Lesson 15 – Downloading Cards to EMRI-3 Boards

There are occasions when it may become necessary to re-load the cardholder database into the **EMRI-3 boards**. Some examples of when this might be necessary are:

- A **backup** (full system or data only) may have been restored to the **Entry-Master** panel,
- Cardholder data may have been imported into the **Entry-Master** panel, or
- An **EMRI-3 board** may have been replaced, due to damage.

All of these examples are very good reasons to download a fresh copy of the cardholder database to the **EMRI-3 boards**.

The process, though simple enough, varies greatly from customer to customer, depending upon how many cardholders are loaded into the system. An **EMRI-3 board** has capacity to hold up to **60,000** total cards in its memory. The total time it takes to upload the entire card database to a set of **EMRI-3 boards** is dependent on **three (3) factors**:

1. The total number of cards registered in the **Entry-Master** system
2. The total number of EMRI-3 boards are connected to the **Entry-Master** system
3. The transmission media used to propagate the card data (Ethernet or RS-485)

This lesson will show you how to perform a complete data upload of your card database to all **EMRI-3 boards** connected to the system.

To begin, you should be logged in and at the Entry-Master Main Menu. Choose **Option 2 –** *Enter Reports Menu* (see **Figure 2-15-1** below):
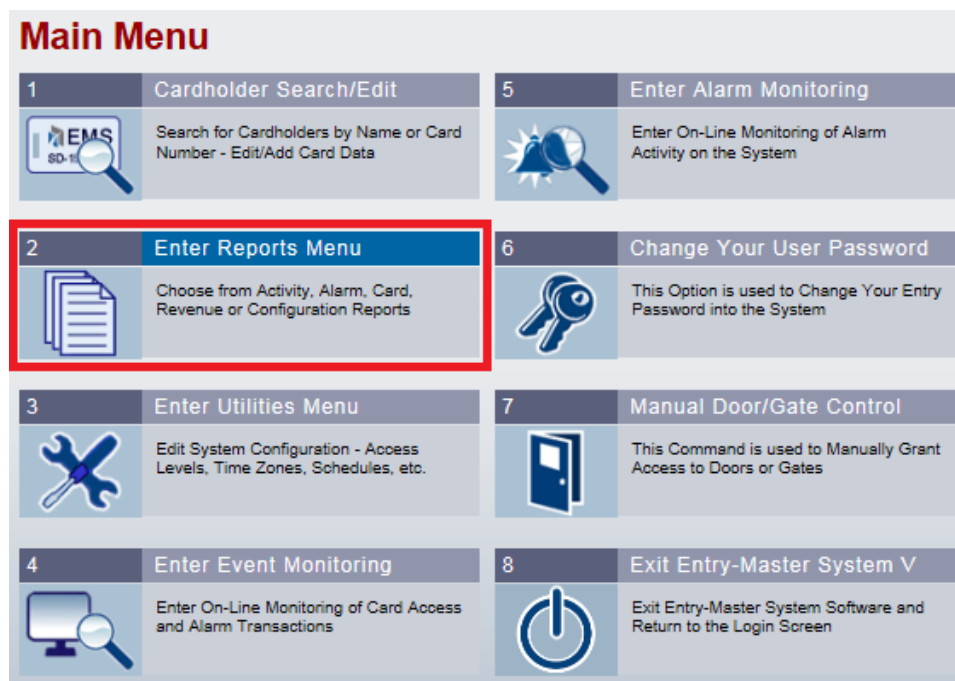

Figure 2-15-1. The Entry-Master Main Menu

The **Entry-Master** *Reports Menu* is now displayed (**Figure 2-15-2**):
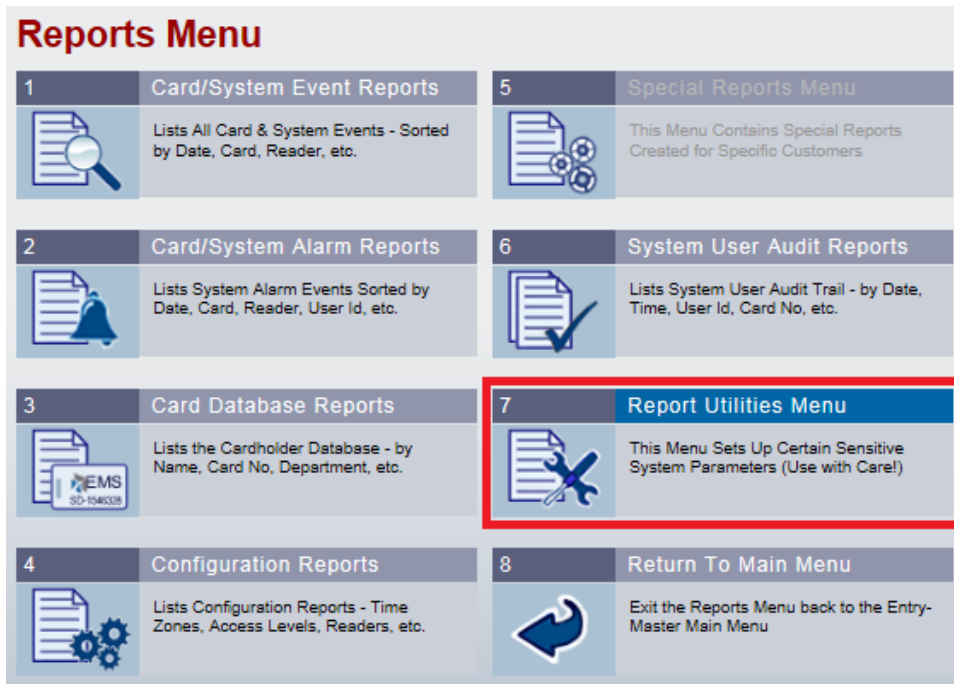

