



Web UI v2 User Manual

Web UI User Manual

Publication Number:

Revision Level: v0B

Revision Date: June 2020

Warranty

NovAtel Inc. warrants that its GNSS products are free from defects in materials and workmanship, subject to the conditions set forth on our web site: novatel.com/products/novatel-warranty-and-return-policies.

Return Instructions

To return products, refer to the instructions found at: novatel.com/products/novatel-warranty-and-return-policies.

Proprietary Notice

Information in this document is subject to change without notice and does not represent a commitment on the part of NovAtel Inc. The software described in this document is furnished under a licence agreement or non-disclosure agreement. The software may be used or copied only in accordance with the terms of the agreement. It is against the law to copy the software on any medium except as specifically allowed in the license or non-disclosure agreement.

The information contained within this manual is believed to be true and correct at the time of publication.

NovAtel, ALIGN, GLIDE, NovAtel CORRECT, OEM7, PwrPak7, RELAY, SPAN, STEADYLINE and VEXXIS are registered trademarks of NovAtel Inc.

OEM719, OEM729, OEM7500, OEM7600, OEM7700, OEM7720, SMART7, SMART2, RELAY7 and RTK ASSIST are trademarks of NovAtel Inc.

All other brand names are trademarks of their respective holders.

© Copyright 2020 NovAtel Inc. All rights reserved.

Unpublished rights reserved under International copyright laws.

Table of Contents

Web UI v2WeUser Manual	1
Web UI User Manual	2
Warranty	2
Return Instructions	2
Proprietary Notice	2
Chapter 1 Web User Interface	5
1.1 Open the Web UI	5
1.2 Web UI Main Window	5
1.2.1 Alerts	6
1.2.2 Settings Icon	6
Chapter 2 Settings Overview	7
2.1 Back Button	7
2.2 User Preferences	7
2.3 Network Settings	7
2.4 Device Info	10
2.5 Terminal	12
2.6 Update	14
2.6.1 Update Firmware	14
2.6.2 Update Web UI Content	15
2.7 Reset	16
Chapter 3 Function Tabs	17
3.1 Position Tab	17
3.1.1 Position Status Window	17
3.1.2 Position Configuration Window	19
3.1.2.1 Position Configuration – SBAS	19
3.1.2.2 Position Configuration – TerraStar	20
3.1.2.3 Position Configuration – RTK	22
Base	23
Rover	24
3.1.2.4 Position Configuration – NTRIP	25
Server	25
Client	26
3.2 Constellation Tab	27
3.2.1 Constellation Status Window	27
3.2.2 Constellation Configuration Window	29
3.3 Tracking Tab	29
3.3.1 Tracking Status Window	29
3.3.2 Tracking Configuration Window	31
3.4 Port Tab	31
3.4.0.1 Port Status Window	32
3.4.1 Port Configuration Window	33
3.5 Logging Tab	34
3.5.1 Logging Status Window	34
3.5.2 Logging Configuration Window	35
3.5.3 Edit Logs	38
3.6 Storage Tab	39

3.6.1 Storage Status Window	39
3.6.2 Storage Configuration Window	40
3.6.2.1 Internal Memory	41
3.6.2.2 USB Selected	42
3.6.2.3 File Management	42
3.6.2.4 Auto-Transfer	43
3.6.2.5 Transfer Port	43
3.7 ALIGN Tab	43
3.7.1 ALIGN Status Window	43
3.7.2 ALIGN Configuration Window	44
3.8 SPAN Tab	45
3.8.1 SPAN Status Window	45
3.8.2 SPAN Configuration Window	46

Chapter 1 Web User Interface

The NovAtel Web User Interface (UI) is used to monitor, configure and update a variety of receiver functions via Ethernet or Wi-Fi.

Once communications has been established with the receiver, the NovAtel Web UI can be opened on any device with a web browser such as a smart phone, laptop, etc.

1.1 Open the Web UI

Once the receiver is connected and powered, locate the PwrPak7 in the list of detected Wi-Fi Networks and establish a connection. The PwrPak7 SSID is printed on a label on the bottom of the receiver. The format of the SSID is PwrPak7-<Receiver PSN>, e.g. "PwrPak7-ABCDEF1234567".



The NovAtel Web User Interface is compatible with Chrome, Firefox and Safari.

A prompt for a password will appear. On the bottom of the PwrPak7 the default password, specific to that PwrPak7 unit, is printed on the label. The default password can be changed. Refer to Network Settings Button for details.



OEM7 receiver cards can also use the Web UI via an Ethernet connection. No password is required as long as the card is connected and has an IP address.



Cookies should always be on and never blocked on the browser being used to connect to the Wi-Fi network.

After a Wi-Fi connection is established, open a web browser and navigate to the receiver's URL, which is 192.168.19.1 by default. The receiver WebUI homepage opens.


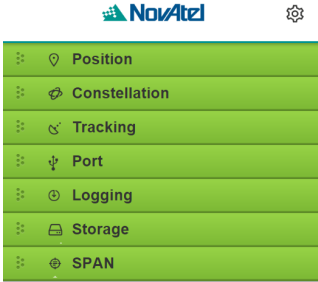

More advanced monitoring, configuring and updating can be performed using any terminal/command line application (including the terminal of the NovAtel Web UI).

1.2 Web UI Main Window

The user interface for the Web UI is built using a responsive layout so computers, phones and devices of all sizes automatically display to size in the device window. If opened on a desktop/laptop, the Status Windows for all features are automatically displayed. If opened on a mobile device, the windows are closed and just the tabs are displayed.

Desktop/Laptop Main Window

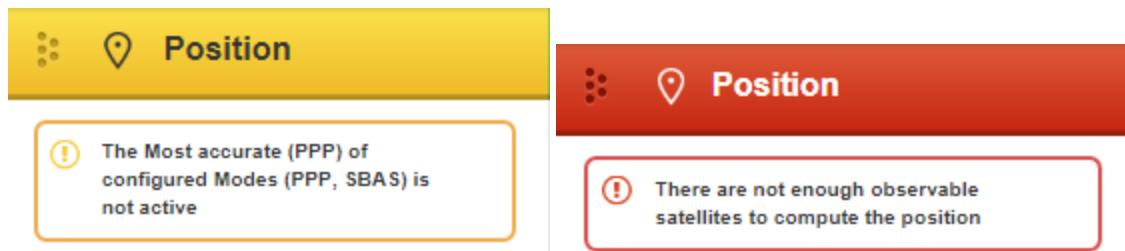
Mobile Device Main Window - Tabs

	
<p>Status Windows open automatically and display current status information</p>	<p>Click on a Tab to open the Status Window to display current status information</p>
<p>Click on a Function Tab to open the Configuration Window specific to that function. Configure options as needed</p>	 <p>Swipe a Tab to the right to open the Configuration Window specific for that function. Configure options as needed</p>

1.2.1 Alerts

Alerts, applicable to a specific Function Tab, appear at the top of a Status Window indicating the current state of the receiver.

Examples:



A yellow alert message provides information regarding the current state of the receiver.

A red alert message provides information regarding errors affecting the receivers ability to properly function. The alert will remain until the situation is corrected. Check Port Status Window and/or the Position Status Window to review activity.

1.2.2 Settings Icon

Under the [Settings Overview](#) on [page 7](#), network settings are managed, information regarding the connected receiver is displayed, a terminal/command line is available and the ability to update the receiver firmware and the Web UI is provided.

Chapter 2 Settings Overview

Click the Cog button (⚙️) to display Network Settings, Device Information, Terminal Command Line and Updating functionality.

