SIEMENS

QUICK REFERENCE GUIDE
INSTALLING MASTER (MEF) AND
SLAVE (SEF) EXECUTIVE FILES IN
SSCC IIIA, III+ AND IV
Document No. SIG-QG-08-22-001B

SETUP PROCEDURE

Tools required:
- Laptop PC with CD drive and running latest version of Safetran's DT software.
- Standard RS-232 serial cable.
- Software Update disc (provided by Siemens).
- SSCC History Card

NOTE

The following procedures apply to all MEF and SEF executive software versions.

WARNING

DURING UPGRADE OF THE SSCC SOFTWARE, THE SSCC WILL NOT BE CONTROLLING THE CROSSING PROTECTION. ALTERNATE MEANS OF PROTECTING THE CROSSING (E.G., TRACK TIME, FLAGGING THE CROSSING, ETC.) MUST BE USED UNTIL THE UPDATE IS COMPLETE AND THE SSCC IS RETURNED TO NORMAL OPERATION.

1) Verify that power is applied to the SSCC.

2) **IMPORTANT! – Review the Program menu, Configure menu and lamp voltage settings and then compare the <u>current</u> system operating parameters with those recorded on the History Card retained with the SSCC. <u>If necessary, update the History Card to the current programmed settings</u>**.

3) Copy the contents of the Software Update disc to a folder on the PC hard drive (e.g., **C:\Siemens**).

4) Connect serial cable from PC COM port 1 to the SSCC front panel **DIAGNOSTIC** port.

5) With the SSCC already powered up, start the DT software.

6) If the DT software does not connect to the SSCC automatically, select the **COMM** button or **COMM** drop down menu, then select **DT Port Setup**. Otherwise, go to step 10.
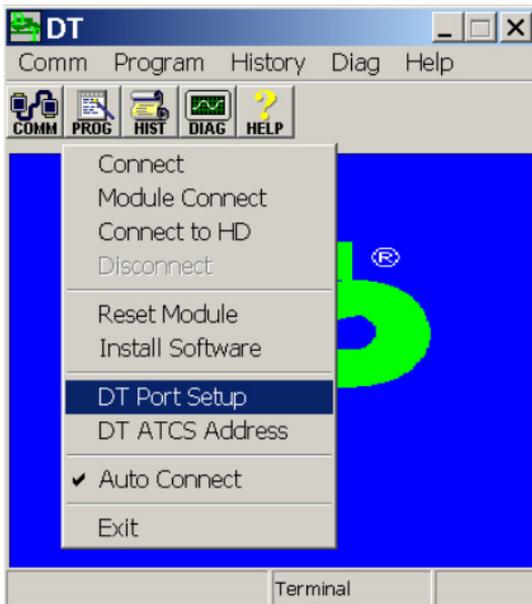
7) If **Discovery Protocol** is checked, deselect the check box.

8) Select **COM1:** in the Serial Port Selection box and select **9600** baud rate.

