

**Community Reception Center
Electronic Data Collection Tool (CRC eTool)
Data Manager Guide**

Version 1.0
September 2018

Version History

| Version # | Implemented By | Revision Date | Comments |
|-----------|----------------|---------------|-----------------------------|
| 1.0 | David Nitschke | 08/17/2018 | Version 1.0 of the document |
| | | | |
| | | | |
| | | | |
| | | | |

Table Of Contents

| | |
|-------------------------------------------------------------------------|-----------|
| 1 Introduction | 4 |
| Purpose | 4 |
| Audience..... | 4 |
| System Operations | 4 |
| 2 Using the CRC eTool to Collect Data | 4 |
| User name and Password Slips..... | 4 |
| Ensure a connection to the network..... | 5 |
| Logging into the system | 5 |
| Resetting the User Names and Passwords using the Password Utility | 5 |
| Using Epi Info™ to perform analysis (Visual Dashboard) | 7 |
| Using Epi Info™ to access data | 11 |
| Aggregating data from multiple CRCs..... | 11 |
| 3 Appendix A: References..... | 13 |

1 Introduction

Purpose

In a radiation emergency, the Community Reception Center Electronic Data Collection Tool (CRC eTool) allows authorized data collectors at community reception centers (CRCs) to enter data securely. This document instructs the CRC data manager how to perform the operations related to using the system, merging and exporting data from one or more CRCs, and configuring the Visual Dashboard to reflect changing analytical needs.

Audience

The audience for this document includes the CRC data manager, CRC epidemiologist, and CRC administrator. This guide is applicable only after the steps in the CRC eTool Deployment Guide have been completed and the system is operational and running.

System Operations

The system will be used for

- collecting data using CRC eTool,
- managing the collected data using CRC eTool, and
- accessing the collected data for a SQL Server form directly in Epi Info™ for additional data management tasks or analysis using Visual Dashboard.

2 Using the CRC eTool to Collect Data

User name and Password Slips

The CRC eTool is preconfigured with user names and passwords. These are located in the Documents folder in a file named Attachment.docx. The User Name and Passwords are printed with "cut along dotted line" marks in order to cut the pages into slips to be distributed to each station or to individual staff members responsible for collecting data.

Before distributing the password slips, you should update the placeholders in the document with the actual values. The placeholders for {wifi_name}, {wifi_password}, and {ip_address} can be "search-and-replaced" with the corresponding name, password and IP address for your system which should become known during the deployment process. If the individual or team who set up the CRC eTool is available, please check with them for the actual values. Otherwise, consult the CRC eTool Deployment Guide, if those individuals are not available.

Ensure a connection to the network

If the network being used is a wireless (Wi-Fi) network, then ensure the machine is connected to the Wi-Fi network. The Internet is not used by the system, so Internet access over the network is not necessary.

- Click Settings under the Start button.
- Click Network & Internet.
- In the list on the left, click Wi-Fi. Ensure that Wi-Fi is On.
- Click Show available networks.
- Click the network name shown on the password slip, and choose Connect.

If the network is connected by cables, rather than over a Wi-Fi router, then ensure the machine is properly cabled to the network.

Logging into the system

Staff members at a station should check that the laptop or computer is turned on and connected to the network.

Open the browser on the computer. Note that there may not be available Internet access, but this should not be a problem for the system as long as you are connected to the network.

In the address bar of the browser, enter the CRC System URL as shown on the password slip. If the password slip shows { `ip_address` }, then in this space enter the IP address of the CRC web server as provided during the deployment process.

The CRC eTool login page should be shown in the browser.

Enter the User Name and Password as shown on the password slip.

If successful, then you should see the main record list.

Resetting the User Names and Passwords using the Password Utility

If needed, the CRC eTool includes a password utility that can be used to change the preconfigured user names and passwords. To use the utility, the database server must be running, and your computer must be connected to the network.

Locate and run the Password Reset Utility.