🔧 = **User Preferences** below

📶 = **Network Settings** below

ℹ️ = **Device Info** on page 10

🖥️ = **Terminal** on page 12

⬇️ = **Update** on page 14

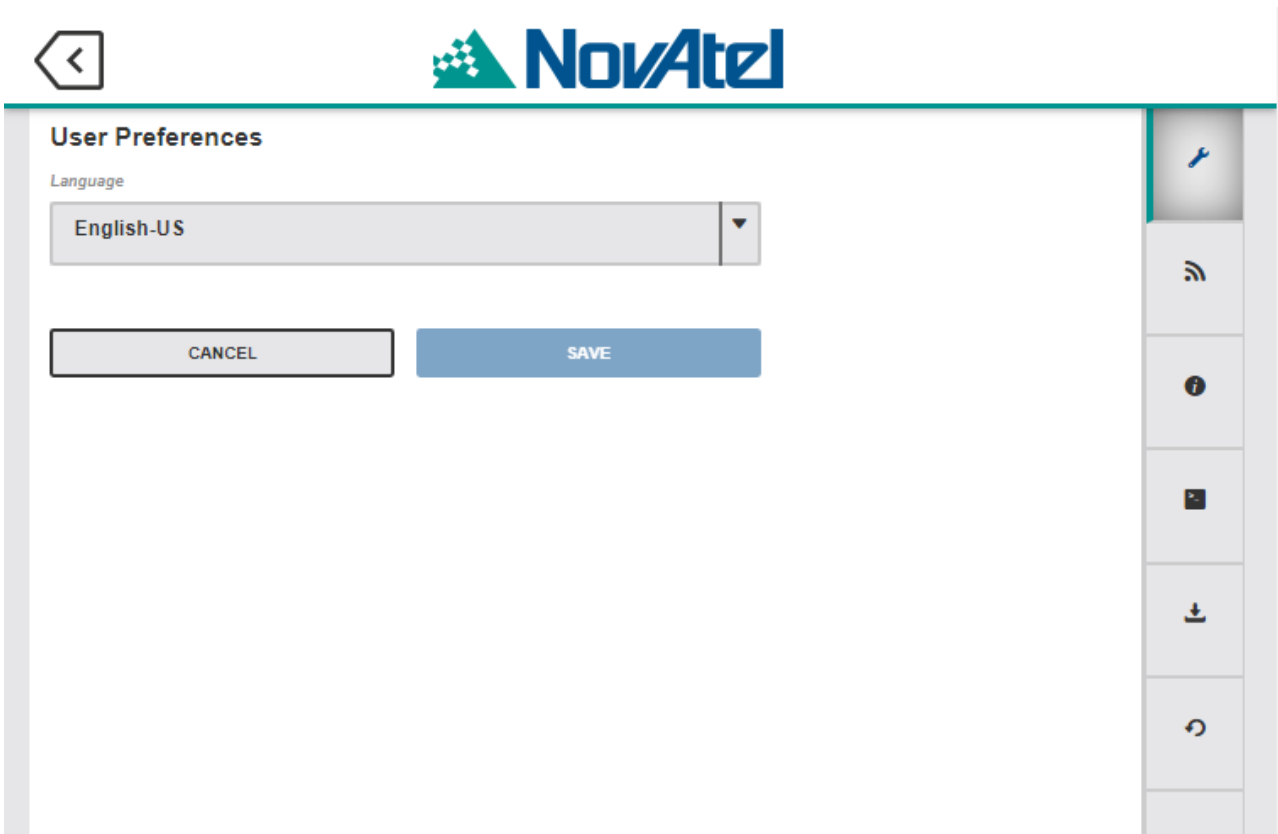
🔄 = **Reset** on page 16

2.1 Back Button

Use the Back button (⏪) to return to the Status Window.

2.2 User Preferences

From the *User Preferences* window, the language used for the Web UI interface can be changed. To change the language, select the language from the **Language** drop list and then click the **Save** button.



2.3 Network Settings

View the current network settings or turn network(s) on/off. The information shown depends on the network interface available on the receiver.

If receiver has only an Ethernet interface, DHCP can be turned on or off.



Network Settings

Ethernet

DHCP

Off



On

IP

198.161.68.150

Subnet Mask

255.255.254.0

Gateway

198.161.68.1

Cancel

Apply



If the receiver has both an Ethernet interface and Wi-Fi, information for both interfaces are displayed.



Network Settings

Wi-Fi

AP Name (SSID)
PwrPak7-NMNE17200009B

Password
.....

Show Password

Channel
11

Auth Protocol
WPA2

IP
192.168.19.1

Subnet Mask
255.255.255.0

Broadcast SSID
Off On

Ethernet

DHCP
Off On

IP

Subnet Mask

Gateway

Cancel

Apply

If required, change the password by entering a new password in the password field and pressing the **APPLY** button.

Turn the *Broadcast SSID on or off*: on to display device name in network list; off to not display.

Once settings selected, press the **APPLY** button to save the changes or the **CANCEL** button to return to previous settings.

2.4 Device Info

Displays important information regarding the receiver hardware and firmware version.



Device Info

ENCLOSURE

Product Serial Number

DMMU17260049R

GPS Card

- Receiver Model
FDDRYNTBN
- Authcode Expiry
Not Applicable
- Other Available Models
 - FFNRYNTBNR2
- Product Serial Number
DMMU17260049R
- Product Features
 - Constellation : GPS+GLONASS+GALILEO+BDS
 - Frequencies : L1/L2/E1/E5b/B1/B2
 - RTK Positioning : RTK Fixed, RTK Float, RTK Tx, DGPS Tx/Rx
 - Measurement Output Rate : 20 Hz
 - Correction Service : NTRIP
- Hardware Version
OEM7720-0.00F
- Software Version
OM7MR0302RN0000
- Boot Version
OM7BR0002RBG000



2.5 Terminal

Use the *Terminal* to directly send commands to the receiver and display any receiver acknowledgments and outputs.

Enter a command at the top and press **RETURN**.

Terminal

-
-
-
-
-
-

- Load
- Capture screenshot. Save
- Record

Load Button = Press to load a list of commands from a file to the receiver and automatically execute those commands.

Save Button = Press the button to save a list of any commands issued in the Terminal to a file.

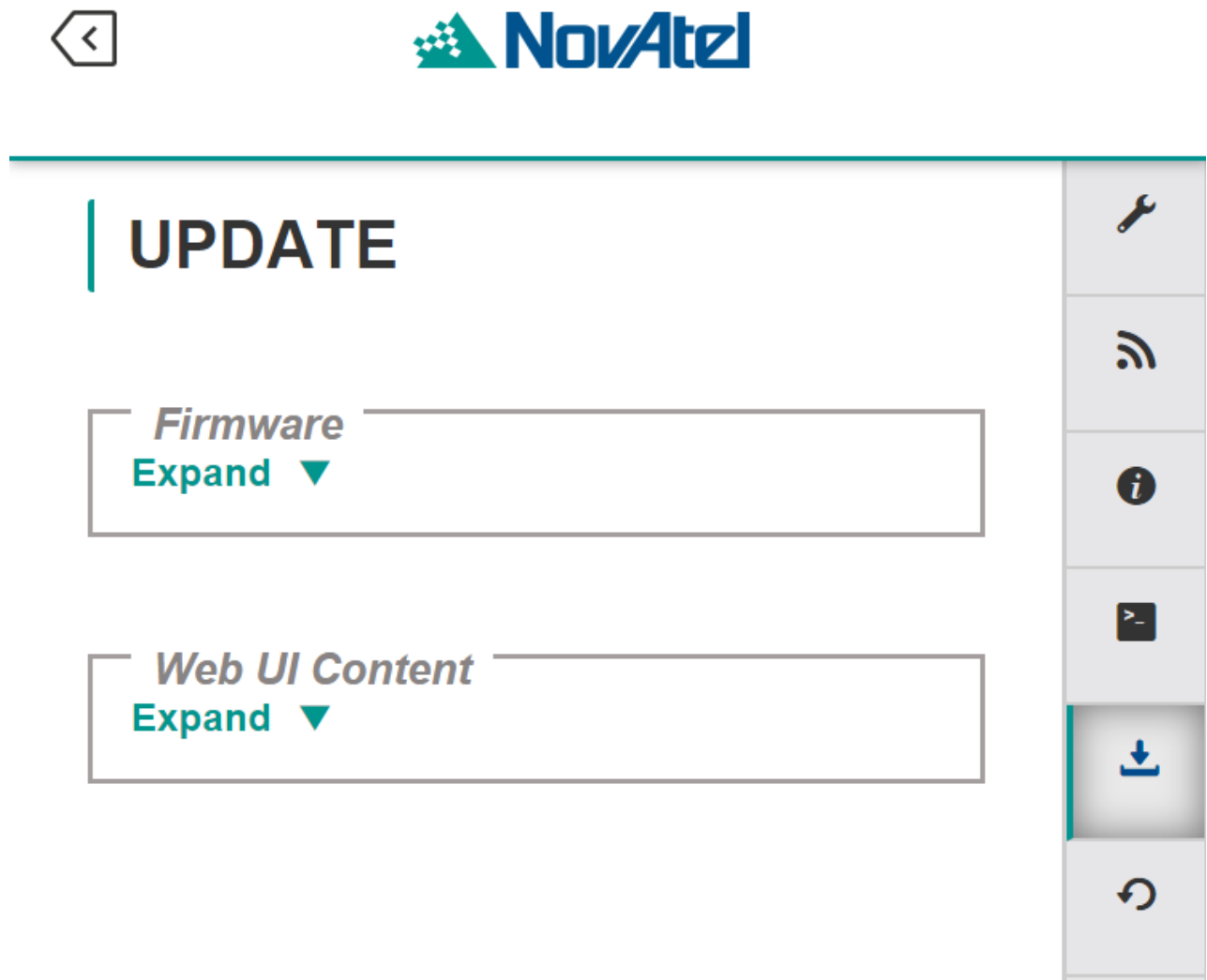
Record Button = Press the button to begin recording all activity in the Terminal. Press again to stop recording. A prompt to Save the recording to a file automatically displays.