9) Select the **COMM** button or **COMM** drop down menu, then select **Connect.**
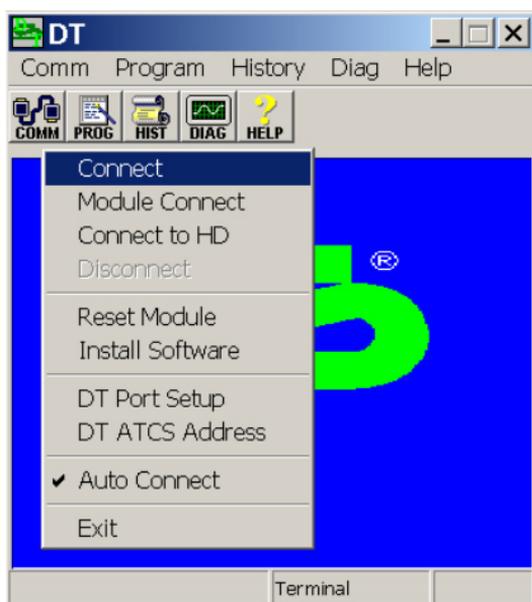
10) The DT main display appears.
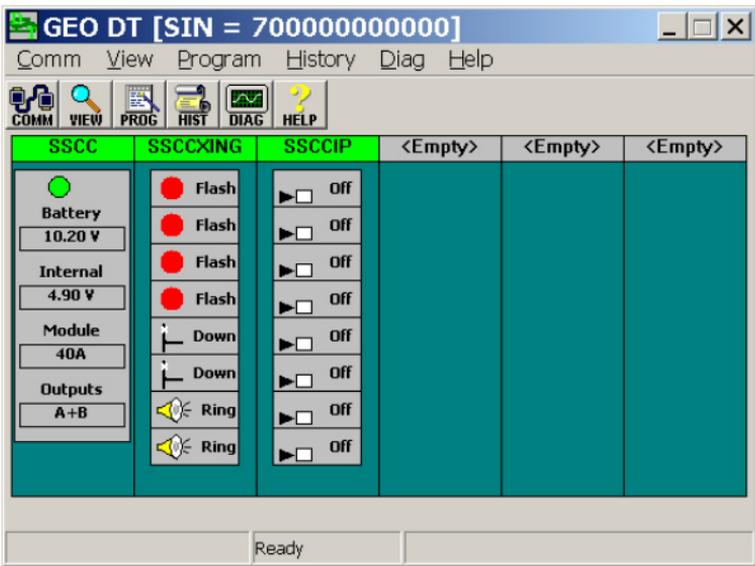
11) Select the **COMM** button or **COMM** drop down menu, then select **Install Software.**
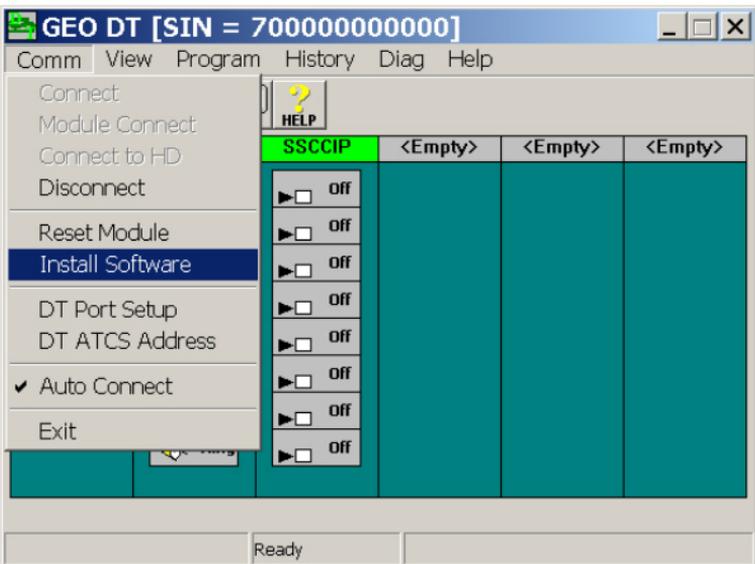
12) A prompt appears regarding module reset. Select **Yes**.
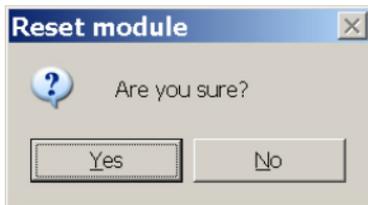
13) The SSCC reboots. A text terminal screen appears identifying boot code version, application version and application CRC. A progress bar at the bottom of this screen shows the download progress of the SSCC program set to the PC. The "Y" response to the "Change module setup" prompt is automatic.
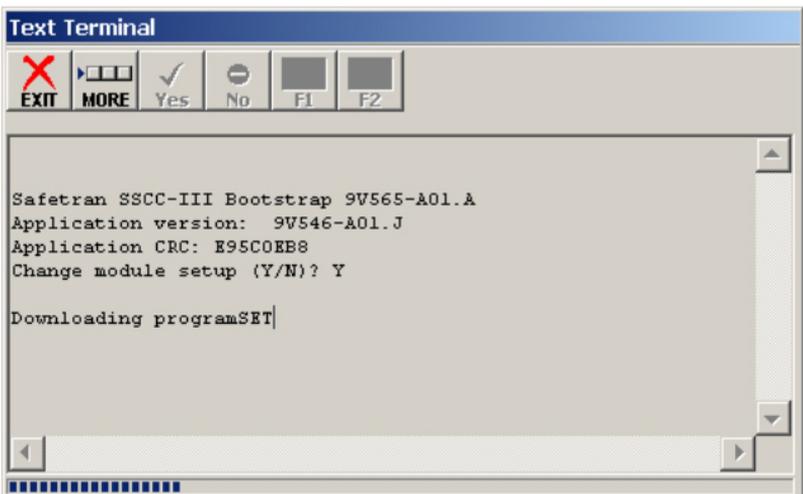
