Information Sheet IS24005

GV/NVLT Series: Using the System Health Eligibility Evaluation Program (SHEEP)

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IS24005: GV/NVLT Series: Using the System Health Eligibility Evaluation Program (SHEEP)

INFORMATION SHEET

1 INTRODUCTION

Some GV/NVLT transmitters are unable to complete certain software upgrades due to issues related to entering and exiting bootloader mode at the 'rack' level (see **NOTE** below). This document describes how to use the System Health Eligibility Evaluation Program (SHEEP), which evaluates the transmitter and determines if its rack(s) can be upgraded.

NOTE

The term 'rack' refers to an NAPC158 Module Control/Interface PWB in the transmitter. Each module control/interface PWB contains firmware that interfaces between a group of four (4) RF power modules and the transmitter to control and monitor critical signals. GV/NVLT transmitters contain the following number of module control/interface PWBs, or racks:*

GV3.5/5 or NV3.5/5LT: One rack (two RF power modules)
GV7.5/10 or NV7.5/10LT: One rack
GV15/20 or NV15/20LT: Two racks
GV30-N or NV30LT-N: Three racks
GV30/40 or NV30/40LT: Four racks
GV60: Six racks

Using SHEEP is the first step in performing higher-level software upgrades, such as flash-free AUI, GV2 compatibility, etc. Transmitters that are eligible for upgrade require one or more Field Modification kits to complete the upgrade. Transmitters that are not immediately eligible for upgrade require a different Field Modification kit to re-program the rack firmware.

SHEEP can be used remotely, if the transmitter is in remote enabled mode. If not, the transmitter must be put into remote enabled mode at the site.

1.1 Equipment Affected

This information sheet applies to all GV series transmitters that are using GV SW 5.x.y and all NVLT series transmitters that are using NVLT SW 5.x.y.

NOTE

GV60 transmitters can run SHEEP, but Nautel does not currently support an upgrade to flash-free AUI, GV2 compatibility, etc. for GV60 transmitters. NVLT transmitters can run SHEEP in preparation for future software upgrades, as they become available, including flash-free.

1.2 Responsibility for Implementation

This procedure should be performed by qualified personnel who are familiar with accessing and using the GV/NVLT series transmitter's remote AUI.

1.3 Scheduling

Perform this procedure at the earliest convenience of transmitter maintenance personnel, and before ordering any associated Field Modification Kit. **NOTE**: The transmitter must be 'off-air' during the evaluation. Off-air time should be less than five (5) minutes.

1.4 Manpower Requirements

Implementing these instructions requires one person for less than 30 minutes.

1.5 Special Tools/Test Equipment

- Local computer for direct connection or network computer with web browser
- CAT5 Ethernet cable, straight-through or crossover
- SHEEP exe file, via web download

1.6 Materials

No special materials are required to complete the procedure.

1.7 Publications Affected

This modification does not affect the transmitter's documentation.

2 USING SHEEP

(a) Set the transmitter to remote-enabled mode via the local AUI touch screen or controller UI. Refer to the *Operation & Maintenance Manual* for instructions.

(b) Download the SHEEP executable file (see link below) to a laptop that will be used to connect directly to the transmitter or, depending on the network configuration at the transmitter site, to a computer that is currently on the same network as the transmitter. Refer to the *Non-Standard Maintenance -> Upgrading Software* section in the *Operation and Maintenance Manual* for configuration information.

http://www3.nautel.com/pub/Utilities/SystemHealthEligibilityEvaluationProgram/SystemHealthEligibilityEvaluationProgram_1.0.1.exe

(c) Run the SHEEP executable file by double-clicking the downloaded file. The screen shown in Figure 1 will display.

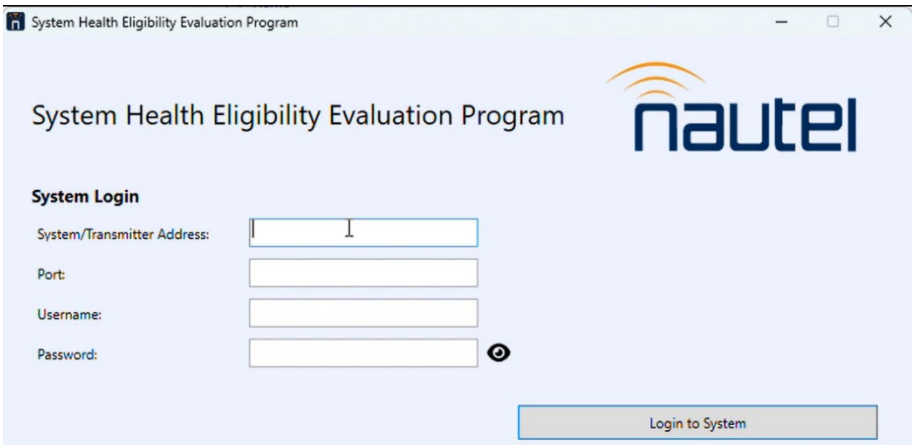

Figure 1: SHEEP login screen

NOTE

For SHEEP to complete successfully, the username and password entered in step (d) must log into a user account that has permissions to turn RF on and off.