The Terminal window does not support logging rates higher than 1 Hz.

2.6 Update

The Firmware and/or Web UI can be updated.



Use the / icons to expand/collapse the update fields.

2.6.1 Update Firmware

Use to update the firmware loaded in the receiver. Copy the .shex file to the device's local drive before uploading.

The screenshot shows a web interface for updating firmware. It is titled "Firmware" and contains the following fields and buttons:

- Receiver Model:** BMHR17090005E
- Product Serial Number:** FFNRNNCBES1
- Firmware Version:** OM7CR0301AN0009
- Select New Firmware File:** A text input field followed by a "CHOOSE FILE" button.
- Auth Code(Optional):** A text input field.
- UPLOAD:** A large teal button.
- Collapse ▲:** A small teal button at the bottom left.

Use the **CHOOSE FILE** button to navigate to the .shex file location and select. If an Auth Code is also being applied, the Auth Code can be entered in the Auth Code field. Press the **UPLOAD** button. Once upload complete, Web UI automatically returns to the Main Window.

2.6.2 Update Web UI Content

Use to update the Web UI. Copy the .hex file to the device's local drive before uploading.

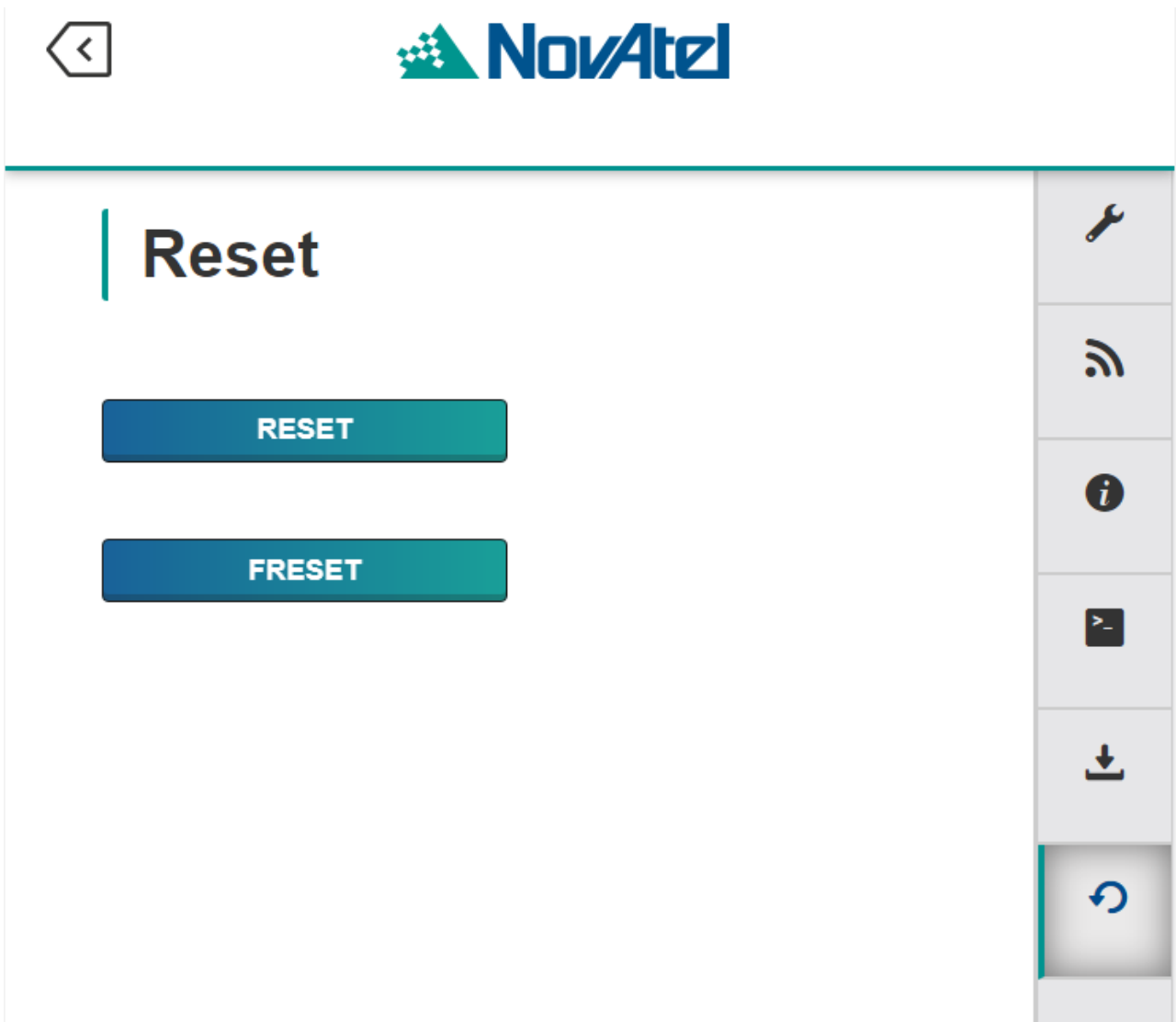
The screenshot shows a web interface for updating Web UI content. It is titled "Web UI Content" and contains the following fields and buttons:

- Web UI Version:** WMC010201DN0005
- Select New Firmware File:** A text input field followed by a "CHOOSE FILE" button.
- UPLOAD:** A large teal button.
- Collapse ▲:** A small teal button at the bottom left.

Use the **CHOOSE FILE** button to navigate to the .hex file location and select. Press the **UPLOAD** button. Once upload complete, Web UI automatically returns to the Main Window.

2.7 Reset

Use this window to RESET or FRESET the receiver.



Click the **RESET** button to perform a software reset on the receiver. The receiver configuration reverts to the settings saved using the SAVECONFIG command.

Click the **FRESET** button to clear the data stored in non-volatile memory and restart the receiver. The data cleared includes the almanac, ephemeris and any user configuration.

For more information, refer to the RESET, FRESET and SAVECONFIG commands in the OEM7 Documentation Portal (docs.novatel.com/OEM7).

Chapter 3 Function Tabs

Each function of the Web UI has a Tab. Under each tab is a Status Window to view/monitor information and a Configuration Window to adjust various setting and options.