14) Following download of the program set, a screen appears allowing selection of software type to be installed.


```
Text Terminal
X      ▶□□□    √      ⊝     APP    BOOT
EXIT   MORE   Yes    No    CODE   CODE
                            F1     F2

Application CRC: E95C0EB8                        ▲
Change module setup (Y/N)? Y

Downloading programSET


Safetran SSCC-III Setup program 9V662-A01.C
F1-Change Application Code
F2-Change Boot Code
F3-Change Configuration Data
F8-Exit Setup
                                                ▼
◄                                            ►
```
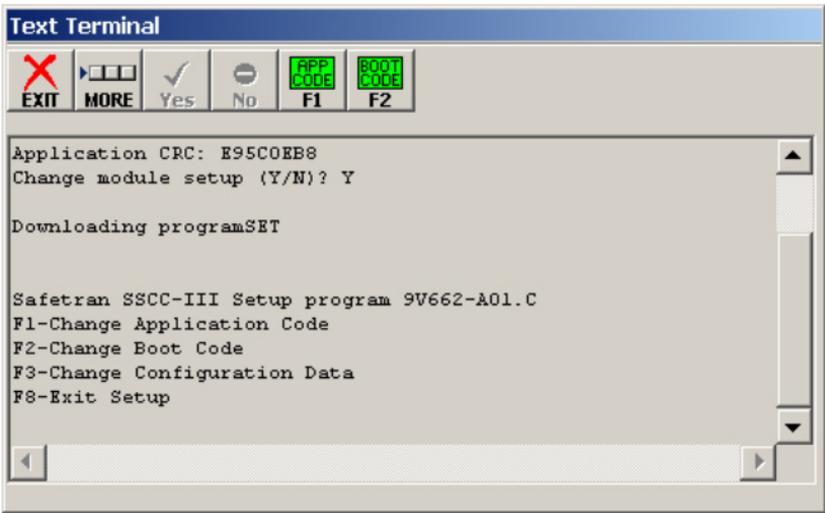
15) Press the PC keyboard F1 function button or select the **APP CODE F1** button at the top of the Text Terminal screen to change application software.

