SKF @ptitude Analyst Thin Client Transfer

User Manual Part No. 32143800-EN
Revision E

User Manual

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SKF USA Inc.

Patents: US 4,768,380 • US 5,633,811 • US 5,679,900 • US 5,845,230 • US 5,852,351 • US 5,854,553 • US 5,854,994 • US 5,870,699 • US 5,907,491 • US 5,992,237 • US 6,006,164 • US 6,124,692 • US 6,138,078 • US 6,199,422 • US 6,202,491 • US 6,275,781 • US 6,301,514 • US 6,437,692 • US 6,489,884 • US 6,513,386 • US 6,633,822 • US 6,789,025 • US 6,792,360 • US 7,103,511 • US 7,697,492 • WO/2003/048714

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Table of Contents

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SKF @ptitude Analyst Thin Client Transfer Application

About This Manual

This manual introduces you to the SKF @ptitude Analyst Thin Client Transfer application. This manual pertains to both Thin Client Transfer File (CMSW 7320) and Thin Client Transfer Direct (CMSW 7321) products.

- Thin Client Transfer installation is detailed in the @ptitude Analyst Installation Manual. This manual assumes that the Thin Client Transfer is already installed.

User Manual Conventions

As you use this manual, you'll discover certain conventions used:

Bold type is used to indicate text that appears in a menu or data screen.

Italics are used to emphasize important information.

➢ - are used to indicate notes to the reader.

Step-by-step procedures are sequenced using bullets, •.

Product Overview

SKF @ptitude Analyst Thin Client Transfer (TCT) provides Data Acquisition services for remote workstations that do not require an @ptitude Analyst installation. Thin Client Transfer is a small application that deploys very easily and facilitates data transfer to and from Microlog Analyzer and MARLIN Data Acquisition Devices (DADs), without using the @ptitude Analyst interface.

The Thin Client Transfer has two modes of communication:

Direct communication with an @ptitude Analyst database – This method uses the SKF @ptitude Analyst Transaction Server to transfer data directly to / from the @ptitude Analyst database, bypassing the @ptitude Analyst application interface. This is primarily used for thin client network environments (e.g., a Citrix environment) or for clients on a network with low bandwidth (including satellite connections).

File Transfer – This method allows users to transfer data via a file, without requiring a direct connection between the Microlog Analyzer or MARLIN DAD and the computer hosting @ptitude Analyst. This is primarily used when data collection occurs at a remote location without an @ptitude Analyst installation.

Thin Client Transfer Licenses

Thin Client Transfer File CMSW 7320 (file transfer mode) and Thin Client Transfer Direct CMSW 7321 (direct database communication mode) products are licensed separately. Each license specifies the number of remote computers that may upload data to @ptitude Analyst. Once you upload data from your DAD, one of the licenses for that upload method is permanently tied to the computer that was used to either perform the upload or generate the upload file.

Licenses are validated during upload using the Transaction Server to which the Thin Client Transfer installation connects. You do not need to enter license keys at each location where Thin Client Transfer is installed; rather, licenses are entered using the License Key Manager on the computer hosting the Transaction Server.

If you have one license key file on your network that is shared by multiple installations of @ptitude Analyst, you may enter the Thin Client Transfer licenses in the License Key Manager at any @ptitude Analyst installation. If each installation uses its own license file, you must enter the keys on the computer hosting the Transaction Server referenced by Thin Client Transfer, as specified during the Thin Client Transfer installation procedure.

- By default, license key files are stored on the local computer. If you would like to place a copy of the license key file on the network where it can be shared by multiple installations, use the **File** / **Use File...** menu option in the License Key Manager at each @ptitude Analyst installation.
- If the Thin Client Transfer license key was entered during installation of the Transaction Server host, no further action is required. If it was not already entered, you may enter the key at any time using the License Key Manager.

If you require additional licenses, contact your SKF Condition Monitoring sales representative.

Launching @ptitude Analyst Thin Client Transfer

When SKF @ptitude Analyst Thin Client Transfer is installed, it creates a shortcut in the SKF @ptitude Monitoring Suite program group.

To launch Thin Client Transfer:

- Select the Windows' **Start** menu's **SKF @ptitude Monitoring Suite** group.
- Select **SKF @ptitude Analyst Thin Client Transfer**.