Available Function Tabs are:

- **Position Tab** below
- **Constellation Tab** on page 27
- **Tracking Tab** on page 29
- **Port Tab** on page 31
- **Logging Tab** on page 34
- **Storage Tab** on page 39
- **ALIGN Tab** on page 43
- **SPAN Tab** on page 45

The color of the tab depends on the status of function: Red=Bad, Yellow=Locked out or Average, Green=Good

3.1 Position Tab

Display information regarding the current position such as Position Type, latitude, longitude, Solution Status, etc., and configure a variety of position options.

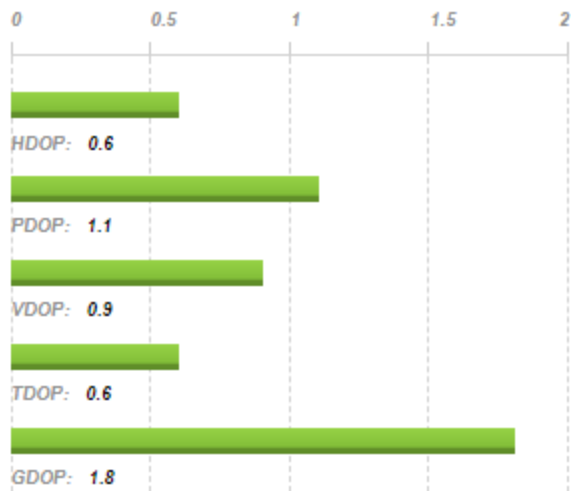
- **Position Status Window** below
- **Position Configuration – SBAS** on page 19
- **Position Configuration – TerraStar** on page 20
- **Position Configuration – RTK** on page 22
- **Position Configuration – NTRIP** on page 25

3.1.1 Position Status Window

The Position Status Window displays a variety of information about the receiver position and solution status.

Position

<i>Configured Position Mode</i>	<i>Position Type</i>
NONE	SINGLE
<i>Latitude</i>	<i>Longitude</i>
51.11678172°	-114.03886425°
<i>Height</i>	<i>Accuracy</i>
1063.365 m	1.633 m
<i>Solution Age</i>	<i>Differential Age</i>
0 s	0 s
<i>IONO Correction</i>	<i>Solution Status</i>
Multi Frequency	SOL COMPUTED



Configured Position Mode

The displayed setting values depend on how the receiver is configured under the Position Configuration Tab.

Position or Velocity Type

Descriptions of the Type are listed in the BESTPOS log section in the OEM7 Documentation Portal (docs.novatel.com/OEM7).

Solution or Differential Age

The Solution or Differential Age is the age of the current solution. Typically, this represents the latency in the correction data.

Iono Corrections

The Iono Corrections indicate the current ionospheric correction model in use.

Solution Status

The Solution Status indicates if the position has been computed and, if not, provides a possible reason. The possible values are listed in the BESTPOS log section in the OEM7 Documentation Portal (docs.novatel.com/OEM7).

DOP

Displays the calculated Dilution of Precision (DOP) values for the solution.

3.1.2 Position Configuration Window

The Position Configuration Window is used to:

- Define SBAS Control settings
- Display TerraStar subscription details, L-Band beams and PPP controls
- Configure RTK Base or Rover correction ports and correction types
- Configure NTRIP Server or Client settings



Click on a tab to display available options.

3.1.2.1 Position Configuration – SBAS

Use the Position Configuration – SBAS Window to define how the receiver tracks and uses correction data from Satellite Based Augmentation Systems (SBAS).

Use the drop menus to define the SBAS Control system type and the Testmode to define how the receiver interprets messages.

Refer to the Table: System Types in the SBASCONTROL command in the OEM7 Documentation Portal (docs.novatel.com/OEM7).



SBAS Control

AUTO

PRN

0

Testmode

NONE

CANCEL APPLY

The image displays the configuration fields for the SBAS tab. It includes three dropdown menus: 'SBAS Control' set to 'AUTO', 'PRN' set to '0', and 'Testmode' set to 'NONE'. At the bottom, there are two buttons: a grey 'CANCEL' button and a blue 'APPLY' button.

Once settings selected, press the **APPLY** button to save the changes or the **CANCEL** button to return to previous settings.

The screenshot shows a web interface for "Position Configuration". At the top, there is a green header bar with a location pin icon and the text "Position Configuration". Below this is a horizontal tab bar with four tabs: "SBAS", "TERRASTAR", "RTK", and "NTRIP". The "SBAS" tab is currently selected and highlighted. Below the tabs, there are three dropdown menus. The first is labeled "SBAS Control" and has "ANY" selected. The second is labeled "PRN" and has "0" selected. The third is labeled "Testmode" and has "NONE" selected. At the bottom of the form, there are two buttons: a light gray "CANCEL" button and a red "DISABLE" button.

Press the **DISABLE** button to turn Configured Position Mode off.

3.1.2.2 Position Configuration – TerraStar

Use the Position Configuration – TerraStar Window to:

- Review current TerraStar subscription details
- Review L-Band Beams selected
- Select PPP Control

Position Configuration

SBAS **TERRASTAR** RTK NTRIP

Subscription Details

Type	Region
TERM	NEARSHORE
Date	
2017	

L-Band Beams

Beam Name	C/No	DOP	LockTime
98W	41.047157287597656	-125.96834564208984	66745.6015625
AORW	40.239356994628906	42.33509826660156	66744.796875
POR	32.92644119262695	97.66862487792969	23.989999771118164

PPP Control

IDLE

CANCEL **APPLY**

Once settings selected, press the **APPLY** button to save the changes or the **CANCEL** button to return to previous settings.

Position Configuration

SBAS
TERRASTAR
RTK
NTRIP

Subscription Details

<i>Type</i> TERM	<i>Region</i> NEARSHORE
<i>Date</i> 2017	

L-Band Beams

Beam Name	C/No	DOP	LockTime
98W	41.66581726074219	-120.18754577636719	66205.6015625
AORW	40.77656555175781	46.71273422241211	66204.796875
POR	0	-717.2513427734375	0

PPP Control

AUTO
▼

CANCEL

DISABLE

Press the **DISABLE** button to turn Configured Position Mode off.



Refer to the ASSIGNLBANDBEAM command for PPP Control details.

3.1.2.3 Position Configuration – RTK

Use the Position Configuration – RTK Window to:

- Define the receiver as a Base or Rover
- Select the communication port to receive or transmit corrections
- Define the correction type serial interface mode. Refer to Table: Serial Port Interface Modes in the INTERFACEMODE command


Base

Position Configuration

SBAS TERRASTAR **RTK** NTRIP

Base Rover

Correction Port
COM1

 [Port Configuration](#)

Correction Type
RTCMV3

AUTO FIXED

Survey Time
24 HOUR

Accuracy
2 M

CANCEL APPLY



The Port Configuration link (in blue, beside Cog icon) is a short cut to open the Port Configuration Tab.

Set to AUTO to use position averaging to automatically determine the position for a base station. The default setting is AUTO.

The screenshot shows a settings panel with two tabs: 'AUTO' (selected) and 'FIXED'. Under the 'AUTO' tab, there are two dropdown menus. The first is labeled 'Survey Time' and is set to '24 HOUR'. The second is labeled 'Accuracy' and is set to '2 M'.

Set to FIXED to fix the position to help improve acquisition time and accuracy of position or corrections.

The screenshot shows the same settings panel but with the 'FIXED' tab selected. The 'Survey Time' and 'Accuracy' dropdowns are no longer visible. Instead, there are three text input fields: 'Latitude' with the value '51.11679124120786', 'Longitude' with the value '-114.03886960452053', and 'Altitude' with the value '1064.8103973567486'.

Two buttons are shown at the bottom of the interface. The 'CANCEL' button is a light gray rectangle with the text 'CANCEL' in the center. The 'APPLY' button is a teal rectangle with the text 'APPLY' in the center.

Once settings selected, press the **APPLY** button to save the changes or the **CANCEL** button to return to previous settings.

Rover

Rover corrections port and type are the same as the Base.

Position Configuration

SBAS TERRASTAR **RTK** NTRIP

Base Rover

Correction Port
COM2

Port Configuration

Correction Type
RTCMV3

CANCEL APPLY

Once settings selected, press the **APPLY** button to save the changes or the **CANCEL** button to return to previous settings.