16) A screen appears that allows selection of the type of application software to be installed.


```
Text Terminal
X      ▶□□□   MASTER  ALL    SLAVE  SLAVE
EXIT   MORE    F2    SLAVE     1      2
                      F3      F4     F5

F8-Exit Setup                                   ▲

□
Select Application Code To Change:
F2-Master
F3-All Slaves
F4-Slave 1
F5-Slave 2
F6-Slave 3
F7-Slave 4
F8-Exit
                                                ▼
◄                                            ►
```
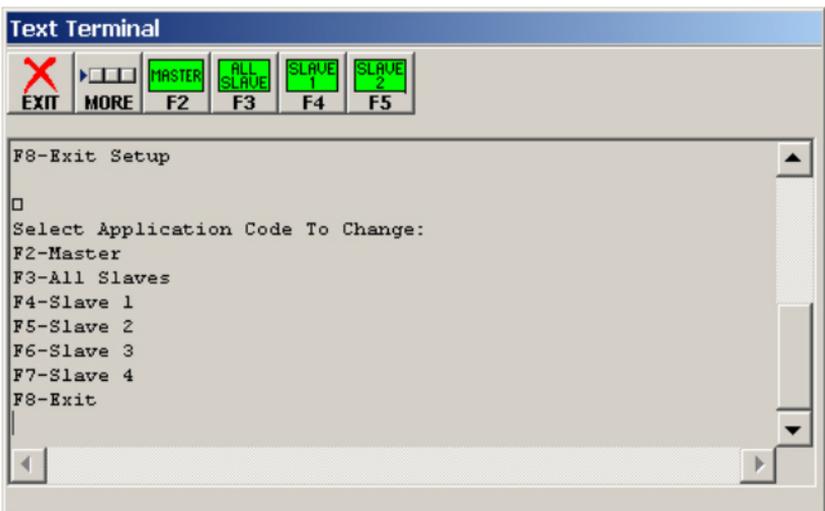
- To install a new master executive, proceed to the **MEF INSTALL** section below.
- To install a new slave executive, proceed to the **SEF INSTALL** section.

