Home Page

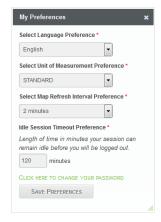
Top Bar

At the top, right-hand corner of the Home page, when logged into the Slingshot site, the user will see the name on the account, a Preferences link, and a Logout link.



Preferences

The Preferences link will display the following user options. These may be changed by the user at any time.



Language

Select the preferred language.

Unit of Measurement

Choose from either Standard or Metric units.

Note: This setting does not change the units on files not owned by the user.

Map Refresh Interval

This is the refresh rate of the map on the Home page that displays the position of Base Stations and Field Hubs owned by the user.

Idle Session Timeout

This controls when the user will automatically be logged out after a set amount of inactive time (in minutes).

The preferences window also includes a link for changing a password.

Note: Be sure to select the **Save Preferences** button at the bottom to save any changes. Selecting the "X" in the top right corner will exit the window and cancel any changes.

The top bar also includes 3 menu options: Home, Manage, and Share. Selecting Home from any page will return users to the Home page. Manage and Share are detailed in later sections.

Systems

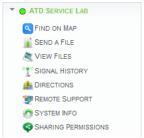
Field Hubs (systems) will be displayed along the left side of the Home page. The company name will be displayed at the top of the Systems area. Each Field Hub (system) will be displayed under the company name in order by Field Hub ID number, then alphabetically according to the common system name.

Users can search systems based on the Field Hub ID or the system name at the top of the Systems area.

The common name is displayed along with the status of the Field Hub:

- Online and reporting a GPS position
- Online but not reporting a GPS position
- Offline

Users can select the common name of the Field Hub to display the following options:



Find on Map

Zoom the map to the physical location of the Field Hub.

Send a File

Send a file to the system. Refer to the **File Manager Buttons** section on page 11 for more information.

View Files

View a list of recent files sent to or received from the system. This option only appears for systems capable of receiving files.

Signal History

Generate a signal history map. Refer to the **Telematics Tab** section on page 8 for more information.

Directions

This link will open the location of the system in Google Maps, and will allow the user to enter a starting place to obtain directions to the location of the Field Hub.

Remote Support

Select the link to start a remote support session (remote support must be enabled on the field computer in order for this link to work. For more information about remote support visit the Knowledgebase Articles on www.RavenHelp.com

Note: A remote support code is not needed if the remote support link is used. If the user navigates to Manage > Remote Support, a remote support code is needed from the field computer.

System Info

View and update system information.

Sharing Permissions

Allows an administrator to share the system (with certain permission sets) with Field Hub share groups that have been created previously. For more information on share groups and options, visit the Knowledgebase Articles on www.RavenHelp.com.

The Field Hub ID number and the date/time stamp for when the Field Hub was last online are displayed at the bottom of the list.

Map



The map displays the last known position of each Field Hub based on the GPS position reported by the Field Hub to the Slingshot page.

The buttons in the upper right corner of the map allow users to configure the map in the following ways:

View Full Page

Opens a new tab/window with a full view of the world. Check boxes determine what will show on the map. They include:

Base Radius

Displays the signal radius of each Base Station (30 mi [48 km]).

Baselines

- Displays a straight line between a Base Station and its associated Field Hubs.
 Field Hubs
- Displays the company's Field Hubs.

Map / Satellite

Used to toggle the map view between a street map (option to view with or without terrain) and a satellite view (option to view with or without labels and roadways).

Select any Field Hub bubble to see more details about that Field Hub including:



- Field Hub ID
- Field Hub status
- · Latitude and longitude
- Speed
- Subscriber (company that owns the Field Hub)
- Last GPS time stamp
- · Direction the unit is traveling (degree heading)

There are 3 links for more information on the Field Hub:

Historical Map

The Historical Map link will open a new window with a slider bar at the top of the page. Choose a date on the left side and slide the bar to any 3-hour increment on the map (then select **Refresh** on the right side) to see 30-second reports of the Field Hub for that 3 hour window. Each map dot is numbered in the order that the reports were received by the Slingshot site.