Password Lookup

In the User Name and Password boxes, enter Admin@crc.gov for the User Name and the current password associated with this account.

To look up a current password, enter the User Name needed.

Click Lookup Password to see the current password set for the given user.

Add New User

To create a new user, enter a new email address into the User Name box. Note that User Names are in the form of an email address, but unless an SMTP service is deployed, there is no email feature available with the system.

Click Add New User to generate a new password for the user.

Change Single Password

To change only one password, enter the User Name that should be updated.

Click "Change Password". A random string of upper and lower case letters, numbers, and symbols is used to generate the new password.

Click the "Copy" button to copy the new password to the clip board.

You may update the Password document with the new password or otherwise print it for logging into the system.

Change All Passwords

To change all passwords preconfigured in the system, specify the number of passwords to make.

Click "Generate Passwords". This produces a new set of User Names and Password combinations.

Disable User Account

To deactivate a user and disable the password, enter the User Name in user name box on the form. Click "Disable" to deactivate the user and prevent the password from being used again.

Visual Dashboard Setup: Using Epi Info™ to perform analysis

Epi Info™ Visual Dashboard can be used to analyze the collected data on the server machine. To work with Epi Info™, copy the **Epi_Info_7** package provided in the **EpilInfoCRC/EpilInfo** folder to the desktop or **C:** drive on the server machine.

If the connection string test was successful for the web application without needing to update the connecting string during deployment, you should be able to open the Visual Dashboard module and open the packaged dashboard for data analysis.

If the connection string test was not successful or the connection string was changed, you will need to create an updated connection string for the EpilInfoCRC project. To update the connection string, follow the guidance provided in Make-A-Project-File-508.pdf referenced in Appendix A: References.

- Keep the name of the project file the same as the existing file (EpilInfoCRC.prj), and save the file to the EpilInfoCRC project located at Epi_Info_7\Epi Info 7\Projects\EpilInfoCRC.
- After updating the connection string, navigate to the **Epi_Info_7\Epi Info 7\Projects\EpilInfoCRC** folder and open the **EpilInfoCRC.prj** file in the text editor of your choice. Also open the **CRCReport.csv7** file in the text editor.
- Copy the value of **connectionString** from the **EpilInfoCRC.prj** file and use it to replace the value between the **<connectionString>** and **</connectionString>** tags in the **CRCReport.csv7** file.

With the correct connection string in place, you can launch the Visual Dashboard module of Epi Info™ 7 to see the preconfigured dashboard.

1. Launch Epi Info™ by clicking on **Launch Epi Info 7.exe** found under **Epi_Info_7** folder.
2. Click **Visual Dashboard** from Epi Info™ 7 main menu to launch the module.
3. Click the **Open** icon (fourth icon in the header).
4. Click **Browse**. In the Open file dialog, navigate to the location where Epi Info™ 7 was copied. Drill down to the Epi Info 7\Projects\EpilInfoCRC folder.
5. Select **CRCReport.csv7** and click **Open** to open the preconfigured dashboard.

The preconfigured dashboard has been created using pre-identified fields. Below is the list of fields available for analysis and used in creating the dashboard:

CRCForms:

A04d_Age: Table with bars

A04d_Year_Month: Bar graph

A11a_High_Contam: Pie chart

Section BRadiationContaminationScreeningStation

B05_Contamination_result: Pie chart

Section DFirstAidStation

D06_FA_Open_Wound_Contam: Frequency (Table with bars)

D07_FA_Burn_Contam: Frequency (Table with bars)

Section ERegistration

E07_Registrant_Sex: pie chart

E08_Registrant_Pregnant: Bar graph

E16_Registrant_In_Area: Pie chart

E22_Symptom_Fever: Bar graph

Section FRadiationDoseAssessment

F02_Risk: Bar graphs

Section GDischarge

G01a_Post_CRC: Bar graph

If you have different analysis needs, a new dashboard can be created using one of the following techniques:

1. **Modify the existing view (Recommended):** The package provides a preconfigured dashboard that is created using a custom view in the **EpiInfoCRC** database called **vw_CRCReport**. This view pulls in fields from all of the Epi Info™ related forms provided in the package. The view can be customized if there is a need to add additional fields. Follow the steps below to customize the view:
 - a. Connect to the EpiInfoCRC database server using the SQL Server Management Studio provided in the installation package. The value for Server name, Database name, Login and Password are provided below if the connection string was not changed:

Server name: (local)\SQLEXPRESS
Database name: EpiInfoCRC
Authentication: Use SQL Server Authentication
Login: eiweb_appuser
Password: h74\$H4d@m23
 - b. Navigate to the Views folder in the EpiInfoCRC database and open vw_CRCReport in design mode.

- c. Add additional fields by choosing the desired fields from any of the available tables in the diagram pane.
 - d. Save the changes once the design changes are final.
 - e. Launch Epi Info™ Visual Dashboard.
 - f. You can open the dashboard provided and expand the dashboard using the newly added fields OR to create a new dashboard perform the next set of steps.
 - g. Start by setting up a new data source—click the Set Data Source icon (third icon from the left).
 - h. Choose Microsoft SQL Server Database as the database type.
 - i. Open a connection to the **EpiInfoCRC** database on the database server using information provided in Step (a).
 - j. Choose the **vw_CRCReport** view in the Data Source Explorer and click OK.
 - k. The empty dashboard canvas is now ready for analysis using the fields made available through the custom view.
 - l. Right-click the canvas and select **Add Analysis Gadget** to add a gadget to the canvas.
 - m. Save the dashboard canvas to preserve your work.
2. **Related data source:** A new dashboard can be created using a related data source to analyze data for one of the station specific forms.
- a. Launch Epi Info™ Visual Dashboard.
 - b. Start by setting up a new data source—click the Set Data Source icon (third icon from the left).
 - c. Choose Epi Info™ 7 Project as the 'Database Type'.
 - d. Navigate to the EpiInfoCRC project in the 'Data Source'.
 - e. Choose CRC_Forms.
 - f. Right click in the empty canvas and click on 'Add related data source'
 - g. Choose the the station specific form from in 'Data Source Explorer' under 'Select Data Source'.
 - h. Choose GlobalRecordId field for 'Parent Key Field'.
 - i. Choose FKEY for 'Child Key Field' and click OK.
 - j. Fields from both Parent 'CRC_Form' and the station specific form will be available for analysis.
 - k. Right-click the canvas and select **Add Analysis Gadget** to add a gadget to the canvas. The list of variables in the gadget properties will include the fields from both forms.

- i. Save the newly created dashboard canvas to preserve your work.

3. **SQL Queries in Advanced mode:** SQL queries can be created in Epi Info™ Visual Dashboard to perform analysis. Only SELECT queries are permitted.
 - a. Launch Epi Info™ Visual Dashboard.
 - b. Start by setting up a new data source—click the Set Data Source icon (third icon from the left).
 - c. Choose Microsoft SQL Server Database as the database type.
 - d. Open a connection to EpiInfoCRC database on the database server. The value for Server name, Database name, Login and Password are provided below if the connection string was not changed:

Server name: (local)\SQLEXPRESS

Database name: EpiInfoCRC

Authentication: Use SQL Server Authentication

Login: eiweb_appuser

Password: h74\$H4d@m23
 - e. Click on the Advanced button.
 - f. In the Set Data Source dialog provide the SELECT query that you want to use for analysis and click OK.
 - g. The empty dashboard canvas is now ready for analysis using the fields chosen in the SELECT query.
 - h. Save the newly created dashboard canvas to preserve your work.

