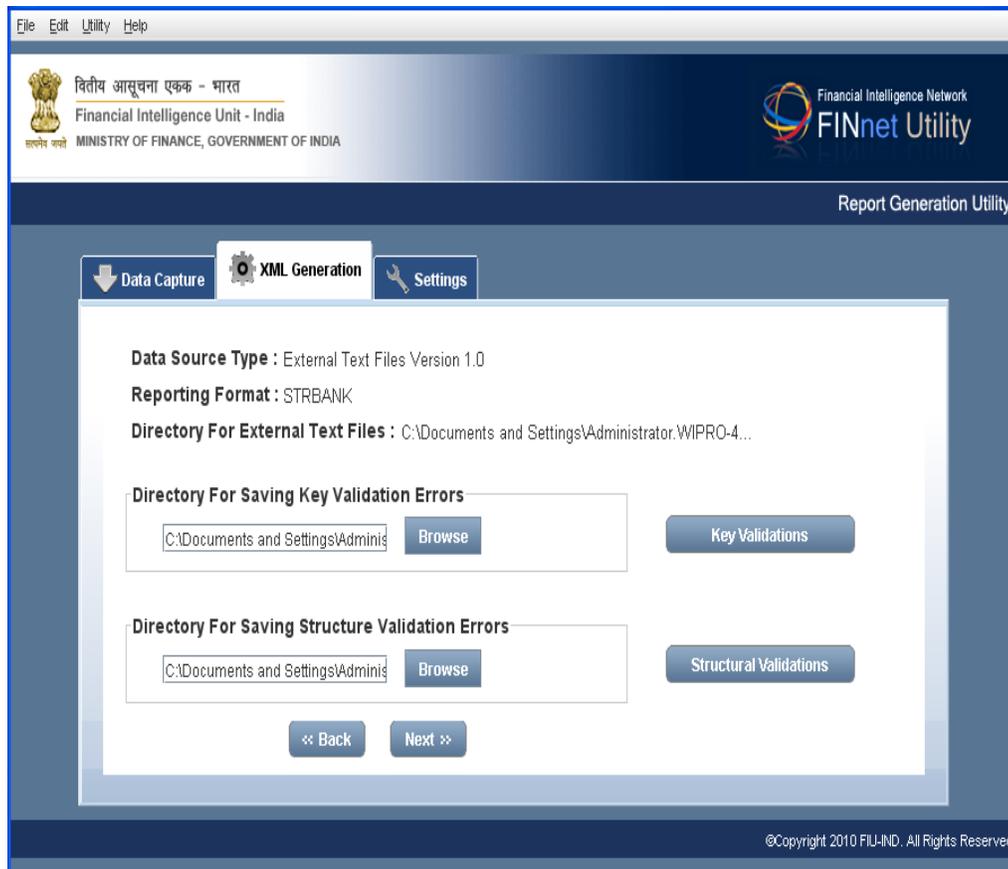
Note: To rectify Key Validation errors, open the Error Message file. It displays the list of errors, with description. Rectify the errors in the source file and re-start the process. Upon successful validation, the utility activates Structural Validation button.

6.2.3 Performing Structural Validations

Structural Validation checks for mandatory and numeric fields in the report. If the report contains such errors, it would be rejected at the schema level validation. The steps involved are:

1. Click **Browse**. It displays a new **Open** dialog box, to select the folder to save the structural validation error message file.

Figure 15: XML Generation - Structural Validations



2. Click **Structural Validations**. It validates the data. After validating the data the utility displays the message *Structure Validation Completed Successfully*. Alternatively, the utility displays the message *Structure Validation completed with Errors* which requires manual intervention.

Note: To rectify Structure Validation errors, open Error Message file. It displays the list of errors, with description. Rectify the errors in the source file and re-start process.