System Info

The System Info link is used to view and edit system information. Refer to the **Field Hubs** section on page 6 for more information.

Signal Strength Map

The Signal Strength Map link will take the user to another window to generate a (cellular) signal history of the Field Hub for specified dates. This process is described under the **Telematics Tab** section on page 8.

Base Stations

Base Stations owned by the company are also displayed on the Home page map with a triangular symbol to show their position and status. The Base Station name appears at the top. Below that is the Base Station ID number.

The status of the base will display red, yellow, or green.

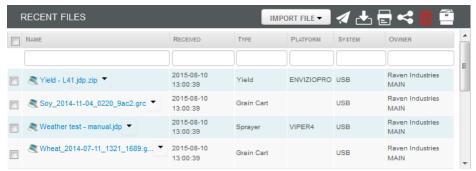
- Running on both internet connections
- Running only on one internet connection
- Offline

Both Internet connections, WAN 1 and WAN 2, will also display green (online) or red (offline).



The dealer that sold the Base Station will display in this window as well as the commissioned date (the date and time the last 24 hour survey was completed). The position of the Base Station in latitude and longitude displays in the pop-up, along with the last update that was received from the Base Station.

File Manager



A basic file manager is displayed along the bottom of the screen below the map. Users can import and send files from this page as well as download, view, share, and delete any files that are displayed on the Home page. The Home page only displays the most recent file activity.

The File Manager button will navigate users to the File Manager screen. Refer to the **Files** section on page 10 for more information.

Manage

The Manage menu includes several options as described below for the user to navigate to different areas of the website.

Field Hubs

This page will display all Field Hubs owned by the user and shows the status of each Field Hub as well as the following information:

Online Status

- Online and reporting a GPS position
- Online but not reporting a GPS position
- Offline

Field Hub ID

This is the number used to activate the Field Hub with a cellular data plan as well as used by the Slingshot NOC to troubleshoot any issues.

Select the Field Hub ID number to see the following telematic information:

Events

- 30 Field Hub is powered on.
- 17 Field Hub has reported a "powered off" event.
- 16 Field Hub has reported a "powered on" event.

Ignition (IGN)

- 1 Ignition On
- 0 Ignition Off

Latitude, Longitude, and Altitude

Reported based on the GPS receiver inside the Field Hub.

MPH/KPH and Direction (DIR)

Speed and heading (in degrees).

RSSI - Cellular Strength

The cellular signal's strength ranges from 0 to -125 with 0 being the best signal possible.

Signal Range	Functionality
0 to -100	Field Hub should function at optimum performance.
-100 to -110	Field Hub will still work properly and RTK corrections should continue to stream as normal, but files may take longer to transfer.
-110 to -125	Field Hub will struggle to keep consistent signal and files may or may not transfer. RTK corrections can be affected.

Service Type

HSPA +, HSPA, EVDO.A, etc.

Cellular Carrier

Cellular network provider name.

Roam

- 1 Yes
- 0 No

GPS Time and Server Time

Compare the two to see if the GPS time and the server time of the reports are close to the same time. If the time frame between the two has a large gap, there may be issues with the cellular signal.

Battery

Voltage reported by the Field Hub.

• The Field Hub can operate from 8-30 volts DC.

IP

Field Hub IP address.

Owner

Name of company that owns the Field Hub.

Map

A link to the physical location of the Field Hub on Google Maps.

System Name (Common Name)

The system name can be anything and may be changed by the administrator of the account. This is used to distinguish between multiple systems.

Owner

Name of company that owns the Field Hub.

Dealer

Dealer that sold the Field Hub.

Correction

Correction source and RTK protocol type.

The correction will only be populated if there is an RTK or Slingshot GS correction source assigned to the Field Hub. If using an RTK correction source, either the associated Base Station ID or CORS network will display.

Last Reported

Date and time of last report to the Slingshot server from the Field Hub.