MEF INSTALL

1) To download a new master executive, select the **MASTER F2** button at the top of the screen**.**


```
Text Terminal
X      ▶□□□   MASTER  ALL    SLAVE  SLAVE
EXIT   MORE    F2    SLAVE     1      2
                      F3      F4     F5

F8-Exit Setup                                   ▲

□
Select Application Code To Change:
F2-Master
F3-All Slaves
F4-Slave 1
F5-Slave 2
F6-Slave 3
F7-Slave 4
F8-Exit
                                                ▼
◄                                            ►
```

4
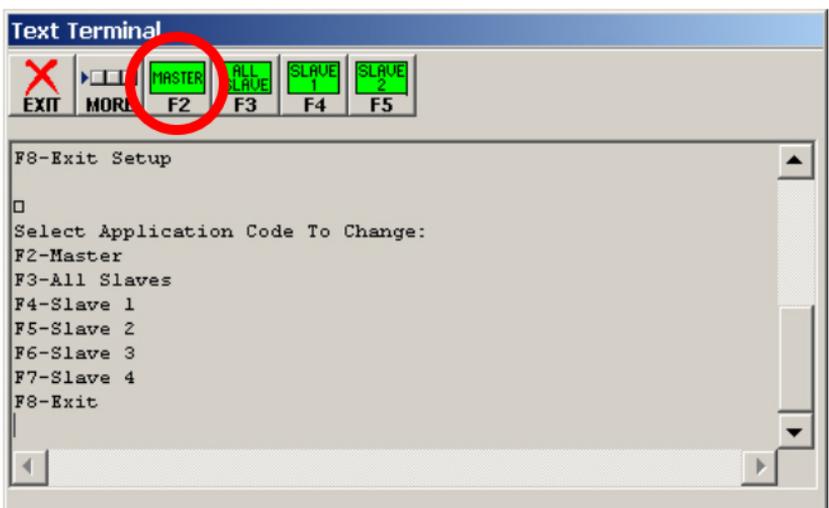
2) Select the 9V546A01.x, 9VA92A01.x or 9VC04A01.x file to be uploaded from the folder created on the PC hard drive (e.g., **C:\Siemens**), then select the **Open** button.
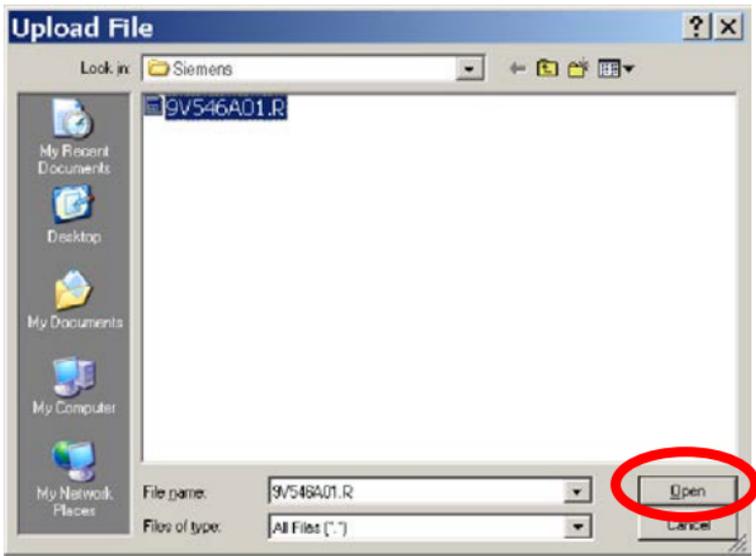
3) A screen appears indicating that the Flash memory is being erased (new MEF is being installed). A progress bar appears at the bottom of the screen. This process may take several minutes.
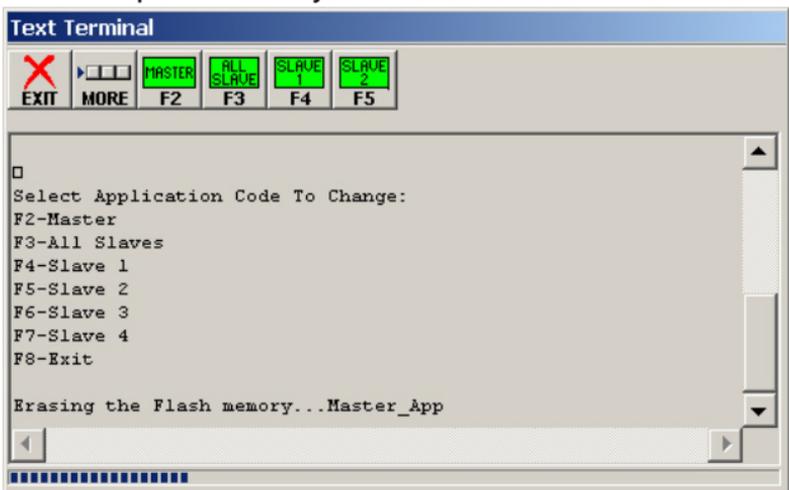
4) When the upload is complete, the new application software (MEF) is identified and the CRC for that file is displayed. Verify that MEF version and CRC are correct (see table at end of this guide).
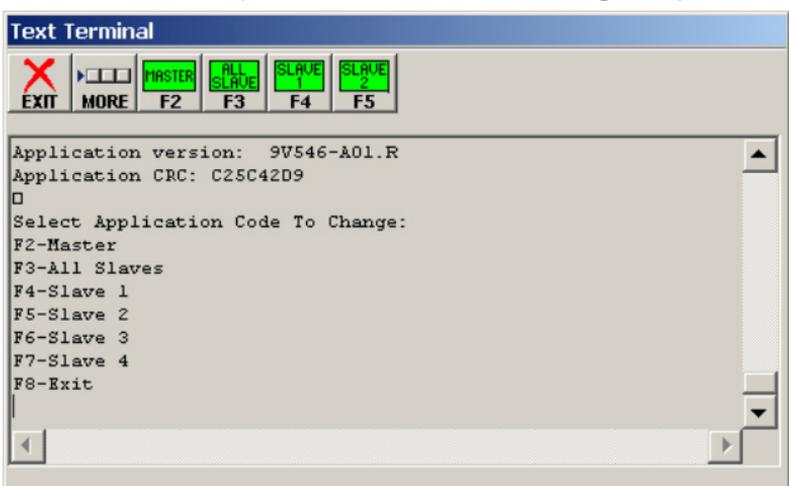
5) Proceed to the **SEF INSTALL** section to upload a new slave executive file.