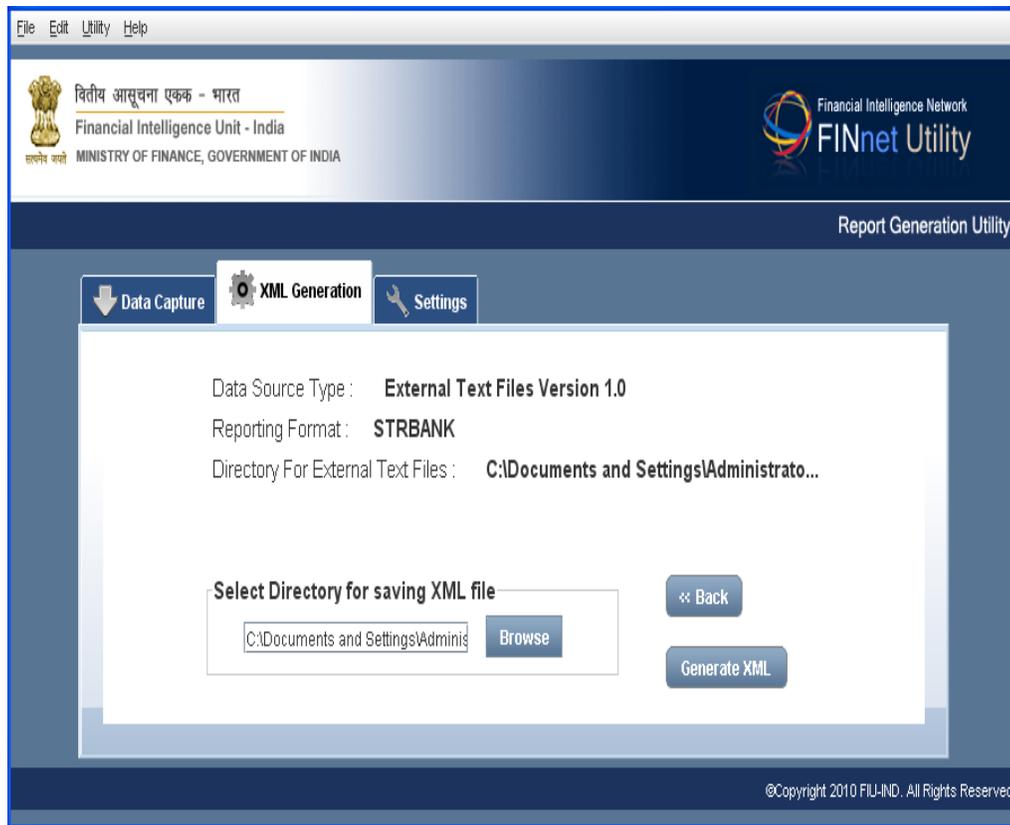
3. Click **Next**. It navigates the user to a new utility window, to select directory to save/generate the XML file.

6.2.4 Generation of XML file

After key and structural validations, the XML file can be generated as under:

- 1 Click **Browse**. It displays a new **Open** dialog box, to select the folder to save the XML file.

Figure 16: XML Generation - Generate XML



2. Click **Generate XML**. It displays the message *XML Generated Successfully*. It generates the XML file and save it to the selected location.

6.3 XML Generation for External Text Files Version 2.0

The existing fixed width text file format (version 1.0) has been upgraded to version 2.0 to ensure compatibility with the XML format specifications. External Text files Version 2.0 helps the reporting entity to submit reports to FIU-IND which is compliant with the XML format specifications. The fixed width text file format specifications assist the extraction of data from the information system of reporting entity before preparation of XML reports. The RGU allows generation of XML report file from such text files.

6.3.1 Selecting External Text Files

The user can select the External text file in Version 2.0 as follows:

1. Select the option **External Text File Version 2.0** as the data source in the first screen of XML Generation. (Refer Figure 12: XML Generation - Data Source type).
2. Click **Next** to select the reporting format and directory for external text files.

Figure 17: Reporting Format - External Text Files (Version 2.0)

The screenshot shows the 'Report Generation Utility' window. At the top, there is a header with the FIU-IND logo and 'Financial Intelligence Unit - India, MINISTRY OF FINANCE, GOVERNMENT OF INDIA'. The 'XML Generation' tab is active. The 'Data source type' is 'External Text Files Version 2.0'. There are three main sections: 'Select Reporting Format' with radio buttons for 'Account Based' (selected), 'Transaction Based', and 'CCR Based'; 'Select Report Type' with radio buttons for 'Cash Transaction Report', 'Suspicion Transaction Report' (selected), and 'NPO Transaction Report'; and 'Select Directory For External Text Files' with a 'Browse' button and a 'Next' button. A 'Back' button is also present.

3. From **Select Reporting Format**, click the Reporting format.
4. Select the Report type if Account Based or Transaction Based reporting format is selected.
5. Click Directory for External Text files **Browse**. It displays a new dialog box to select the folder.
6. Click **Next**. It navigates the user to a new utility window, to select directory for saving Key and Structural Validations Error Messages.