3.1.2.4 Position Configuration – NTRIP

Set up and configure NTRIP communications as either an NTRIP server or an NTRIP client. Set NTRIP to client for easy access to reference stations or network RTK corrections or set to Server for quick integration into GNSS infrastructure.



Refer to NTRIP Configuration for details on NTRIP overall configuration. Refer to the NTRIPCONFIG command for endpoint, port and type descriptions.

Server

Set to Server to define a Base.

Define the Endpoint, Correction Port and Correction Type. Once the Endpoint is entered, a drop list of the available Mountpoints in the network is automatically populated in the Mountpoint field.

Set to AUTO to use position averaging to automatically determine the position for a base station or set to FIXED to fix the position to help improve acquisition time and accuracy of position or corrections. The default setting is AUTO.

Position Configuration

SBAS TERRA STAR RTK **NTRIP**

Server Client

Endpoint

Correction Port

Correction Type

Mountpoint

Username

Password

AUTO FIXED

Survey Time

Accuracy

Once settings selected, press the APPLY button to save the changes or the CANCEL button to return to previous settings.

Client

Set to Client to define a Rover.

Define the Endpoint, Correction Port and Correction Type. Once the Endpoint is entered, a drop list of the available Mountpoints in the network is automatically populated in the Mountpoint field.

Position Configuration

SBAS
TERRASTAR
RTK
NTRIP

Server Client

Endpoint

Correction Port

Correction Type

Mountpoint

Username

Password

CANCEL
APPLY

Once settings selected, press the **APPLY** button to save the changes or the **CANCEL** button to return to previous settings.

3.2 Constellation Tab

The Constellation Tab is used to display each satellite the receiver is tracking in graphical format and turn on and off the constellations that display.

3.2.1 Constellation Status Window

Concentric circles from 0° to 90° represent elevations from the horizon to directly overhead. The azimuth is mapped on a compass relative to true North.

The PRN of the satellite tracked appears on the Satellite icon. Click on an icon to display the Pseudo Random Number (PRN), Azimuth (AZ), Elevation (ELEV), Status and Signal to Noise Ratio (CNO). In addition, the signal strength appears as a color-coded bar below the satellite icon. Refer to icon and color legends within the Constellation Status window for definitions.

Constellation



#/#: Satellites Used/Tracked.

- GPS
10/10
- GLONASS
8/9
- BEIDOU
0/0
- GALILEO
0/4
- QZSS
1/1
- SBAS
0/0



PRN:	CNO
-	-

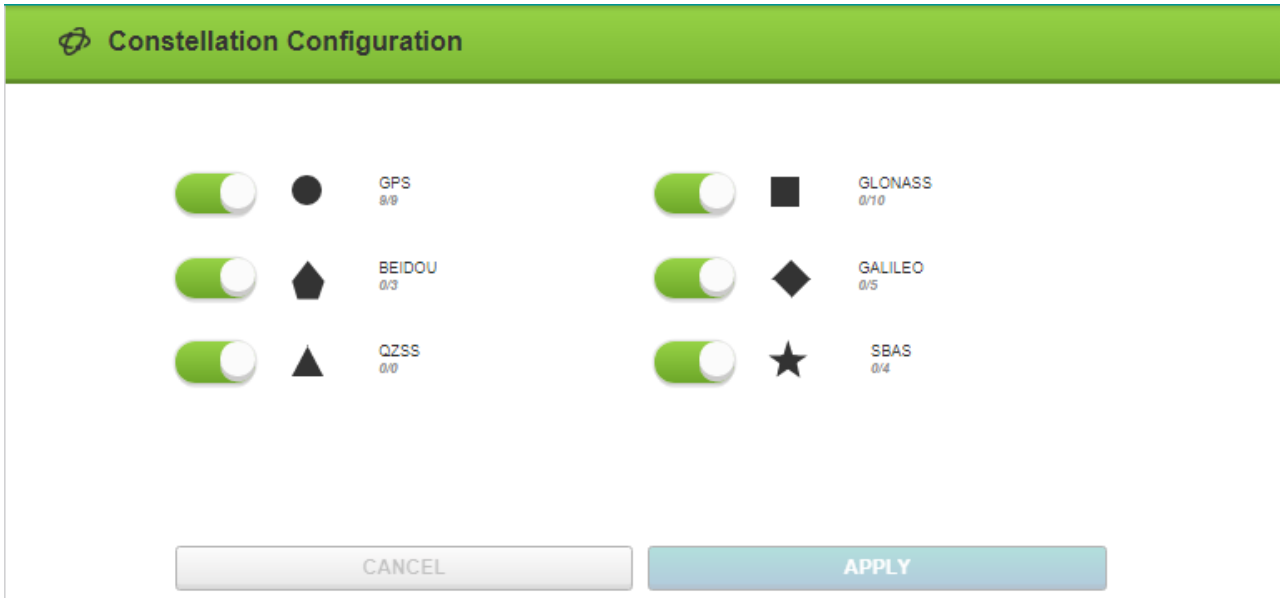
Status	
-	

Azimuth	Elevation
-	-



3.2.2 Constellation Configuration Window

Use the Constellation Configuration Window to select the signals to track by clicking right or left on the buttons.  indicates a signal is off and not tracking;  green indicates the signal is being tracked.



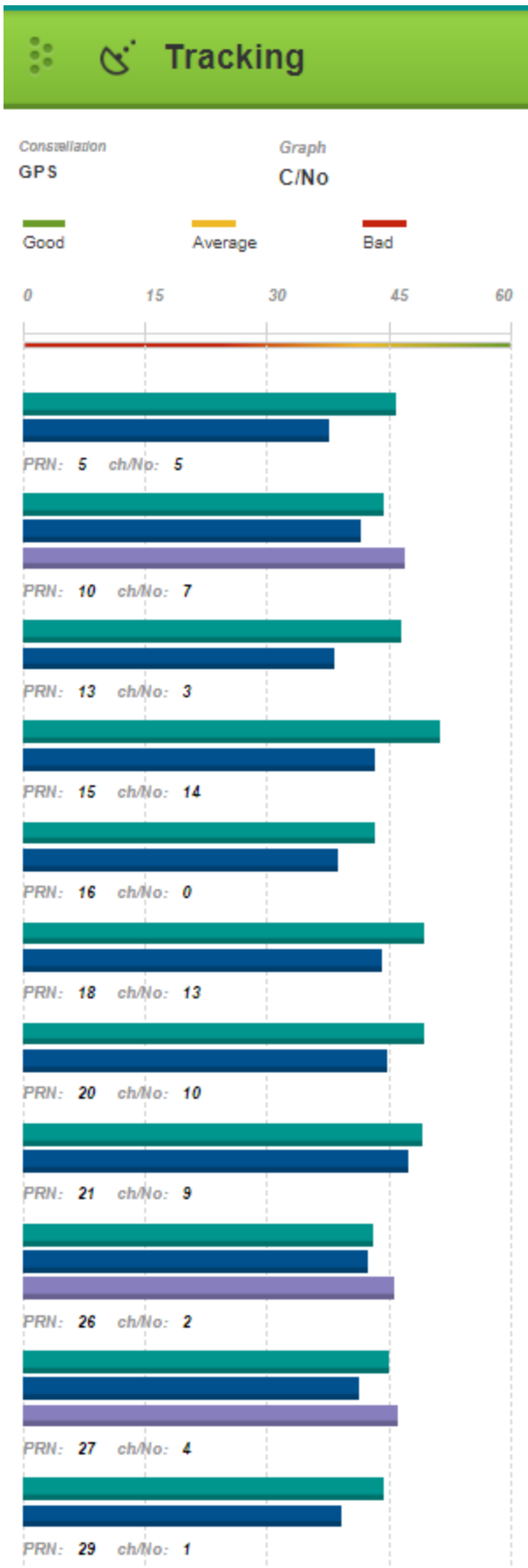
Once settings selected, press the **APPLY** button to save the changes or **CANCEL** return to previous settings.