4. **Create a custom view:** Custom views can be created directly in the EpiInfoCRC database to meet any custom analysis needs.
 - a. Connect to the EpiInfoCRC database server using the SQL Server Management Studio provided in the installation package. The value for Server name, Database name, Login and Password are provided below if the connection string was not changed:

Server name: (local)\SQLEXPRESS

Database name: EpiInfoCRC

Authentication: Use SQL Server Authentication

Login: eiweb_appuser

Password: h74\$H4d@m23
 - b. Create a new view that will have all your fields and any computed variables and save the view by providing a name that is meaningful.
 - c. Launch Epi Info™ Visual Dashboard.

- d. Start by setting up a new data source—click the Set Data Source icon (third icon from the left).
- e. Choose Microsoft SQL Server Database as the database type.
- f. Open a connection to the EpiInfoCRC database on the database server using the information provided in Step (a).
- g. Choose the newly created view in Data Source Explorer and click OK.
- h. The empty dashboard canvas is now ready for analysis using the fields made available through the custom view.
- i. Right-click the canvas and select **Add Analysis Gadget** to add a gadget to the canvas. The list of variables in the gadget properties will include the fields from the new view.
- j. Save the newly created dashboard canvas to preserve your work.

Using Epi Info™ to access data

Perform data entry and data management tasks using the CRC eTool. The CRC eTool was configured using Epi Info™ 7. The form available for data entry through the web application was designed in the Epi Info™ 7 Form Designer module. The data collected using the web application is available for browsing in the Epi Info™ 7 Enter module if you want to see the data using a desktop tool. You do not need to open the Enter module for performing any data entry.

Aggregating data from multiple CRCs

When several CRC centers are collecting data using the CRC eTool, you may want to consolidate the data from the different centers into a single central database or command center for analysis. This can be done with the Epi Info™ Data Packager and Data Unpackager. The document **EpiInfo7UserGuide-Chapter7-DataPackager.pdf** has detailed step by step instructions for using the Data Packager and Data Unpackager.

The general process is as follows:

1. The data collection CRC runs the Epi Info™ Data Packager to create a data package. The resulting data package is an encrypted file with an **.edp7** filename extension.
2. The data collection CRC sends the **.edp7** data package to the data manager of the central database or command center CRC.
3. The data manager of the command center CRC receives the **.edp7** data package and saves the file to a computer on the central CRC eTool network.
4. The data manager of the command center CRC runs the Epi Info™ Data Unpackager to import the data into the central CRC eTool database.

Note: Some efficiencies may be gained when several **.edp7** files must be imported. In this case, you can do a batch import of multiple **.edp7** files simultaneously. Save all **.edp7** files into a single folder, and use this folder as the source location for the import. The Data Unpackager proceeds through each **.edp7** file contained in the folder and imports their data. If a password was used to protect the files when they were created, all **.edp7** files must have been created **using the same password** in order to take advantage of this batch import process.

3 Appendix A: References

The following table summarizes the documents referenced in this guide:

| Document Name | Purpose | Location |
|---------------------------------------------|----------------------------------------------------------------------------------------------|-----------------------|
| Make-A-Project-File-508.pdf | This document describes how a project file can be create for an Epi Info™ SQL Server project | /EpiInfoCRC/Documents |
| Attachment.docx | This document contains information critical to using the system | /EpiInfoCRC/Documents |
| EpiInfo7UserGuide-Chapter7-DataPackager.pdf | This document is from the Epi Info™ 7 User Guide and explains the Data Packager tool. | /EpiInfoCRC/Documents |

Epi Info™ is a trademark of the Centers for Disease Control and Prevention (CDC), Department of Health and Human Services, United States Government.

Windows, Windows Server, and SQL Server are trademarks of Microsoft Corporation. Used with permission from Microsoft.

Community Reception Center Electronic Data Collection Tool (CRC eTool) is an independent product developed by CDC using Epi Info™ and is neither affiliated with, nor authorized, sponsored, or approved by Microsoft Corporation.

All other trademarks are the property of their respective owners.