Update Icon 📝

A user can update and view features of the Field Hub by selecting the Update icon. There are several tabs in the edit screen with several features and options on each tab.

Field Hub Tab

Field Hub ID, IP address of the Field Hub, the Field Hub model, the warranty expiration date of the Field Hub, the phone number associated with the data plan of the Field Hub, and the company that owns the Field Hub are all displayed in the Field Hub tab. The System Name can be changed here.

7

Field Computer Tab

Note: The Field Computer tab will only display if a field computer has been registered with the Field Hub to the Slingshot website.

For information on the registration process visit the Knowledgebase Articles on www.RavenHelp.com.

Field Hub model, software version, agX enabled (Yes or No), last reported time and date from field computer, and job status from when it last reported.

Correction Profiles Tab

The Correction Profiles tab will only display if the correction unlock has been purchased for the Field Hub.

Users can choose any correction profile that exists.

 The correction profiles must be created by a dealer. Then, users can switch between correction profiles.

Baselines Tab

Displays the distance of the Field Hub from the Base Station, Base ID number, common name, position of the Field Hub, and whether it is currently assigned to the correction source. This tab will display all Field Hubs that have previously been connected with the Base Station.

 The baseline distance only works with Raven Slingshot Base Stations, not with any third party networks (CORS).

Features Tab

Displays all features that are unlocked on the Field Hub.

Renewable features are able to be renewed here via the Renew button.

Note: The Renew button only appears when the subscriptions are close to expiring. Once the expiration date has passed, the features will need to be purchased through a dealer or through the E-Commerce Store, (if applicable).

Telematics Tab

Displays the current telematics information of the Field Hub, as long as the Field Hub has a GPS position fix based on the small patch antenna connected to the back of the Field Hub.

The View Last Reports link works exactly the same as selecting the Field Hub ID number link.

The Signal Strength Map link will open a small pop-up window that will allow the user to choose any Field Hub along with a start and end date to generate a (cellular) signal strength history map.

Note: The Signal Strength Map link generates a Google Earth file. Because of this, the computer being used must have Google Earth installed. There is a link in the pop-up window to take users to the Google Earth download page if needed.

View Location on Map Icon 🏝

Select the icon to see the position of the Field Hub in Google Maps.

Base Stations

The Base Station management page allows a user to see the status of the Base Station as well as the following information:

Online Status

Running on both internet connections

Running only on one internet connection

Offline

Base Station ID number

IMEI/ESN

Modem ID number of the backup modem that is in the Base Station.

Name (Common Name)

Name given to the Base Station. This can only be edited by the administrator(s) of the Base Station.

Model

Displays the model of the Base Station.

- DL-V3 (1st Generation Base Station)
- NB-DL-V3 (1st Generation Base Station Updated to Dual-Stream Capabilities)
- SBS 2.0 (2nd Generation Base Station)

Owner

Name of company that owns the Base Station.

WAN 1

Main Ethernet connection status.

WAN 2

Backup modem Ethernet status.

WMS Expiration Date

WMS licenses are required to be purchased once per year. The WMS (Wireless Management System) license is the subscription that the Base Station owner pays to keep the Base Station online and running to output RTK corrections.

Update Icon 🥕

Allows the user to see all details available for the Base Station. There are 3 tabs in the Update screen.

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Base Station Tab

The name of the Base Station.

Base Type - Important for troubleshooting and setup.

Base ESN/IMEI - Important for troubleshooting and setup.

Settings & Configuration

- Reduced RTK Detection Setting which will throttle the system's RTK output down when there are no Field Hubs requesting RTK corrections. Helps with data usage.
- On-Demand RTK Setting which will throttle the system's RTK output back up
 to full output of corrections when any Field Hub is detected to be powered on
 and requesting RTK corrections from that Base Station.

Auto Notify

• Setting which sends the administrator(s) of the account an email if there is a status change to the Base Station (offline, etc.).

Owner - Displays the owner of the Base Station.

Licenses Tab

Displays the type of WMS license (1st Generation or 2nd Generation).