During Thin Client Transfer installation, you specify the machine name and port for the Transaction Server that should be used for communication with @ptitude Analyst. During login, the Thin Client Transfer application searches for a Transaction Server using this information and attempts to make a connection with your @ptitude Analyst database. If the Transaction Server is not found (i.e., you are launching from a remote location), a message displays asking if you would like to continue in Offline mode.

- Select **Yes** to continue.

- If this is a remote location that will never have access to the Transaction Server, enable **Do not show this dialog anymore**. In the future, Thin Client Transfer will go directly into offline mode without displaying this dialog.
- If you are logging in from a computer that should have access to the Transaction Server but it is not located, make sure the **SKF @ptitude Transaction Server** service is running in Windows.

Alternatively, if a Transaction Server is located, a connection is made with your @ptitude Analyst database and the **User Login** dialog displays. Thin Client Transfer login uses the same user accounts as @ptitude Analyst login.

- Enter the appropriate user name and password and click **OK** to launch the application.

Hierarchy Selection

@ptitude Analyst data is organized into hierarchies. In @ptitude Analyst, each user must select a Primary Hierarchy to be used as the default. This same hierarchy is used by default when a user logs into Thin Client Transfer. If necessary, you may change the hierarchy used by Thin Client Transfer.

To change the @ptitude Analyst hierarchy:

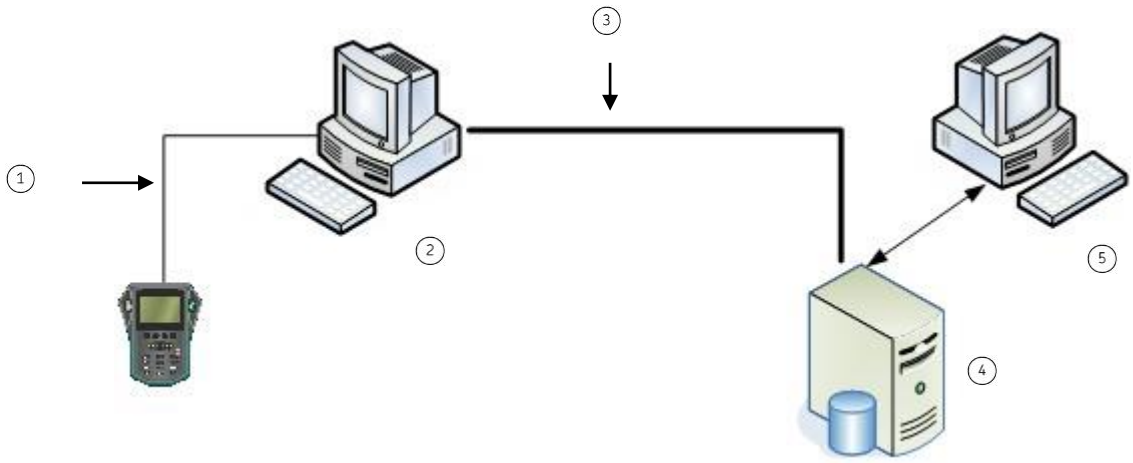
- Log into Thin Client Transfer.
- Select **File** / **Open/Close** from the menu. The **Open/Close** dialog displays. The hierarchy currently in use is highlighted.
- If necessary, highlight a different hierarchy and click **OK**.

2
Direct Database Communication

Overview

SKF @ptitude Analyst Thin Client Transfer Direct (CMSW 7321) provides database communication that allows data to be uploaded to and downloaded from a Microlog Analyzer or MARLIN DAD from a remote client computer by directly connecting with the @ptitude Analyst database via an optimized connection using the SKF Transaction Server. This is primarily used for thin client network environments (e.g., a Citrix environment) or for clients on a network with low bandwidth (including satellite connections).

- You must log into Thin Client Transfer from a computer with access to the Transaction Server to use this option.
- Upload and download functionality using Thin Client Transfer is almost identical to upload and download functionality using the @ptitude Analyst interface.



1. USB / Serial Connection to DAD
2. Remote Client using Thin Client Transfer
3. Low Bandwidth Network
4. @ptitude Analyst Client
5. Database Server

Establishing Communication with the Data Acquisition Device (DAD)

Before transferring data to or from the Microlog Analyzer or MARLIN, you must connect the Data Acquisition Device and ensure the communication settings are identical between the Thin Client Transfer application and the connected DAD.

Thin Client Transfer Database Communication on a Microlog Analyzer

The Microlog Analyzer transfer function allows you to download measurement POINT setups to the Microlog Analyzer, upload collected data from the Microlog Analyzer, check the Microlog Analyzer status, and configure, clear, or reset the Microlog Analyzer.