SEF INSTALL

1) To upload a new slave executive to all slave processors, select the **ALL SLAVE F3** button at the top of the screen**.**
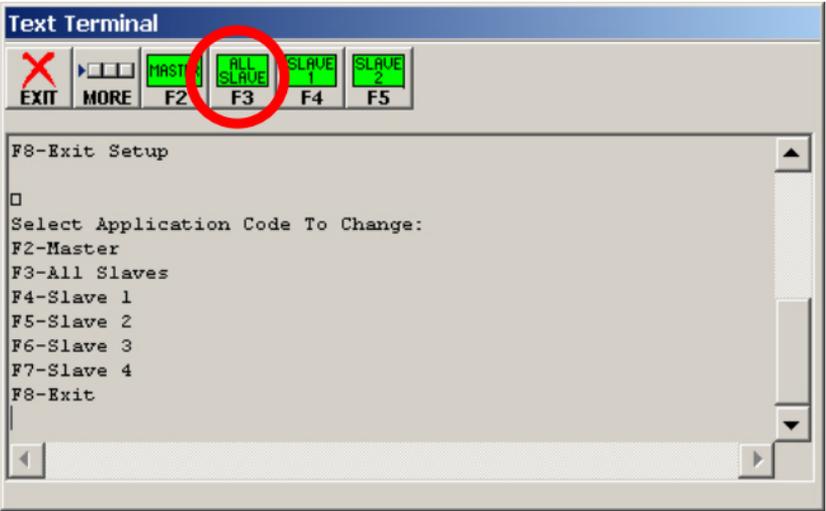
2) Select the 9V545A01.x, 9VC05A01.x or 9VA93A01.x file to be uploaded from the folder created on the PC hard drive (e.g., **C:\Siemens**), then select the **Open** button.
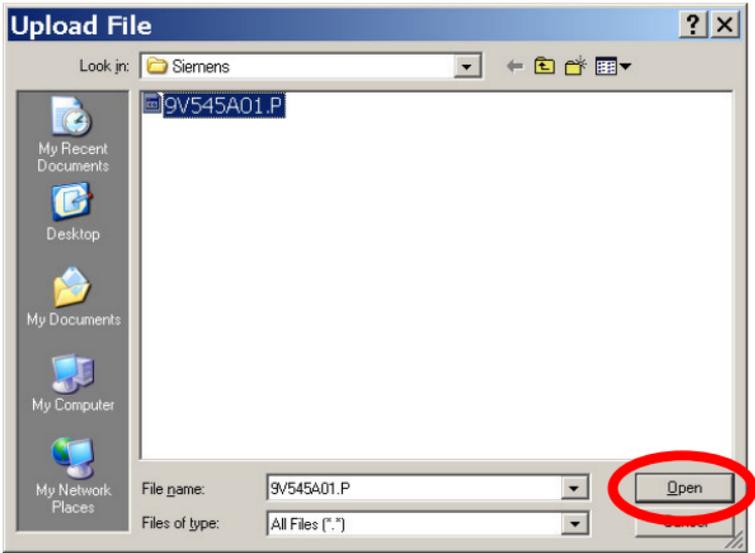
3) A screen appears indicating the new SEF is being installed. A progress bar appears at the bottom of the screen. This process may take several seconds.
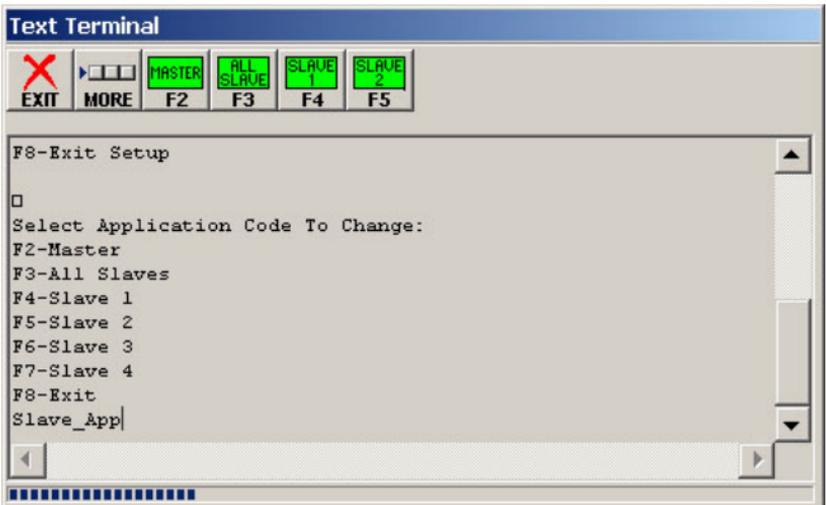
4) The Text Terminal screen then indicates as each slave processor is updated with the new SEF.

```
Text Terminal

EXIT   MORE   MASTER   ALL   SLAVE   SLAVE
              F2     SLAVE   1     2
                     F3    F4    F5

F5-Slave 2