Displays the "valid from" and "valid to" date of the license, and whether the license is currently active or not.

Displays the last time any alerts were sent about WMS license expiration.

Assigned Field Hubs Tab

Displays all Field Hubs that are currently assigned to receive RTK corrections from the Base Station including:

- · Device ID
- · Name of the Field Hub system
- · The baseline distance of the Field Hub from the Base Station
- The latitude and longitude of the Field Hub GPS position
- Whether the Field Hub is currently active or not

Files

The File Manager page will display all options and features that can be performed with all Slingshot files. Any files that are loaded into the Slingshot account are shown here. Files that are sent from a field computer as well as files that are imported to send out to a field computer all appear in the same file list. All files are automatically sorted by the month they are loaded into the website. The system automatically creates a new folder for the month on the first day of each month.

Inbox

The Inbox (with sub-folders) is displayed along the left side of the window. The Inbox will show sub-folders of each year that the account has been active, and under each year there are sub-folders arranged by month. This is the default view of the File Manager.

Select the month sub-folder to view files. All files processed during the month will appear in the middle of the screen.

Files are always loaded into the current month folder. Users have the ability to move these files as desired.

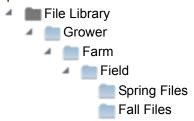
Shared with Me

The Shared with Me folder contains any files that have been shared with users via the File Share feature. Refer to the **Shared With Me** section on page 18.

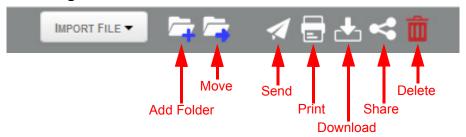
File Library

The File Library is used to keep files in specific folders. Create new folders by using the Add Folder button at the top of the page. Users can move files from the Inbox to any folders created under the File Library.

Users can create sub-folders within each folder so the folder structure can be as complex as desired.



File Manager Buttons



There are several buttons along the top of the file manager page.

Import File

Used to import files to specific libraries. The following options are available:

My Library

Imports the file into the specific user account.

(Company Name) Library

Imports the file into the company's file library so that any employee or user attached to that company can see the file.

Add Folder

Adds folders to the File Library. Each folder can be named, files can be added or deleted, sub-folders can be added, the folder can be moved to a different location under the library, and the folders can be deleted.

Move

Allows users to choose one or more files to move to a different folder under the File Library.

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Send

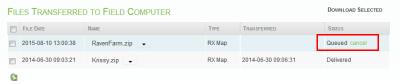
Used to send Rx Maps to a field computer. There are two ways to send a file.

- Choose the file to send from the File Library by placing a check mark in the box next to the file, then select the **Send** button. The Send Files to Field Computer window will display and users can choose which field computer(s) to send the file(s) to.
- 2. Without placing a check mark next to a file, select the **Send** button and the Send Files to Field Computer window will display. This window allows users to choose files that are in the File Library and choose which field computer(s) to send the file(s) to.

Also contains a link to upload new files to the library. Select the link to browse the computer to import a new file to send to a field computer. After the files have been uploaded into the library, they can then be sent to the field computer(s).

 Multiple files can be sent to multiple field computers, if desired, in the same instance.

Users can cancel the sending of a file by selecting the Field Hub from the Home screen, then selecting **View Files**. The option to cancel will only be available until the file leaves the queue and is sent to the field computer (usually 1-2 minutes).



Print

Allows users to choose files to view or download as a PDF file and then print the job report from a PDF file viewer. Select more than one file to print a single PDF file containing multiple files.

Download

Allows the user to download and save one or more files in three possible formats and then send them to the Download Manager. Refer to the **Download Manager** section on page 16 for more details.

- · Original Job File
- PDF
- Shapefile
- Also can download all three file types.

Place a check in the box next to the desired files for download prior to selecting the Download button.

Share

Allows users to share one or more files with a File Share Group that has been previously created.

Delete

Allows a user to choose and delete one or more files.