6.4 Frequently Asked Questions (FAQs)

6.4.1 How to generate XML file by Data Entry?

Select Data entry in text files version 2.0 under Data Capture tab to enter data in a grid based form. Refer to section 5.2 for generation of XML from loaded data.

6.4.2 How to generate XML file from text file version 1.0?

XML Generation tab allows the user to generate XML file from external text files version 1.0. Refer to section 6.2 for more details.

6.4.3 How to generate XML file from text file version 2.0?

XML Generation tab allows the user to generate XML file from external text files version 2.0. Refer to section 6.3 for more details.

6.4.4 Can XML files be generated if there are key validation errors?

No. XML files can be generated only if the key validation is performed successfully without errors.

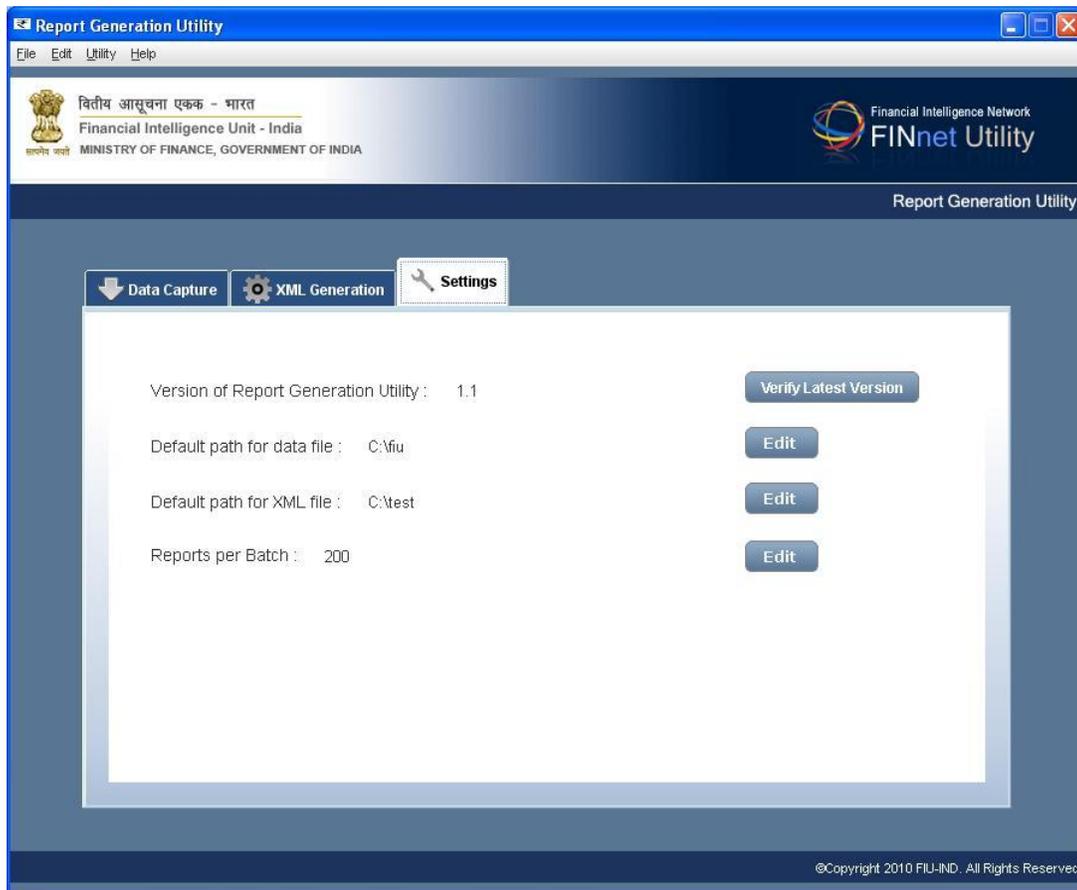
6.4.5 Can XML files be generated if there are structural validation errors?

Yes. XML files can be generated even if there are structural validation errors.

7 Settings

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

Figure 18: Settings



7.1 Generation Utility Version details

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

7.2 Default path for data file

The Data file folder is where the user stores the input data files. By default, the target or actual location of the Data file is **C:\Documents and Settings\user name\data file**. If the user wants the default path to point to a different folder location, then the user can change the target folder. Following procedure describes steps in changing the default path of the data file.

1. Click **Settings** tab. It displays Default path for data file.
2. Click **Edit** to set the **Default path for data file**. It displays a new **Open** dialog box, to select location to save the data files.
3. Select folder to save the data files and click **Open**. It saves and updates the location.