Figure 2-15-2. Selecting Report Utilities Menu from the Reports Menu

Selecting **Option 7 –** *Report Utilities Menu* displays the following (**Figure 2-15-3**):
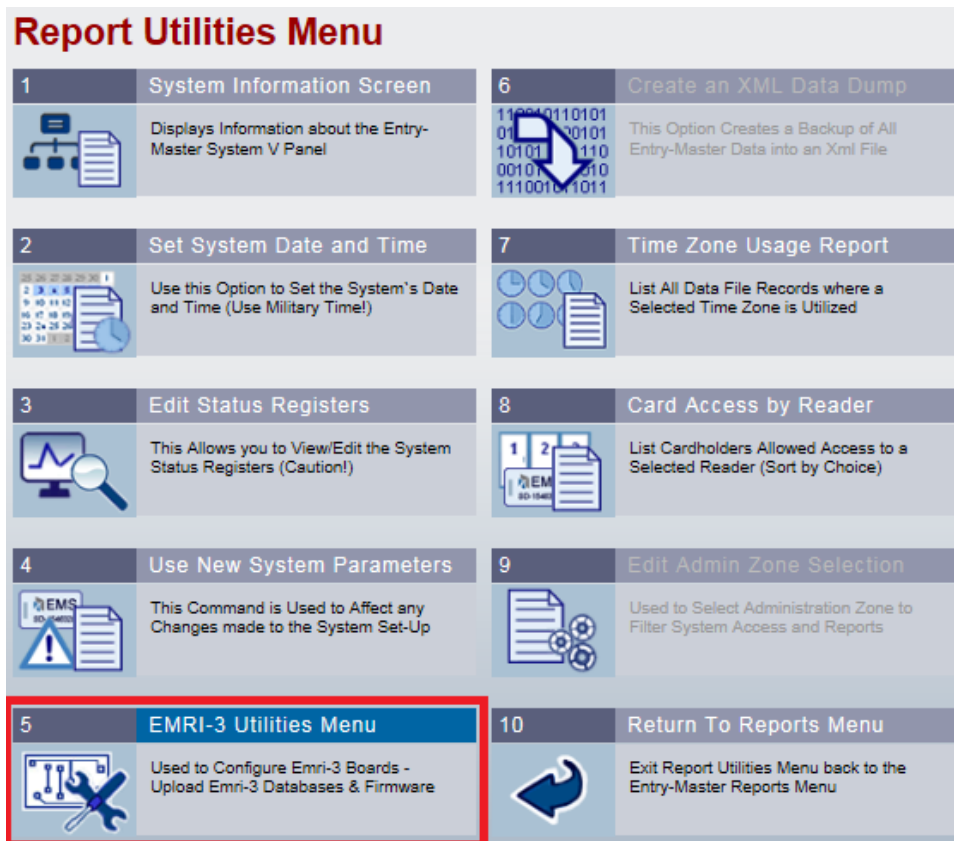

Figure 2-15-3. Selecting EMRI-3 Utilities Menu from Report Utilities Menu

Select **Option 5** – *EMRI-3 Utilities Menu* from the *Report Utilities Menu* (**Figure 2-15-3**); then, finally, selecting **Option 2** – *Upload Card Database to ALL EMRI-3 Boards* (see **Figure 2-15-4** below) begins the process, followed by a **confirmation pop-up** (**Figure 2-15-5**):
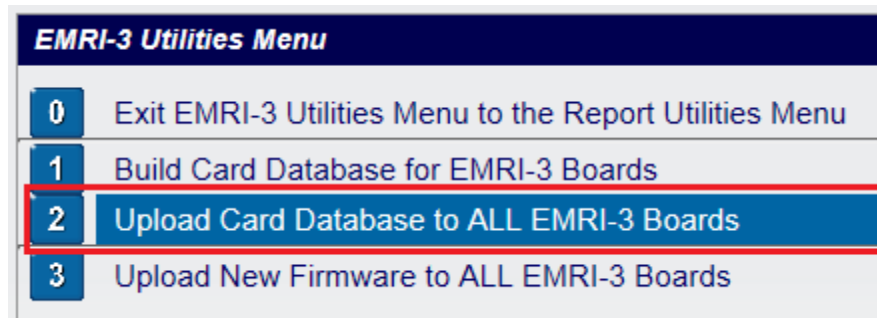