3.3 Tracking Tab

Use the Tracking Tab to display signal channels status and modify what is displayed.

3.3.1 Tracking Status Window

The Tracking Tab to displays tracking information for signal channels in graphical and text format.



3.3.2 Tracking Configuration Window

Use the Tracking Configuration Window to select a Constellation and define what the Tracking Status Window displays.

- C/No (Carrier/Noise Ratio) - displays the strength of the signal
- PSR (Pseudorange) - displays the distance to the satellite from the antenna
- Doppler - displays the Doppler values
- Residual - displays the Pseudorange residual values
- Lock Time - displays the time the receiver has continuously tracked the signal



Constellation

GPS

Graph

C/NO

CANCEL APPLY

The form contains two dropdown menus. The first is labeled "Constellation" and has "GPS" selected. The second is labeled "Graph" and has "C/NO" selected. Below the dropdowns are two buttons: "CANCEL" (grey) and "APPLY" (blue).

Once settings selected, press the **APPLY** button to save the changes or the **CANCEL** button to return to previous settings.

3.4 Port Tab

Use the Port tab to view and change port settings.

3.4.0.1 Port Status Window

The screenshot shows a web interface for port management. At the top, there is a green header with a menu icon, a USB icon, and the word "Port". Below the header, the interface is divided into two sections: "Active Ports" and "Inactive Ports".

Active Ports


	Port	Rx Chars	Tx Chars
	COM1 Expand ▼	0	94322
	COM2 Expand ▼	0	94328
	COM3 Expand ▼	0	94328

Inactive Ports

	Port	Rx Chars	Tx Chars
	COM4	0	3876
	COM5	0	0
	ICOM1	0	0
	ICOM2	0	0
	ICOM3	0	0
	USB1	0	0
	USB2	0	0
	USB3	0	0

To view the logs that are being sent to a port, click the **Expand** drop list below the port name.

Active Ports

	<i>Port</i>	<i>Rx Chars</i>	<i>Tx Chars</i>
	COM1	0	453222
	Collapse ▲		
	<u>Log Name</u>		
	BESTPOSA		

3.4.1 Port Configuration Window

Use the Port Configuration Window to define the COM Port to use, configure the Interface Mode and configure the selected port.

Refer to the SERIALCONFIG command and Table: Serial Port Interface Modes in the INTERFACEMODE command.

Port Configuration

Port

COM1

Interface Mode

Rx: NOVATEL

Tx: RTCMV3

Response: ON

Port Configuration

Baud: 9600

Parity: N

Data Bits: 8

Stop Bits: 1

Handshake: N

Echo: OFF

Break: ON

CANCEL APPLY

Select a Port, configure the Interface Mode and define the port configuration using the drop menus.

Once settings selected, press the **APPLY** button to save the changes or the **CANCEL** button to return to previous settings.

3.5 Logging Tab

Logs are the mechanism used to extract information from the receiver. Use the Logging Status Window to display current logging activity and settings. Use the Configuration Window to select and edit logs, view file information, start/stop logging and define how logged files are stored. The [Terminal on page 12](#) can also be used to log data. File names are automatically generated.

3.5.1 Logging Status Window

Display the logging status, a list of the active logs as well as file, destination and storage information.



Log Status

Logging

Active Logs

COM1 BESTPOS ASCII ONTIME 1

Filename

File Size

0 B

<i>Log Destination</i>	<i>Log Rotation</i>
INTERNAL_FLASH	0
	GNSS Timestamp Enabled



Log Status

Not Logging

Active Logs

None

3.5.2 Logging Configuration Window

Use the Logging Configuration Window to add or edit logs as well as select the storage location and file rotation option.

Logging Configuration

Log
Edit Logs

Log	Format	Trigger	Period	Destination
X BESTPOS	ASCII	ONTIME	1	COM1

Add Logs

File Name

NMNE17200009B_1.LOG

File Size

0 B

File Destination

INTERNAL_FLASH

File Rotation

NONE

STOP

File Destination

Define how the logging files are stored using the drop menu:

- to the receivers internal memory

File Rotation

If the file duration is selected from the drop menu, the log file is closed at the specified amount of time and a new log file is created.

Add Logs

Click the **Add Logs** button to display the lists of logs. Click the Tabs at the top of window to select grouped lists.

×

Add Logs

×

Presets
Position
Tracking
Others

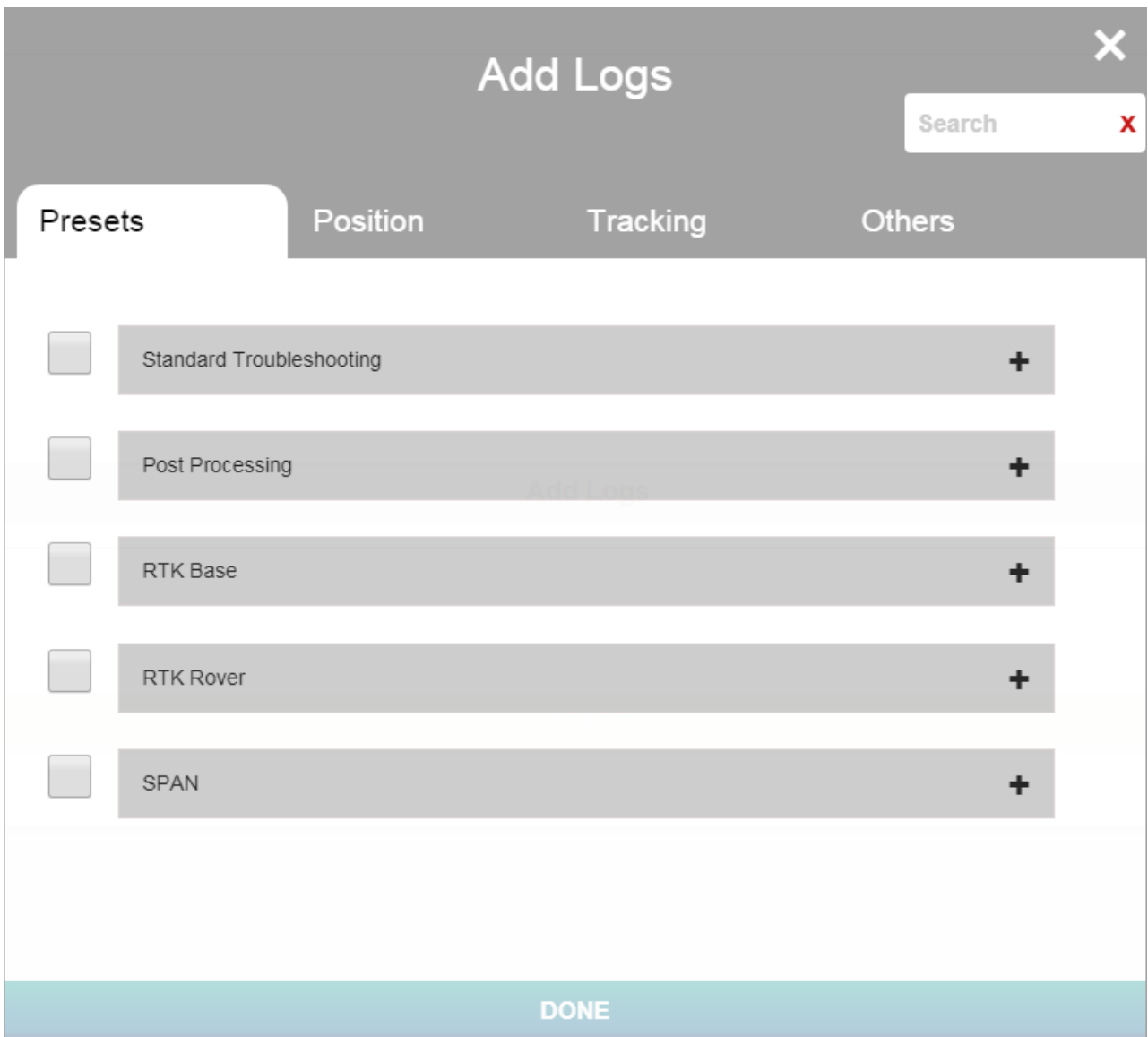
Log	Format	Trigger	Period	Destination
<input type="checkbox"/> ALIGNBSLNENU	ASCII ▼	ONCHANGED ▼	1	COM1 ▼
<input type="checkbox"/> ALIGNBSLNXYZ	ASCII ▼	ONCHANGED ▼	1	COM1 ▼
<input type="checkbox"/> ALIGNDOP	ASCII ▼	ONCHANGED ▼	1	COM1 ▼
<input type="checkbox"/> AVEPOS	ASCII ▼	ONCHANGED ▼	1	COM1 ▼
<input type="checkbox"/> BASEANTENNAIN	ASCII ▼	ONCHANGED ▼	1	COM1 ▼
<input type="checkbox"/> BASERANGE	ASCII ▼	ONCHANGED ▼	1	COM1 ▼
<input type="checkbox"/> BESTGNSSPOS	ASCII ▼	ONTIME ▼	1	COM1 ▼
<input type="checkbox"/> BESTGNSSVEL	ASCII ▼	ONTIME ▼	1	COM1 ▼