7.3 Default path for XML file

The XML file folder is the user's XML folder in which the user stores the output XML files. By default, the target or actual location of the Data file is **C:\Documents and Settings\user name\XML file**. If the user wants the default path to point to a different folder location, then the user can change the target folder. Following procedure describes steps in changing the default path of the Data file.

1. Click **Settings** tab. It displays Default path for data file and others.
2. Click **Edit** to set the **Default path for XML file**. It displays a new Open dialog box, to select the location to save the XML files.

7.4 Maximum number of reports in a batch

If the number of reports exceeds a configurable number, the reports would be created in multiple XML batches. This tab enables the user to set the maximum number of reports per batch. When the number of reports in the input data exceeds the maximum number of reports, the utility creates multiple batches. Each batch can be linked to the original batch number as the batch number in each multiple batch would be X(8)_n where X(8) is the original batch number and 'n' is the sequence number of multiple batch.

7.5 Frequently Asked Questions (FAQs)

7.5.1 How to check the current and latest Report Generation Utility version?

Settings tab in RGU allows the user to verify the current and latest utility version. For more details refer Section 7.1.

7.5.2 How to set the default path for data file?

Settings tab in RGU allows the user to view/edit the default data file path. For more details refer Section 7.2.

7.5.3 How to set the default path for XML file?

Settings tab in RGU allows the user to view/edit the default XML file path. For more details refer Section 7.3.

7.5.4 How to set the maximum number of reports in the batch?

Settings tab in RGU allows the user to set the maximum number of reports in the batch. For more details refer Section 7.4.

8 Troubleshooting the Utility

Trouble	Probable Causes	Solution
Unable to download the RGU	Slow/No Internet connectivity.	Check 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 RGU.bat file	No Java Software installed.	Report Generation Utility requires JDK version 1.6 or later. For more details refer Section 4.
	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 Troubleshooting Error messages

Area	Error Message	Solutions
Data Capture	Problem in reading report file	Report file should be a valid file.
XML generation from external text files	Please create valid data account for account file	The length of data in the file should be as specified in version 1 or version 2.
XML generation from external text files	Please create valid data for payment Instrument file	The length of data in the file should be as specified in version 1 or version 2.
Data Entry and Import of grid data/ text files	Key Validation check completed with errors	Rectify the Primary, foreign key and Line sequence number errors.
Data Entry and Import of grid data/ text files	Structural Validation check completed with errors	Rectify the mandatory and data type errors.
Import of text files/saved grid data	Batch File doesn't exist	Batch file with valid filename, extension and record length should be present in the directory.
Import of text files/saved grid data	Branch File doesn't exist	Branch file with valid filename, extension and record length should be present in the directory.
Import of text files/saved grid data	Account File doesn't exist	Account file with valid filename, extension and record length should be present in the directory.
Import of text files/saved grid data	Transaction File doesn't exist	Transaction file with valid filename, extension and record length should be present in the directory.
Import of text files/saved grid data	INP File doesn't exist	INP file with valid filename, extension and record length should be present in the directory.
Import of text files/saved grid data	LPE File doesn't exist	LPE file with valid filename, extension and record length should be present in the directory.
Import of text files/saved grid data	Control File doesn't not exist	Control file with valid filename, extension and record length should be present in the directory.
Data Entry and Import of grid data/ text files	Report serial number of report node should be numeric	Report serial number should be numeric.

Area	Error Message	Solutions
Data entry/Import of XML file	Leaf cannot be deleted	Do not delete a leaf element.
Data Entry and Import of grid data/ text files	Please select directory for saving primary key errors	Create a directory for storing Primary key errors.
Data Entry and Import of grid data/ text files	Please select directory for saving structural errors	Create a directory for storing Structural errors.
Generation of XML from loaded grid data or external text files	XML file cannot be created	For a XML file to be created rectify primary and foreign key errors.

10 Glossary

Data Quality Report (DQR)	Data Quality Report is a XML file, which contains information about data elements. 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 validates primary key (identifies each record uniquely in the table) and foreign key (points to the primary key in another table).
PMLA	Prevention of Money Laundering Act (2002).
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 reporting entities.
Principal Officer	Principal Officer means an officer designated by a banking company, financial institution and intermediary, as the case may be. (2(1) (f) of Rules).
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).
Structural Validation	Structural validation checks the data type and mandatory fields.
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

Reporting Format Guide

User Guides

- Report Validation Utility User Guide
- FINnet Gateway Portal 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