Important: Files that have been deleted from the Slingshot website are not recoverable. The deleted files are not backed up anywhere in the Slingshot system and cannot be restored. Make certain the file that is to be deleted is no longer needed.

Inbox File Functions

When a certain folder is chosen in the file manager, all files in that folder are displayed in the middle of the window.

The user can utilize the "Search All Files" box towards the top of the file manager or files can be searched based on the file name, date received, file type, system name, or the file owner in the individual search boxes above each heading.

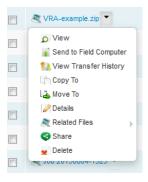
Note: The search function only searches the active folder (the folder that is highlighted on the left side of the screen).

Users can choose which columns will display in the File Manager. By right-clicking on the column headings, a checklist will display the following column options:

- Name (Cannot Be Disabled)
- Date (When It Was Received)
- File Type (Job Type)
- Platform (Field Computer Type)
- System
- Grower
- Farm
- Field
- Owner

To view a file, select the link that displays as the job name.

For more options, select the down arrow to the right side of the file name. The following options will display:



View

Opens the file in the internet browser.

Send to Field Computer

Only available for Rx Maps.

View Transfer History

Displays the transfer history between the Field Hub and the field computer. Also displays the date/time when the file was uploaded to the website.

Copy To

Save a copy of the file in a folder under the File Library.

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Move To

Move the file to a folder under the File Library.

Details

View the file details (size, date, etc.). Users can change the name and description of the file

Related files

View and download any related files available.

Share

Share the file with a File Share Group.

Delete

Delete the file from the account.

Important: Files that have been deleted from the Slingshot website are not recoverable. The deleted files are not backed up anywhere in the Slingshot system and cannot be restored. Make certain the file that is to be deleted is no longer needed.

Folder Creation/Deletion and Moving Files

Creating Sub-Folders

Sub-folders can be created under the File Library in an account. The folders and files that are contained under the File Library are only viewable by the user of the account.

Folders and sub-folders can only be added under the File Library. Sub-folders cannot be added to year or month folders under the Inbox.

To create a sub-folder under the File Library, select the **Add Folder** button. Give the folder a name (e.g. Folder 1) and then select **Add**.

To add a sub-folder to any existing folder under the File Library, highlight the folder and then select the **Add Folder** button. Give the sub-folder a name (e.g. Folder 2) and then select **Add**.

The folders should display as shown below:

- File Library
 - Folder 1
 - Folder 2

Moving or deleting files

To move a file to a sub-folder:

- Use the down arrow menu beside the file and choose the Move To option. Then
 select the desired folder to move the file.
 - -or-
- Place a check mark in the box to the left of the file to be moved, then select the Move button at the top of the File Manager. Then select the desired folder to move the file.

To delete files, select the folder where the file is stored then do the following:

- Select the down arrow menu and select the **Delete** option.
- Place a check mark in the box to the left of the file to be deleted, then select the Delete button at the top of the File Manager.

Important: Files that have been deleted from the Slingshot website are not recoverable. The deleted files are not backed up anywhere in the Slingshot system and cannot be restored. Make certain the file that is to be deleted is no longer needed.

To move a created folder to a different position, select the parent folder. The folder should now appear in the file manager in the middle of the window. Select the down arrow next to the folder and choose the **Move To** option. Select the new parent folder to finish moving the folder.

Example using the file structure above:

- 1. Select Folder 1.
- 2. Select the down arrow next to Folder 2 and choose **Move To**.
- 3. Select File Library.

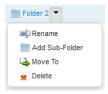
The folders should now display as shown below:

File Library
Folder 1
Folder 2

To delete a folder, select the parent folder then select the down arrow next to the desired folder. Then select the **Delete** option.

Folder Down Arrow Menu

Each folder has a down arrow menu with the following options:



Rename

Rename a folder at any time.

Add Sub-Folder

Add a sub-folder to the current folder.

Move To

Move the folder to a different parent folder.