The Microlog Analyzer features three ways to communicate with Thin Client Transfer:

Serial

Modem

USB

It is important to note that some options only transfer when communicating via USB. If you use a serial or modem connection, the following information is *not* transferred:

- Orbit SCL, Triax (3-channel), and 2-channel type POINTs are only transferred to or from the DAD when using the USB connection.
- Multiple-measurement data (i.e., data from a single POINT that produces multiple measurements) is only uploaded to @ptitude Analyst from the DAD using the USB connection.
- You may only transfer data to or from an AX Series Microlog Analyzer using the USB connection.
  - POINTs with greater than 6400 lines of resolution or an end frequency greater than 2400 kCPM are only supported on the AX Series Microlog Analyzer using the USB connection. If these POINTs are transferred to a non- AX Series Microlog Analyzer, the lines and end frequency will be set back to the maximum supported by the unit.

If you have configured any of these POINT types or settings, you must use a USB connection when transferring data to or from the Microlog Analyzer to include these options.

To set up the Microlog Analyzer for data transfer:

- Connect the Microlog Analyzer to the client computer with access to Thin Client Transfer. Reference your Microlog Analyzer User Manual for specifics.
- From within Thin Client Transfer, select **Transfer** / **Microlog Analyzer**.
- Select **DAD <--> DB**. The **Microlog Analyzer** transfer dialog displays.
- The software automatically checks for a connection between the client computer and the Microlog Analyzer. An alert dialog displays if there is a

connection error. This dialog appears if the cable connection is not correct, the communication settings have not yet been configured, or if prior settings are not currently working. Click **OK** at the message to continue. Refer to the *Configuring Communication Settings* heading, later in this section, for instructions on setting up the connection.

- If a connection error occurs, the transfer dialog title bar displays **Microlog Analyzer not responding**. Once a connection is established, the transfer dialog displays **Microlog Analyzer ready**.
- If you are using a modem connection, you must select the proper modem type.
- For first time use, you must install the modem in the **Communications** tab of the **Microlog Analyzer** transfer dialog. You need only to install the modem once. The dialog opens after initial modem installation and will either automatically dial out (in **Originate** mode), or will wait for the Microlog Analyzer to dial in (in **Auto Answer Mode**).
- Appropriate error messages display if the modem connection is not successful.
- If you are using a USB connection, an error message displays if the required Microsoft ActiveSync or Windows Mobile Device Center application is not detected. Check your ActiveSync or Mobile Device Center connection and try again.

Thin Client Transfer's Database Communication on a MARLIN

The MARLIN transfer function allows you to download measurement POINT setups to the MARLIN, upload collected data from the MARLIN, check the MARLIN status, and configure, clear, or reset the MARLIN.

To set up the MARLIN for data transfer:

- Connect the MARLIN to the client computer with access to Thin Client Transfer. Reference your MARLIN User Manual for specifics.
- Turn on the MARLIN.
- On the MARLIN, access the **Transfer** screen. The MARLIN is ready to communicate with Thin Client Transfer.
- From within Thin Client Transfer, select **Transfer** / **MARLIN**.
- Select **DAD <--> DB**. The **MARLIN DAD <--> DB** dialog displays.
- The software automatically checks for a connection between the client computer and the MARLIN. An alert dialog displays if there is a connection error. This dialog appears if the cable connection is not correct, the communication settings have not yet been configured, or if prior settings are not currently working. Click **OK** at the message to continue. Refer to the *Configuring Communication Settings* heading, below, for instructions on setting up the connection.

➢ If a connection error occurs, the **Transfer** dialog title bar displays **DAD not responding**. Once a connection is established, the **Transfer** dialog displays **MARLIN ready**.

Configuring Communication Settings

If the automatic check for a connection returns an error, use the **Communication** tab of the MARLIN or Microlog Analyzer transfer dialog to configure the communication settings.

To set communication settings:

- At the MARLIN or Microlog Analyzer transfer dialog, select the **Communication** tab.

