

Information Sheet IS23016

SC4 Software Upgrade Procedure (Astro – Malaysia)

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INFORMATION SHEET

1 INTRODUCTION

The SC4 units in for Astro (Malaysia) transmitter systems require a software update before going on air. This document describes how to perform the software upgrade.

The SC4 (U1 of the NAX281 or NAX282 Control Module must be programmed with new 'Configuration' and 'Workspace' files.

- The Configuration file is made up of the different settings, addresses and commands that control the SC4.
- The Workspace file is the view or Graphic User Interface (GUI) that is created by users to make the site information easier to visualize and understand.

1.1 Equipment Affected

This procedure applies to all SC4 units and associated VX2 transmitters in Astro (Malaysia) transmitter systems (Nautel Part numbers 235-8950, 235-8960 and 236-8960-01).

1.2 Responsibility for Implementation

This procedure should be carried out by qualified station maintenance personnel who are familiar with VX series transmitter and the SC4 System Controller. Nautel recommends you perform a software upgrades at the transmitter site.

NOTE

For port-forwarded transmitters, uploading of the .tgz file must occur locally or on the transmitter side of the router.

1.3 Scheduling

This procedure should be performed only when a software upgrade is required. The transmitter does not need to be off-air during the entire procedure, but will be off-air for between two and five minutes when the upgrade completes and the transmitter reboots.

IMPORTANT!

Ensure that ac power to the transmitter is <u>uninterrupted</u> for at least 20 minutes after the software upgrade is complete. Failure to observe this will render the transmitter inoperable.

1.4 Manpower Requirements

Implementing these instructions will require approximately 30 minutes.

1.5 Special Tools/Test Equipment

- Local computer for direct connection or network computer with Web browser
- CAT5 Ethernet cable
- Upgrade software, provided via email or web download
- USB drive, minimum 1 GB, FAT32 formatted, to store upgrade software file



1.6 Publications Affected

This modification does not affect the VX or transmitter system documentation.

2 PROGRAMMING THE SC4 SYSTEM CONTROLLER

Access the Nautel FTP website (<u>http://www3.nautel.com/pub/</u>) to locate and download the required version of SC4 software. There are two files that will be required:

- a .ctex file type which contains the SC4 "configuration"
- a .dvw file type which contains the SC4 "workspace"

NOTE

If you cannot locate the correct version of software, contact Nautel customer service (<u>support@nautel.com</u>).

2.1 Loading the Configuration File

To load/program the new Configuration file, perform the following steps:

(a) To gain access to the web-based interface, connect an Ethernet cable between the PC/laptop and the Ethernet switch on the rear of the control module (see Figure 1).



Figure 1: Ethernet Switch Location on the Control Module

NOTE

The NAX281 Control Module has an 8-port Ethernet switch (see Figure 1). The NAX282 Control Module (for main-standby systems) has a 5-port Ethernet switch.

- (b) The SC4's default IP address is 198.168.1.210, therefore you must configure your PC network settings to be under the same network.
 - IP: 192.168.1.115
 - Subnet Mask: 255.255.255.0
- (c) Once your PC network settings have been properly configured, use a web browser to connect to the web page 198.168.1.210. and log in using the following credentials:
 - Username: admin01
 - Password: aaaaaaaa



(d) Once logged in, note the top bar menu of the user interface (see Figure 2). This menu and its various dropdown selection options is referenced throughout the procedure.



Figure 2: User Interface top bar menu

(e) Select **System ► Administration** from the dropdown menu along the top of the screen. The menu in Figure 3 will appear.

General	
Take Control	Reboot
Update Certificate	Factory Test
Feature Key	Calibration
Factory Reset	
Factory Reset	Erase Config
Configuration transfer	
Davicom to PC	PC to Davicom
Firmware upgrade	
Current Firmware : 6.08.27735	Upgrade
Previous Firmware : 6.04.24968	Load Previous

Figure 3: System – Administration screen

- (f) In the Configuration transfer section of the menu select PC to Davicom (SC4). A File Explorer window will open. Navigate to the location of the configuration file (.ctex file type) that you wish to load and double click the file.
- (g) The SC4 will validate and load the configuration file. When this operation is complete, select the Exit button to close the Administration Menu.