DONE

Click the check box beside the log icon to select a log . For each log, the following parameters can be set:

- **Format**
Select the format, ASCII or Binary, in which the log is generated.
- **Trigger**
Select what causes the log to be collected.
- **Period**
If the ONTIME trigger is selected, enter the time interval between logs collected.
- **Destination**
Select the communication port the log is sent to.

The Presets tab contains a groups of logs typically used for that function. To view the logs within the preset, click the **+** icon. Click the **-** icon to close the list. Selecting a Preset adds all of the logs within the Preset. Multiple presets can be selected.

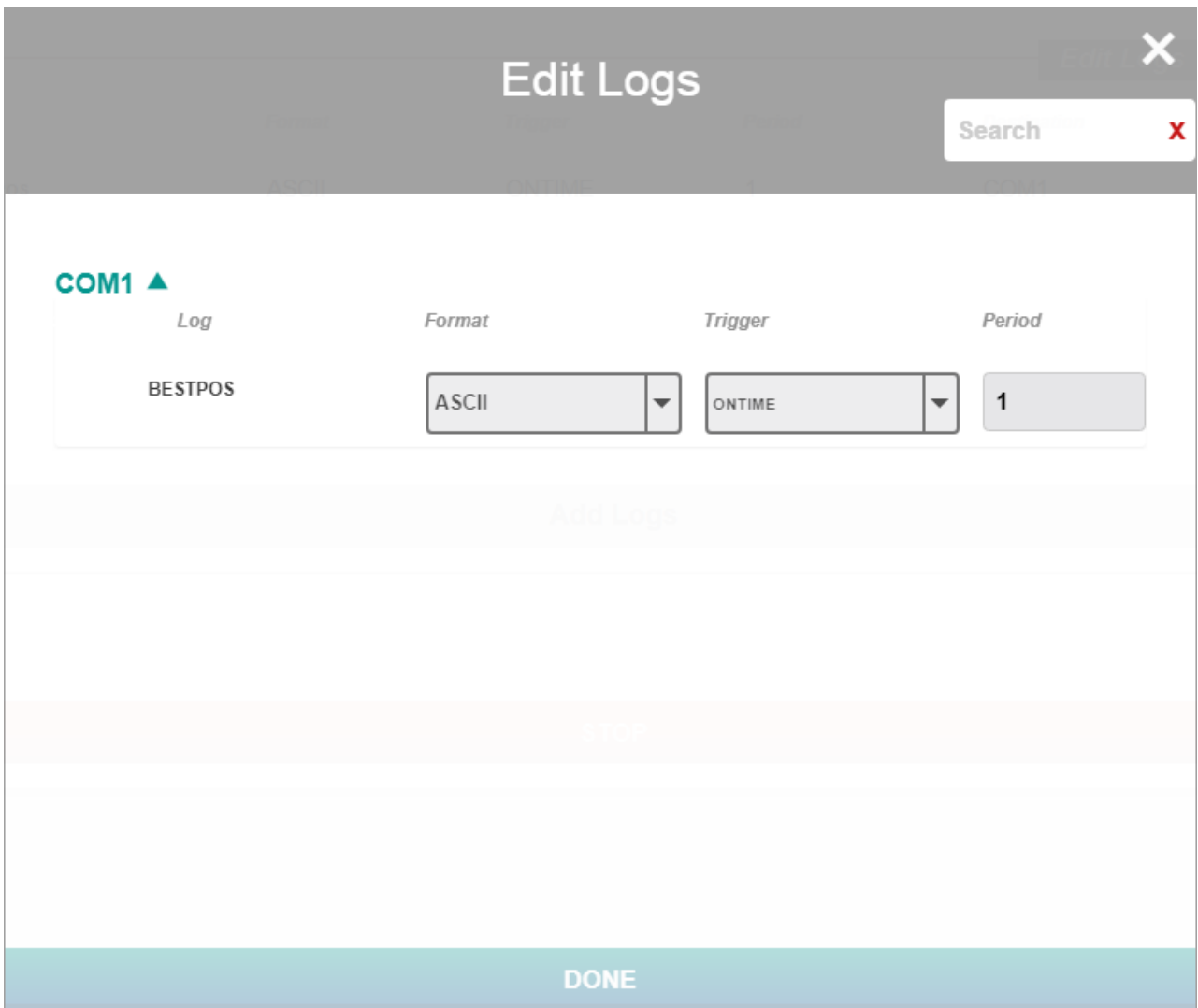


Press the **X** icon to return to the main Logging Configuration Window without Adding a log. Press the DONE button to apply changes and Add logs.

3.5.3 Edit Logs

Edit logs to change the ASCII or Binary setting and select a trigger. If the ONTIME trigger is selected, enter a value in the Period field.

Refer to the LOG command for a the ASCII and Binary trigger definitions.



Press the icon to return to the main Logging Configuration Window without editing a log. Press the **DONE** button to apply changes.



When memory is full, logging stops. Use the command line to define the **OVERWRITE** option. Refer to the **FILEROTATECONFIG** command for details.

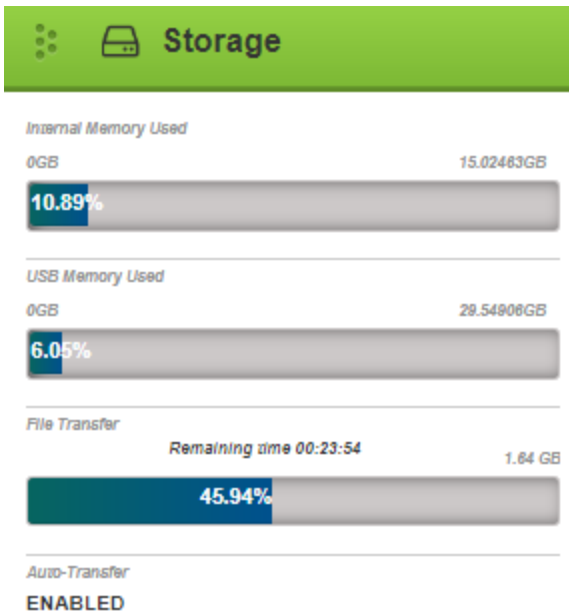
3.6 Storage Tab

Use the Storage Tab to manage how logged files are stored, moved, copied and downloaded.

View the storage type(s) selected in the Status Window and configure how files are managed in the Configuration Window.

3.6.1 Storage Status Window

The Status Window displays the options selected. A progress bar displays the percentage of memory used for the USB stick memory and the internal memory of the receiver and if the auto-transfer feature is enabled. A progress bar also displays during the File Transfer process.



3.6.2 Storage Configuration Window

Use the top button to select Internal (click left) or USB (click right) and configure how logged files are stored and downloaded:

- to the receiver's internal memory
- to a mounted USB memory stick formatted as FAT32



The file destination can also be defined as USB or Internal under the Logging Tab (File Destination).