F6-Slave 3
F7-Slave 4
F8-Exit
Slave_App

Sending software to Slaves...
Updating Slave 1 software successfully
Updating Slave 2 software successfully
Updating Slave 3 software successfully
Updating Slave 4 software successfully
Slave software update completed successfully
```
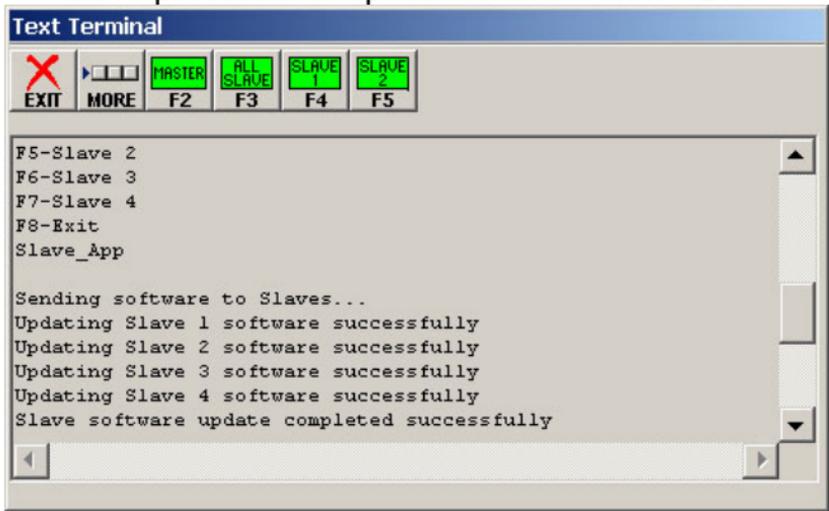
5) When the update is complete, the new application software (SEF) name and its CRC are displayed. Verify that SEF version and CRC are correct (see table at end of this guide).

```
Text Terminal

EXIT   MORE   MASTER   ALL   SLAVE   SLAVE
              F2     SLAVE   1     2
                     F3    F4    F5

SEF version: 9V545A01.P
SEF CRC    : 1A49F3F1
□
Select Application Code To Change:
F2-Master
F3-All Slaves
F4-Slave 1
F5-Slave 2
F6-Slave 3
F7-Slave 4
F8-Exit
```
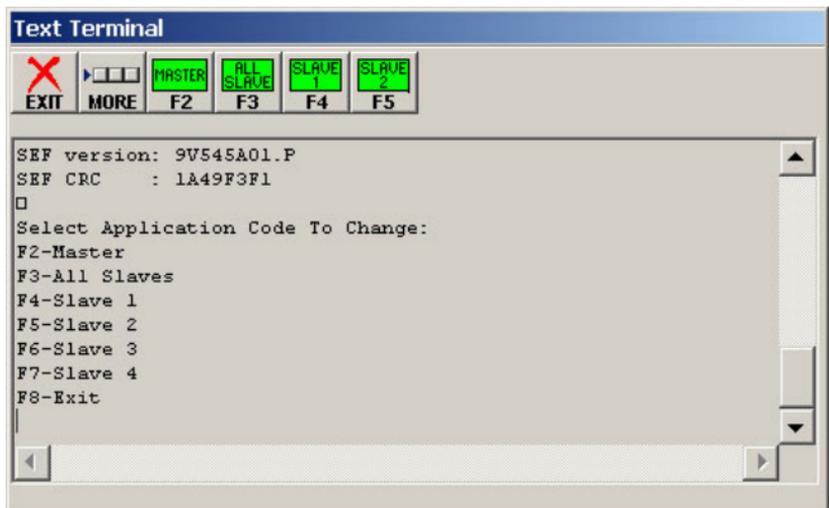
NOTE