2.2 Loading the Workspace File

Perform the following procedure to load/program the new Workspace file:

- (a) Select **System ► Workspaces** from the dropdown menu along the top of the screen.
 - The menu in Figure 4 will appear.

	Workspaces		×
PC to Unit tab	homene er la ci	PC to Unit Dinit to PC	
	Workspaces :	"WI - Nautel Main/Stand ♥ Workspace Name :	
File Transfer button	-		₽₽

Figure 4: System – Workspaces screen

- (b) Ensure the Workspaces: dropdown is set to 1W1-xxxxxx.
- (c) Select the PC to Unit tab and select the File Transfer button.
- (d) Confirm that you wish to upload a new workspace and a File Explorer window will open. Select the workspace file (.dvw) here and wait for the upload to complete.
- (e) Log out of the SC4 and log in as admin01 [see step 2.1 (c)].

<u>NOTE</u>

Steps (f) through (h) are for N+1 systems only.

(f) <u>For N+1 systems only</u>: select **Devices** ► **USB Serial** from the dropdown menu along the top of the screen. The menu in Figure 6 will appear.

USB Serial			×
ID ID	Name	Description	
	FTDI USB-RS485 Cable	ADAM 4068	
USBS2			
	C		€



(g) Check the 1USBS1 device checkbox and select the edit (tools icon) button. The configuration screen in Figure 7 will appear.



USB Serial - 1USBS1				×
ID : Descriptions Action:		~		
Descriptions Active Default :	ADAM 4068	Normal Default :	ADAM 4068	
Alternate :	ADAM 4068	Alternate :	ADAM 4068	
Vocal description				
		Ċ		BB

Figure 7: Devices – USB Serial configuration screen

(h) Select the Actions tab to display the screen in Figure 8. Verify the fields are configured as shown. If any information is not set properly, change as required and press the Save button when complete. Press the Exit button to close the configuration screen.

USB Serial – 1USBS1					
ID :	1 USBS1	~			
Descriptions Actions					
Action Type :	CMD	~	🗹 System log		
Qualifier :					
Usage :	Modbus	~			
Parameters					
Baud Rate :	115200	~	Bits :	8	~
Flow Control :	NONE	~	Parity :	NONE	~
Initialisation String :			Stop :	1	~
					EX
			Ċ	SA	

Figure 8: Devices - USB Serial configuration screen - Actions tab

(i) <u>For all systems</u>: select System ► IP Configuration from the dropdown menu along the top of the screen. The IP Configuration screen will appear. Select the SNMP Agent tab to display the screen in Figure 9.



onfiguration				
General E-mail	Dynamic DNS	SSL Certificates	Web FTP	SNMP Agent
SNMP Mode :			Send Trap	s & Read/Write
NMP Port (Default 161):		161	
Community (Read Only)	1:		public	
Community (Read/Write	e) :		private	
			Cort	tex MIB file
- Alarm Trap Parameter	rs			
Type :			Trap V1	~
Port (Default 162) :			162	
Community :				
Traps State OID Type	:		BITS	~
SNMP V3 Agent				
SNMP V3 Alarm	Trap			
end Test Trap To :				
		Trap Test		
		Ċ		R

Figure 9: System – IP configuration screen – SNMP Agent tab

- (j) Verify the SNMP Mode: selection is as shown. If not, select "Send Traps & Read/Write" and select the Save button. Select the Exit button to close the configuration screen.
- (k) The SC4 software upgrade is complete.

3 UPGRADING THE VX TRANSMITTER'S SOFTWARE

Refer to the "Upgrading Software" section of the VX Operations and Maintenance Manual for a procedure to perform a software upgrade on the VX transmitters.