(d) Enter the **System Login** parameters for the transmitter's remote AUI, including System/Transmitter (IP) Address, Port (default is 3501), Username (default is Nautel) and Password (default is no password). Click **Login to System**. If the connection is successful, the screen in Figure 2 will display. If the connection is unsuccessful, a connection error message will appear. In this case, verify the system/transmitter IP address and port number in the AUI's **Menu -> User Settings -> Network Settings** screen, re-enter the **System Login** parameters, and try again.

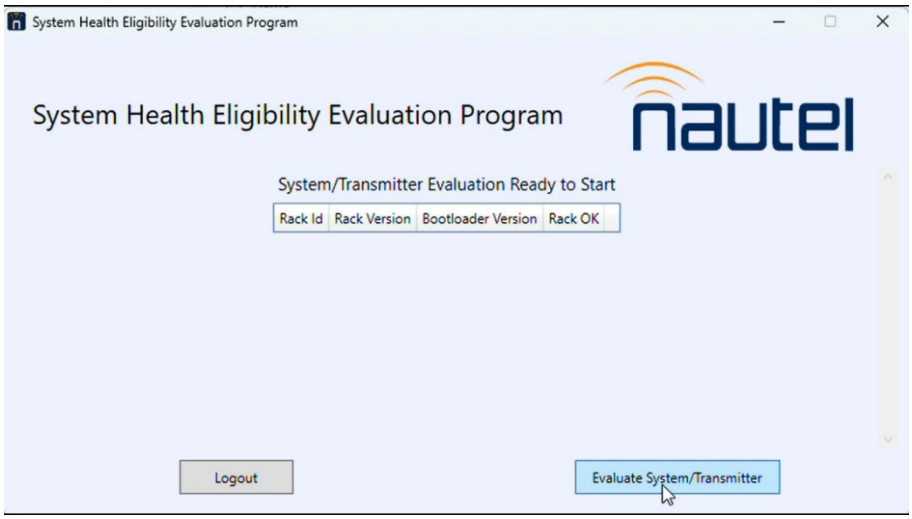

Figure 2: SHEEP start screen

(e) Observe and record the transmitter's operating status and any existing alarms.

(f) Set the GV/NVLT transmitter to its RF Off state.

(g) Click the **Evaluate System/Transmitter** button to start the evaluation. A prompt may appear to indicate that RF is already off, and that you will need to turn it back on manually when finished. Click **Yes** to continue. If you start the evaluation in an RF On state, the pop-up in Figure 3 will appear indicating that RF will be turned off:

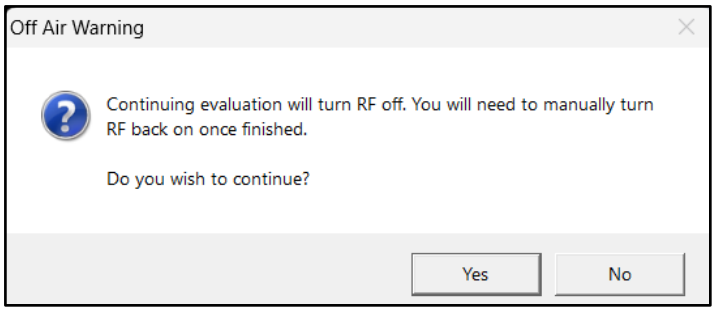

Figure 3: Off Air Warning pop up

(h) The program will begin evaluating the 'Rack version' and 'Bootloader version' for each rack in the transmitter. This may take up to two minutes. A progress bar will be displayed throughout the evaluation, along with messages indicating the evaluation details.

(i) When the evaluation is complete, an information prompt will appear to verify that the AUI is not reporting any alarms before attempting to RF on. If any new alarms are present that were not present in step (d), you will need to cycle (off, then on) the transmitter's ac power. Click **OK** on this prompt to view the evaluation results. Figure 4 shows the completion of a successful evaluation, including the rack and bootloader versions for each rack, plus checkmarks to indicate that the racks (and transmitter) are eligible for software upgrade.