If the screen shown in step 4 above indicates that one or more slaves was not successfully updated, wait for the update to complete and then select the corresponding button at the top of the screen (**SLAVE 1 F4**, **SLAVE 2 F5**, **SLAVE 3 F6** or **SLAVE 4 F7**) to reload the SEF for that slave processor only. Select the **MORE** button to display buttons **F6** and **F7**.

NOTE

To update MCFs, see document SIG-QG-08-23-001. Otherwise go to step 6 below.

6) Following successful completion of MEF and SEF updates, press keyboard F8 function key to exit the change mode.

```
Text Terminal

EXIT   MORE   ✓    ●    APP   BOOT
             Yes   No   CODE  CODE
                        F1    F2

F8-Exit

F1-Change Application Code
F2-Change Boot Code
F3-Change Configuration Data
F8-Exit Setup

F1-Change Application Code
F2-Change Boot Code
F3-Change Configuration Data
F8-Exit Setup
```
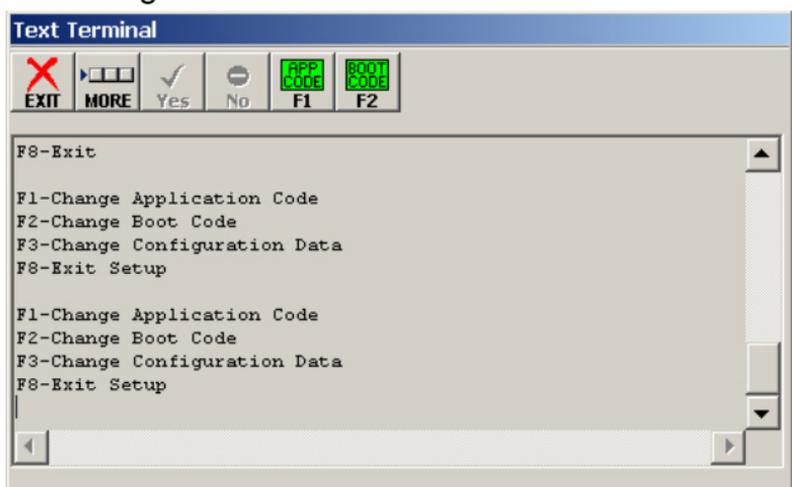
7) Press F8 again to exit Setup and start the application.


```
Text Terminal
EXIT  MORE  Yes  No  F1  F2

Setup finished

Safetran SSCC-III Bootstrap 9V565-A01.A
Application version:  9V546-A01.R
Application CRC: CZ5C42D9
Change module setup (Y/N)?
Application CRC approved
Starting the Application
The following is the reason for the previous time the system re
1E7 08/12/23 08:31:59.3 Default Cfg Options Used: Vtl User Cfg
1E7 08/12/23 08:31:59.6 System Fully Operational. MEF CRC: E95C
1E2 08/12/23 08:31:59.7 POWER:  OK , POWER MODULE: 20A, BANK S1
```

8) If no further software changes are to be made, select the **EXIT** button in the upper left corner of the screen to return to the DT splash screen.

9) Select the QUERY mode on the SSCC front panel and verify that the new MEF and SEF have been installed and that the CRCs are correct.

10) Proceed to the **RETURN TO SERVICE** section.

RETURN TO SERVICE

Before returning the SSCC to service, the following must be performed:

1) Select the SSCC **PROGRAM** menu.
2) Scroll to **SET TO DEFAULT**.
3) Press the SSCC front panel **ENTER** button.
4) Reprogram the SSCC. Verify that all system application parameters, configuration settings and lamp voltages are as previously recorded on the History Card.
5) Run the system verification tests from the **TEST** menu.
6) Perform any additional operational tests required by the railroad.
7) Return the system to service.

MEF CRC Values

File Name	CRC	File Name	CRC
9V546A01.J	E95C0EB8	9VC04AO1.A	7340B9DC
9V546A01.K	577981CE	9VC04AO1.B	B32ABEA2
9V546A01.L	3933A619	9VC04AO1.C	CFB0814A
9V546A01.M	754FBE8E	9VA92A01.B	63D42A77
9V546A01.N	CEACB37D	9VA92A01.C	50EE379D
9V546A01.R	C25C42D9	9VA92A01.D	EEF643DF

SEF CRC Values

File Name	CRC	File Name	CRC
9V545A01.J	E253472E	9VC05A01.A	8B488690
9V545A01.K	53B8432F	9VC05A01.C	5FE8370D
9V545A01.L	26DAF9F4	9VA93A01.A	B20BF427
9V545A01.P	1A49F3F1		