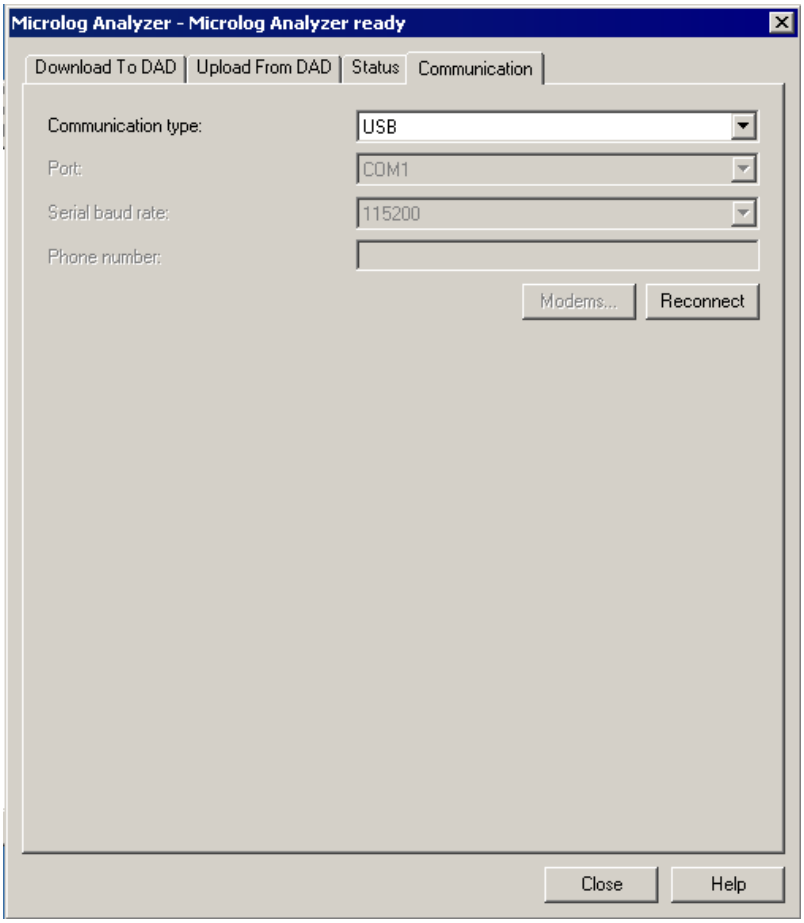


Figure 2 - 1.
The Microlog Analyzer Transfer Dialog's **Communication** Tab.

➢ Options on this tab vary, depending on the type of DAD selected.

Communication fields include:

Communication type – Used to specify how the Microlog Analyzer or MARLIN communicates with the software. Options include:

Serial – for direct, hard-wired connection between the Microlog Analyzer or MARLIN and the host computer via serial ports.

Modem Originate (Microlog Analyzer Only) – Used for modem connections over communication lines between the Microlog Analyzer and the host computer in attended mode. To make the connection, the host computer operator dials the Microlog Analyzer via the **Reconnect** button.

Modem Auto Answer (Microlog Analyzer Only) – Used for modem connection over communication lines between the Microlog Analyzer and the host computer in attended mode. To make the connection, the Microlog Analyzer dials in to the host computer while the host computer's modem is in waiting mode.

USB – Used to communicate using Microsoft's ActiveSync via USB.

- Selecting **USB** communication type disables the **Port** and **Serial Baud Rate** drop-down lists and (with Microlog Analyzer transfer only) the **Phone Number** field. Use ActiveSync's **Connection Settings** to configure communication parameters.
- Refer to Microsoft.com for more information about ActiveSync communication.

Port – For serial communication, specify which host computer COM port you are using (such as, COM1, COM2, COM3, COM4).

Serial Baud Rate - Set the serial baud rate. This setting must match the Microlog Analyzer's or MARLIN's Baud Rate setting.

Phone number (Microlog Analyzer Only) - Used in **Modem Originate** mode to dial a Microlog Analyzer in a remote location. Enter the phone number of the modem on the Microlog Analyzer-end of the modem link.

Modems button (**Microlog Analyzer Only**) – If you are communicating with a Microlog Analyzer via modem, click this button to launch your computer's modem dialog. The dialog allows you to install a new modem or set up the existing modem on your computer. Refer to your modem manual for instructions on installing the modem.

- The **Modem** dialog may also be launched from the control panel.

Reconnect button – When you are satisfied with your Microlog Analyzer or MARLIN communication settings, click this button to renew the connection between the DAD and the host computer using the current settings on the **Communication** tab. If the connection is successful, the title bar changes to **Microlog Analyzer** or **MARLIN Ready**.

- If the title bar displays **Microlog Analyzer** or **MARLIN not responding** after clicking **Reconnect**, verify that the DAD is properly connected using the selected **Communication Type** and that all communication settings are correct.