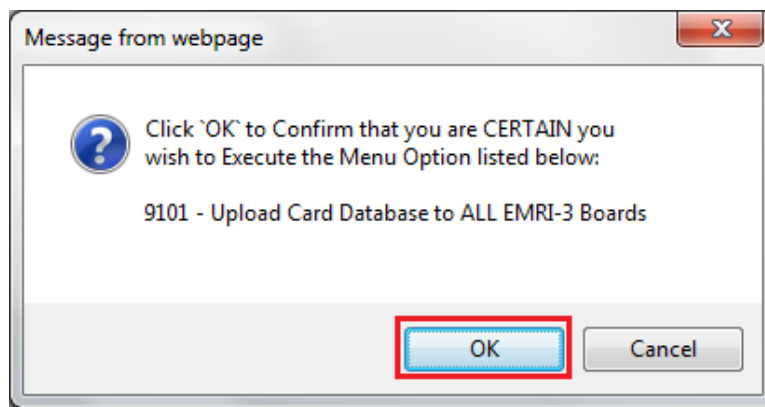**Figure 2-15-4. Selecting Upload Card Database to ALL EMRI-3 Boards**

Figure 2-15-5. Upload Card Database Confirmation Pop-up

Once the "**OK**" button on the confirmation pop-up is clicked (see **Figure 2-15-5** above), the process will begin (**Figure 2-15-6** below):
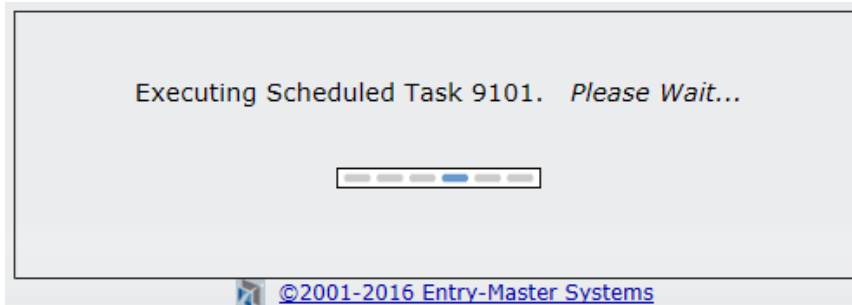

Figure 2-15-6. Starting the Card Database Upload

Once the process has started, it can be monitored on the **Event Monitoring Screen**. From the *Main Menu*, click **Option 4** – *Event Monitoring Screen*. At the bottom of the display, you should see something similar to the following screen (**Figure 2-15-7** below):

Figure 2-15-7. Card Database Upload Messages Displayed on the Monitoring Screen

Notice that the event message says "**Begin Download**" – that is because from the Entry-Master system's perspective, it is "*Downloading Data*" from its databases – from the **EMRI-3 board's** perspective, it is having "*data uploaded*" to it. This is true for all data transfers … the sending machine is **downloading data**, while the receiving machine is having **data uploaded** to it.

Once the "**download**" is completed, you will see the following display on the **Monitoring Screen** (see **Figure 2-15-8** below):

Figure 2-15-7. Card Download Successful Displayed on the Monitoring Screen

So, to provide some perspective on how long a **Card Data Download** takes, the example above in **Figure 2-15-7** was a download of **1,000 cards** to **nine (9) EMRI-3 boards** over a reasonably good **Ethernet** connection (a **Local Area Network**), and took **just under 11 minutes** to complete.

Some Important Notes

During a database download, card reads are slightly slower, because the **EMRI-3 boards** are in the process of having their data tables wiped clean and re-written. Response times of 1-2 seconds for an access granted transaction will take place; because the EMC-64 panel is making the access decisions in-lieu of the EMRI-3 boards.

Please be aware of this when deciding to perform a data download.

Also, **Option 1** – *Build Card Database for the EMRI-3 Boards* on the *EMRI-3 Utilities Menu* is active and functions, but is usually unnecessary, because the "Build" function is done once a day, as well as anytime the system is rebooted. Since normally, this function would be executed after **restoring a backup**, the system is **rebooted** as part of that procedure and the **data build** occurs after the backup files are restored.