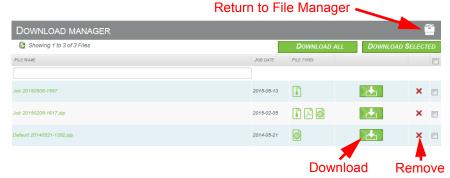
Delete

Delete the folder and its contents.

Download Manager

Allows a user download any files from the file library. Any combination of files and file types can be added to the Download Manager.

Once files have been sent to the Download Manager, they will stay in the Download Manager until the user either downloads or removes them from the queue.



When multiple files are selected for download, the Download Manager will place all of the files in a single zipped folder. Within the zipped folder will be individual folders for each of the files.

Remote Support

Remote support can be used when a field computer is connected to a Slingshot Field Hub and setup properly in the Slingshot system.

Anyone with a Slingshot username can perform remote support as long as the user has the remote support code from the field computer and the remote support function has been enabled on the field computer.

For more information about remote support, see the Knowledgebase Articles on www.RavenHelp.com.

Client Information

The main Client Information page will display the name of the company, location, main email address associated with the account, administrator(s) of the account, and relationship(s) of the account.

The main Client Information page will also display how many Field Hubs, Base Stations, and API access keys are owned by the company as well as the number of files in the account.

To see more information, or to edit the Client account, select the View icon ().

The additional Client Information page displays the company name along with the unit of measurement preference of the company. This unit of measurement should match the field computers being used as well as the preference of user accounts to ensure that the field computer job reports stay consistent when imported into the Slingshot website.

Account information is displayed and some attributes can be edited by the administrator(s) of the account.

Contact Numbers Addresses Email Addresses Employees
Field Hubs Access Groups Add Employees

Contact information

Contact Numbers

Multiple phone numbers can be added as well as labeled (work, home, etc.).

Addresses

Multiple addresses can be entered, if desired.

Email Addresses

Multiple email addresses can be added with at least one of those being the primary email account. Emails are only sent to users when there is a need to communicate to users about changes, issues, etc. to the website.

Note: A user's contact information is not sold to any third parties or given out to anyone. It is private information of the user and is only used to process orders and for periodic communication.

Employees

Displays all current users who are linked to the company account as employees.

The administrator(s) of the account can edit the employee security roles, add new employees and users, edit users' information (Including the username), as well as remove an employee from the company's account.

To see the process of how to add new employees to an account and how to create a new account for an employee, visit the Knowledgebase Articles on www.RavenHelp.com.

Field Hub(s)

Displays the Field Hub ID, the common system name, the dealer that sold the Field Hub, and the correction source (if applicable).

The system information of the Field Hub can also be viewed and edited on this screen by clicking on the Edit icon (\nearrow) on the right side of the Field Hub.

Access Groups

Displays any Access Groups that have been created for Field Hub share purposes. New groups can be added as well as edited or deleted here.

For instructions on how to add, edit, delete groups, etc. visit the Knowledgebase Articles on www.RavenHelp.com.

Slingshot Link

This page displays all systems owned by the company along with details including the system name and the Field Hub that is attached to it.

This is also where the Over-The-Air-Updates for certain field computers can be performed.

For more information on Slingshot Link, visit the Knowledgebase Articles on www.RavenHelp.com.

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Share

API Access and Data Control

Share Groups

Displays any Share Groups (both for Field Hubs and files) that have been created by users.

Groups can be added, edited, deleted, etc. on this page.

Shared With Me

Displays any groups that users have been invited to join (and accepted).

Users can choose to remove themselves from groups at any time by selecting the red "X" to the right of group.

For instructions on how to create and manage file share groups visit the Knowledgebase Articles on www.RavenHelp.com.

API Keys

Users are able to create an API access key on this screen to use with an active API subscription.

For information on how to purchase API subscriptions and create API keys visit the Knowledgebase Articles on www.RavenHelp.com.

Purchase API Access

Users can purchase API access for Field Hubs by using this menu.

The link takes users directly to the E-Commerce store to purchase API access for any Field Hub.

For more information about API subscriptions visit www.RavenSlingshot.com/Products/Slingshot-API.