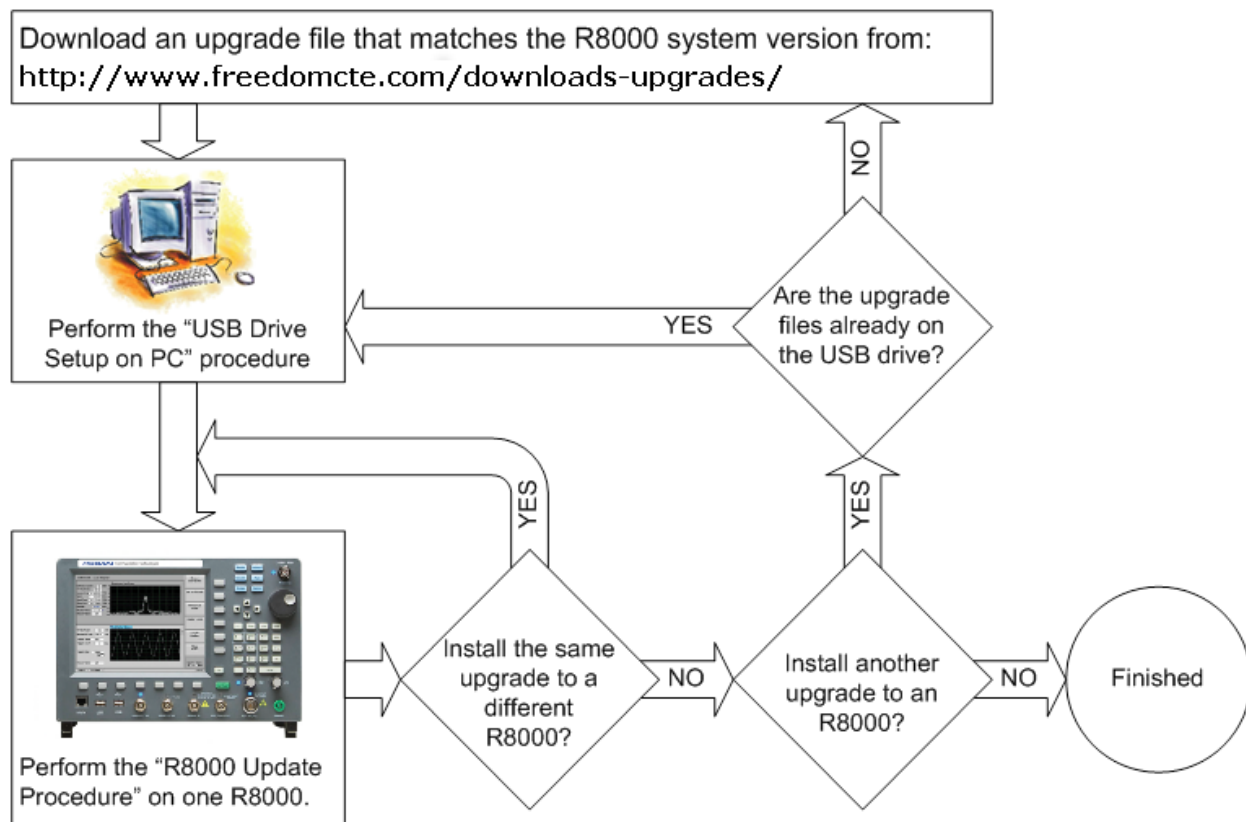## Purpose

This procedure upgrades the communications system analyzer software to 1.12.3.0. The update may be applied only to systems with the following system version:

```
1.11.2.0
```

This procedure must be performed in its entirety for the update to apply correctly. A USB thumb drive with approximately 219MB of free space is required to perform the upgrade.

Upgrade Procedure Overview

Conventions Used

Soft Key – Vertical and horizontal buttons along the edge of the communications system analyzer LCD screen.

<table>
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WARNING

PERFORM THESE STEPS WITH THE COMMUNICATION SYSTEM ANALYZER POWERED BY AN UNINTERRUPTABLE POWER SUPPLY (UPS). IF POWER IS LOST DURING AN UPDATE, IT IS POSSIBLE TO DAMAGE THE ANALYZER IN A MANNER THAT REQUIRES FACTORY REPAIR.

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WARNING

THIS PROCEDURE REQUIRES A USB THUMB DRIVE WITH CERTAIN SECURITY FEATURES DISABLED (FOR EXAMPLE, PASSWORD PROTECTION). THE COMMUNICATION SYSTEM ANALYZER IS NOT CONFIGURED TO SUPPORT SUCH SECURITY FEATURES.

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NOTE

THESE INSTRUCTIONS CONCERN UNPACKING A .ZIP FILE USING WINDOWS XP BUILT IN ZIP FILE EXTRACTION. IF OTHER TOOLS ARE USED TO UNPACK .ZIP FILES, CERTAIN PORTIONS OF THE PROCEDURE MAY NEED TO BE ALTERED.

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NOTE

WHILE IT IS ACCEPTABLE TO UNPACK MORE THAN ONE .ZIP UPDATE FILE TO A SINGLE USB DRIVE, AS THE UPDATE FLOW CHART ILLUSTRATES, IF MULTIPLE UPDATES ARE APPLIED IN SEQUENCE, IT IS CRITICAL THAT BOTH SECTIONS BELOW BE EXECUTED FOR EACH UPDATE.