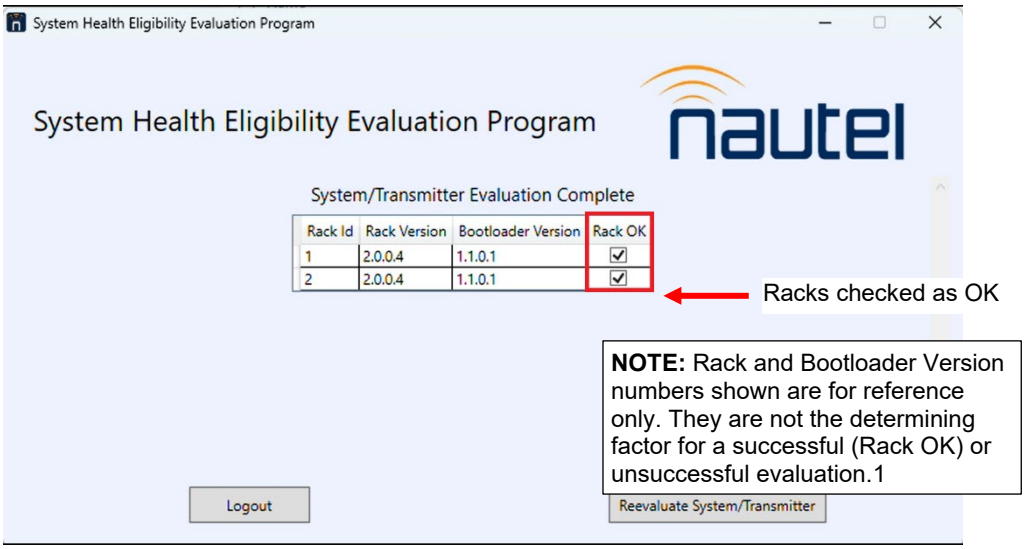

Figure 4: SHEEP successful completion screen

(j) If an evaluation discovers an issue with one or more racks, there will be messages like those shown in Figure 5. SHEEP will make several attempts to retry a rack evaluation, before flagging the rack with an issue.

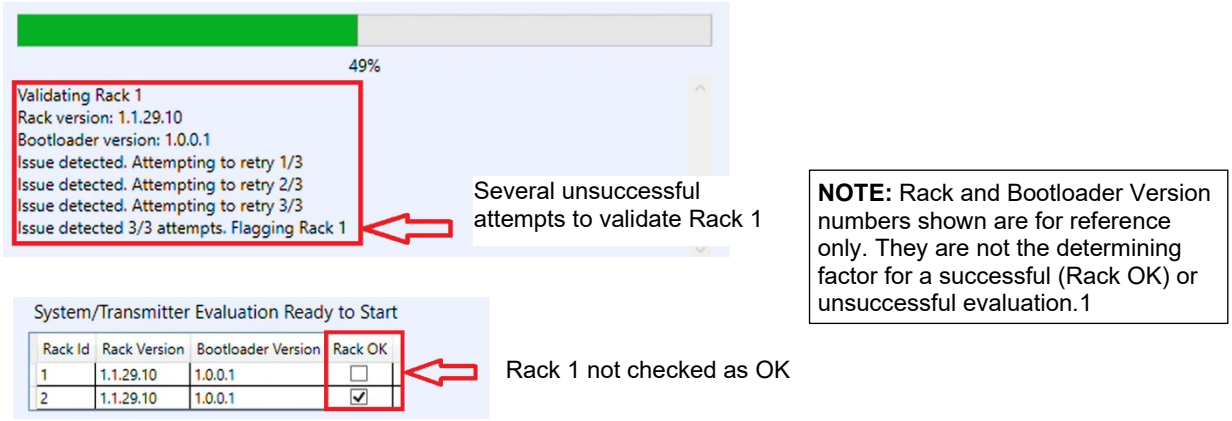

Figure 5: SHEEP unsuccessful progress and completion screen

(k) If the evaluation was successful, your transmitter is eligible for specific software upgrades. Report this to a Nautel Customer Service representative at support@nautel.com to discuss the Field Modification required to proceed.

(l) If the evaluation was not successful, your transmitter is not yet eligible for specific software upgrades. Click the **Reevaluate System/Transmitter** button to perform the software evaluation again. If still unsuccessful, report this to a Nautel Customer Service representative at support@nautel.com to discuss the Field Modification required to re-program your transmitter's rack firmware.

(m) Return the transmitter to desired operation.

If you have any questions or require additional assistance, please contact Nautel's Customer Service Department at:

Telephone: 1-902-823-5100 or 1-877-628-8353 (Canada & USA)
Email: support@nautel.com