3.6.2.1 Internal Memory

Storage Configuration

Internal USB



Log file is open. Default Media Device cannot be changed.

File List 🔄

NMNE172000096_2017-09-11_20-25-53.LOG	20.84323MB
NMNE172000096_2017-09-11_17-48-51.LOG	0.00921MB
NMNE172000096_2017-09-11_17-48-30.LOG	0.00000MB
NMNE172000096_2017-09-11_17-31-02.LOG	0.00012MB
NMNE172000096_2017-09-11_13-38-20.LOG	0.00000MB
NMNE172000096_2017-09-11_09-38-20.LOG	0.00000MB
NMNE172000096_2017-09-11_05-38-20.LOG	0.00000MB
NMNE172000096_2017-09-11_01-38-20.LOG	0.00000MB
NMNE172000096_2017-09-10_21-38-19.LOG	0.00000MB
NMNE172000096_2017-09-10_17-38-19.LOG	0.00000MB

PREVIOUS 1 NEXT

File Management

DOWNLOAD DOWNLOADALL

Copy to USB

COPY COPYALL

Move to USB

MOVE MOVEALL

Auto-Transfer to USB Stick

Disable Copy Move

3.6.2.2 USB Selected

Storage Configuration

Internal USB

Log file is open. Default Media Device cannot be changed.

File List	
NMNE17200009B_2017-09-11_20-25-56.LOG	0.00707MB
LOST_DIR	0.00000MB
NMNE17200009B_1.LOG	0.06837MB
NMNE17200009B	0.00000MB

PREVIOUS 1 NEXT

File Management

DOWNLOAD DOWNLOADALL

Auto-Transfer to USB Stick

Disable Copy Move

Use the **PREVIOUS** and **NEXT** buttons to move through the File List by page. Use the center drop menu to select a page number.


3.6.2.3 File Management

Files can be downloaded to the receiver or copied or moved to memory stick. Click to select files from the File List; select multiple files by holding the **SHIFT** key while selecting files.

DOWNLOAD and **DOWNLOADALL** buttons – Download selected or download all logged files to computer or mobile device. Browser FTP permissions must be set.

COPY and **COPYALL** buttons – Copy selected or copy all logged files to a memory stick. A progress bar and Cancel button display during copying. Copied logs remain in the receiver File List.

MOVE and **MOVEALL** buttons – Move selected or move all logged files to a memory stick. A progress bar and Cancel button display during moving. Moved logs are removed from the receiver File List.

Click the  icon to refresh the file list.



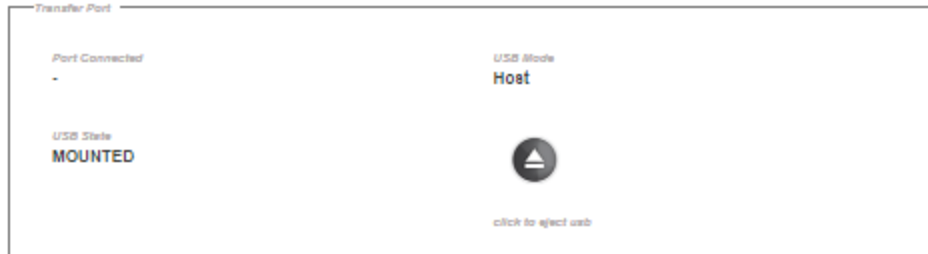
We have found two problems in the Microsoft® FTP clients contained within the Internet Explorer® and Edge browsers which make them unsuitable for retrieving files from a NovAtel receiver. When using a Windows® computer to transfer files off a NovAtel receiver, we suggest using a 3rd party FTP client.


3.6.2.4 Auto-Transfer

Click a radio button to define how logged files are automatically managed. Select Disable, Copy or Move files (files are retained in the File List using COPY; removed from list using MOVE). Click Disable to disable auto-transfer.

3.6.2.5 Transfer Port

The transfer port setting changes when a USB stick ejected. Click the Eject button and remove the stick.



The USB memory stick must be formatted as FAT32. Use the Eject button  to unmount a memory stick. Ensure the receiver has stopped logging before removing a memory stick.

3.7 ALIGN Tab

ALIGN technology combines position information from two receivers, or a dual antenna receiver, to generate high precision heading and pitch angles between two GNSS antennas. The ALIGN tab is used to display the ALIGN the data and configure the ALIGN settings.



The Web UI supports dual antenna receivers only.

3.7.1 ALIGN Status Window

Use the ALIGN Status Window to view the current ALIGN data.



Align System

Dual Antenna Setup

Heading

114.66394043

Pitch

-0.62167358

BaseLine Length

9.16076756

Solution Status

SOL_COMPUTED

Position Type

NARROW_INT

Heading Standard Deviation

0.02900356

Pitch Standard Deviation

0.03300712

3.7.2 ALIGN Configuration Window

Use the ALIGN Configuration Window to configure the ALIGN settings.



HeadingOffset

<i>Heading Offset</i>	<i>Pitch Offset</i>
<input type="text" value="0.0000000"/>	<input type="text" value="0.0000000"/>

Observation-Rate

Position-Rate

Heading and Pitch Offset

Use the Heading Offset and Pitch Offset fields to enter offset values for heading and pitch. The offset values are used in the HEADING2 log and GPHDT log. Refer to the HEADINGOFFSET command for more information about these parameters.

Data Rates

Use the Observation-Rate and Position-Rate fields to select the rate at which ALIGN information is provided.

3.8 SPAN Tab

The SPAN Tab is used to view the current status and configure the IMU used, the rotation and translation for a primary antenna as well as a secondary (if required) and set an alignment mode.



Not all SPAN functionality is available using the Web UI. Refer to SPAN Operation section for instructions on using the command line to configure SPAN functionality not covered in this topic.

3.8.1 SPAN Status Window

Use the SPAN Status Window to view the current status including position, velocity and attitude of the IMU.



Status

WAITING_AZIMUTH

Position

Latitude

51.11679431°

Longitude

-114.03885952°

Height

1045.25255505

Velocity

North Velocity

0.00521761 m/s

East Velocity

0.01145441 m/s

Up Velocity

0.00422049 m/s

Attitude

Roll

-0.37549109

Pitch

1.16259676

Azimuth

0.00000000

3.8.2 SPAN Configuration Window

SPAN technology combines GNSS and INS into one system to offer a solution that is more accurate and reliable than either GNSS or INS can provide alone. Refer to OEM7 SPAN Overview for a SPAN overview and details regarding SPAN configuration.

SPAN Configuration

IMU

IMU Type: EPSON CS20 Port: SPI

INS ROTATION

Rotation
IMU Body to Vehicle

X: 0.000 X0: 3.000

Y: 0.000 Y0: 3.000

Z: 0.000 Z0: 3.000

INS TRANSLATION

ANTENNA 1

X: 0.000 X0: 0.050

Y: 0.000 Y0: 0.050

Z: 0.000 Z0: 0.050

ANTENNA 2

ALIGNMENT MODE

Alignment: AUTOMATIC

Azimuth: 0.000000 Standard Deviation: 1.000000

CANCEL APPLY

IMU

Use the drop menus to select the IMU and the Port it will use. If using the PwrPak7-E1, do not change the default IMU type.

INS Rotation

Use this section to enter the rotational offset from the IMU body frame to the vehicle frame (RBV). Refer to SETINSROTATION command for explanations of other Rotational Offset Types available using the command line.

INS Translation

Use this section to enter the translational offset (or lever arm) from the IMU center of navigation to the phase center of the primary GNSS antenna, as measured in the IMU frame.

Check the Antenna 2 checkbox to enter an offset to a secondary GNSS antenna. This information is only required when using SPAN with Dual Antenna. Refer to the SETINSTRANSFORMATION command for explanations of other Translation Offset Types available using the command line.

Alignment Mode

Set the Alignment Mode to define the method used to initialize the SPAN system.

Refer to the ALIGNMENTMODE command for the mode definitions.

Once settings selected, press the **APPLY** button to save the changes or the **CANCEL** button to return to previous settings.