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USB Drive Setup on PC

1. Extract the USB Files

    a. Move the "R8000_Update_010B0200_to_010C0300.zip" file to the top level directory of the USB drive. Do not place it in a sub-folder.

    b. Double-click the "R8000_Update_010B0200_to_010C0300.zip" file.

c. Under "Folder Tasks" in the explorer window, click "Extract all files".

   NOTE: If the Folder Tasks option is not visible, an acceptable alternative is to select File | Extract All… in the command menu.

d. The Compressed Folders Extraction Wizard is shown.
e. Select "Next"
f. In the window called "Extraction Wizard", click the "Browse" button and select the USB drive as the destination.

   NOTE: To see the USB drive, it may be necessary to click the "+" beside "My Computer" in the popup window called "Select a destination".

g. Press the "OK" button.
h. Press "Next" (to extract the files to the USB drive).
i. Ensure that the "Show extracted files" checkbox is checked.
j. Press the "Finish" button.

   Note that a "R8000_Update_010B0200_to_010C0300.cmd" file and a "GDSATCOM" folder are both present on the root of the USB drive.

2. Double click the "R8000_Update_010B0200_to_010C0300.cmd" file to activate the update on the USB drive. Normally a window pops up and automatically disappears when the operation completes successfully, but if an error occurs, the window does not close, and an error message is displayed. Do not continue the upgrade procedure until this operation completes successfully.

   If an error occurs, usually the drive either does not have enough free space or is write-protected. After correcting the problem, retry this operation.

3. Use the "Safely Remove Hardware" icon in the system tray area (bottom right corner of the screen on most Windows installations) of the task bar.

   WARNING – **The update may fail to apply properly if the "Safely Remove Hardware" operation is not performed.**

Windows XP   Windows Vista / 7

a. Double click the "Safely Remove Hardware" icon (shown above). A window appears.

   b. Select the appropriate USB device and click the "Stop" button. Another window is shown.

   c. Accept the default options by clicking "OK". A "Safe to Remove Hardware" bubble appears that indicates the operation is complete.

4. Remove the USB drive from the PC.
5. USB drive preparation is complete.

Communications System Analyzer Update Procedure

The approximate completion time for this procedure is 5 minutes.

1. Power up the analyzer using the green power button.
2. Wait approximately one minute for the analyzer boot sequence to complete.
3. Insert a USB drive prepared using the "USB Drive Setup on PC" procedure into an available USB port located on the front or side of the analyzer.
4. Wait about 30 seconds to allow the analyzer to identify the USB drive.

   If the USB drive has a light on it, several seconds after insertion, the light blinks rapidly for a short period of time. Depending on the USB drive type, the system indicates that identification is complete by either extinguishing the light or by transitioning it from a rapid blink to a slow, periodic blink pattern.

5. Press the <SETTINGS> button located on the analyzer front panel.
6. Press the "About…" soft key.
7. Verify that the current "System" version is 1.11.2.0.
8. Press the "Search for Updates" soft key.

   a. An "IMMEDIATE ACTION REQUIRED" message panel is shown.

   If the message panel is not shown, either the analyzer does not recognize that the USB drive is installed, or the USB drive preparation described in the "USB Drive Setup on PC" section was not successful. In some cases using a different brand or model of USB drive may be helpful.

   b. Press the "Continue" soft key to proceed with the update process.

   c. A second "IMMEDIATE ACTION REQUIRED" message panel is shown after the update files have transferred from the USB drive to the analyzer. For USB 2.0 compatible drives, the transfer requires about 20 seconds to complete. Allow additional time if a slower device is used.

   During this time, the standard operating menu is visible. While it may appear that the system is not processing the update, there is no need to navigate away from the settings screen or to press additional controls.

IMPORTANT: USB drive light activity ceases prior to completion of the transfer. Do not assume that the transfer has failed if the second panel does not appear immediately after the drive appears inactive.

If the panel fails to appear, a file on the USB drive is corrupt, or could not be processed, a red status bar ": code = <x>" message appears. Another way to confirm an error occurred is to press the <ESC> key and then select the "Messages…" soft key. Pertinent log entries appear with a red background and appear in the following format:

```
<Date> <Time> |SYSTEM: (7004) : code = <x>
```

The update procedure must be restarted if the transfer fails. It may be sufficient to re-run the "USB Drive Setup on PC" procedure using files previously obtained from the web site, but it may be necessary to download the files again if they are corrupted. In some cases, use of a different brand or model of USB drive may be helpful.

    d. Unplug all USB devices from the analyzer.
    e. Press the "Continue" soft key to apply the update.

9. Wait for the system software upgrade to begin.

The analyzer automatically reboots twice and then displays an "Upgrade in progress…" message.

10. Wait for the system software upgrade to complete.

The unit reboots during this process. When the upgrade is complete, the analyzer displays the standard user interface and resumes normal operation.

11. Press the <SETTINGS> button.
12. Press the "About…" soft key.
13. Verify that the "System" version has changed to 1.12.3.0.
14. Press the "Versions" soft-key and review the list of versions.

NOTE: If any version number is "0.0.0.0", an additional reboot may be required to return the unit to normal operation.

15. The upgrade is complete.

NOTE: If an "Upgrade in progress…" message is visible when the Analyzer is shut down, it is automatically removed the next time the system boots up.