Download to a Microlog Analyzer or MARLIN DAD

The **Download To DAD** tab of the Microlog Analyzer or MARLIN transfer dialog allows you to download measurement POINT setups from the @ptitude Analyst database to your data acquisition device.

Important – *If the Microlog's internal clock does not match your system clock, Thin Client Transfer will reset your Microlog's clock as soon as communications are established. See the SKF @ptitude Analyst Thin Client Transfer Installation Manual for more details on this configuration.*

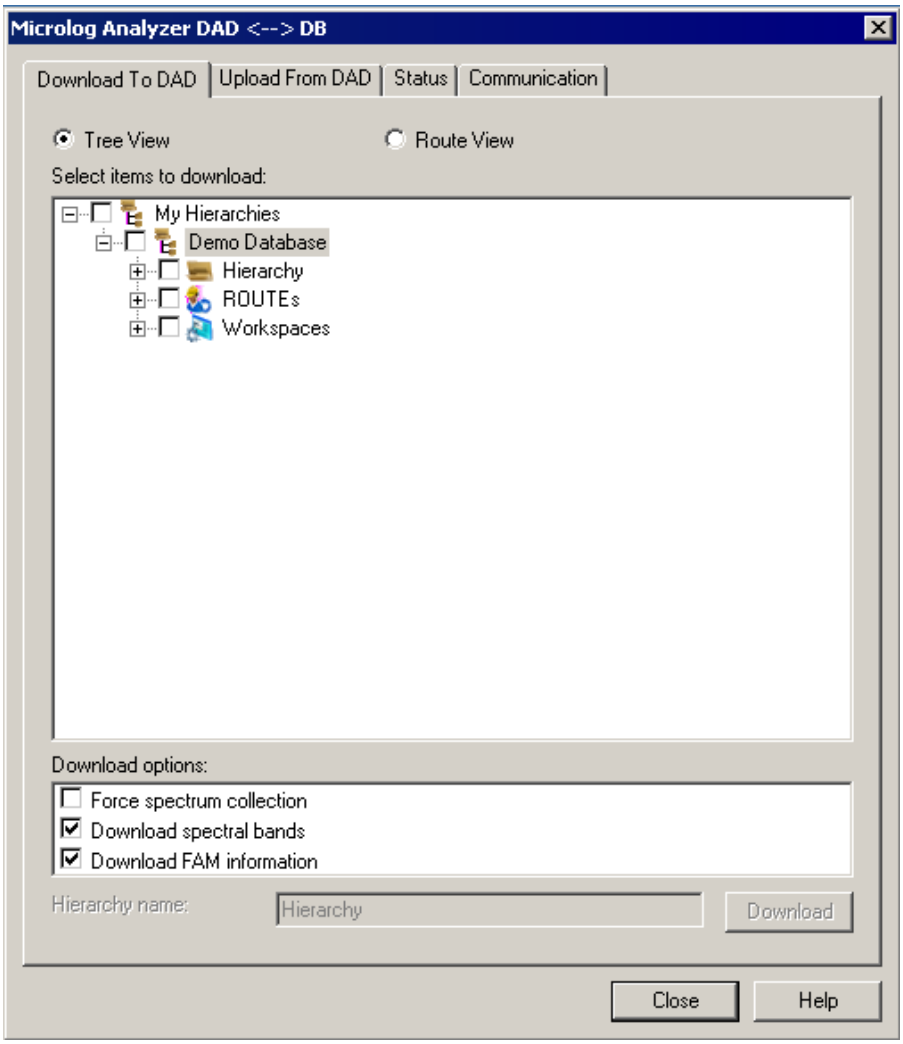


Figure 2 - 2.
The Thin Client Transfer **Microlog Analyzer** Dialog's **Download to DAD** Tab Displaying **Tree View**.

- Options on this dialog vary, depending on the selected DAD.

Items available for download appear in the tab's **Select items to download** window.

Tree View – Select items to download from the Hierarchy, ROUTEs, and/or Workspaces.

- Click on the [+] signs to expand the tree.
- A checkmark in the checkbox indicates *all* items in the Hierarchy, ROUTE, or Workspace are selected.
- A grey checkmark indicates *some* items are selected.
- No checkmark indicates *no* items are selected.

ROUTE View – If you are only downloading ROUTEs, use this view to quickly select the ROUTEs.

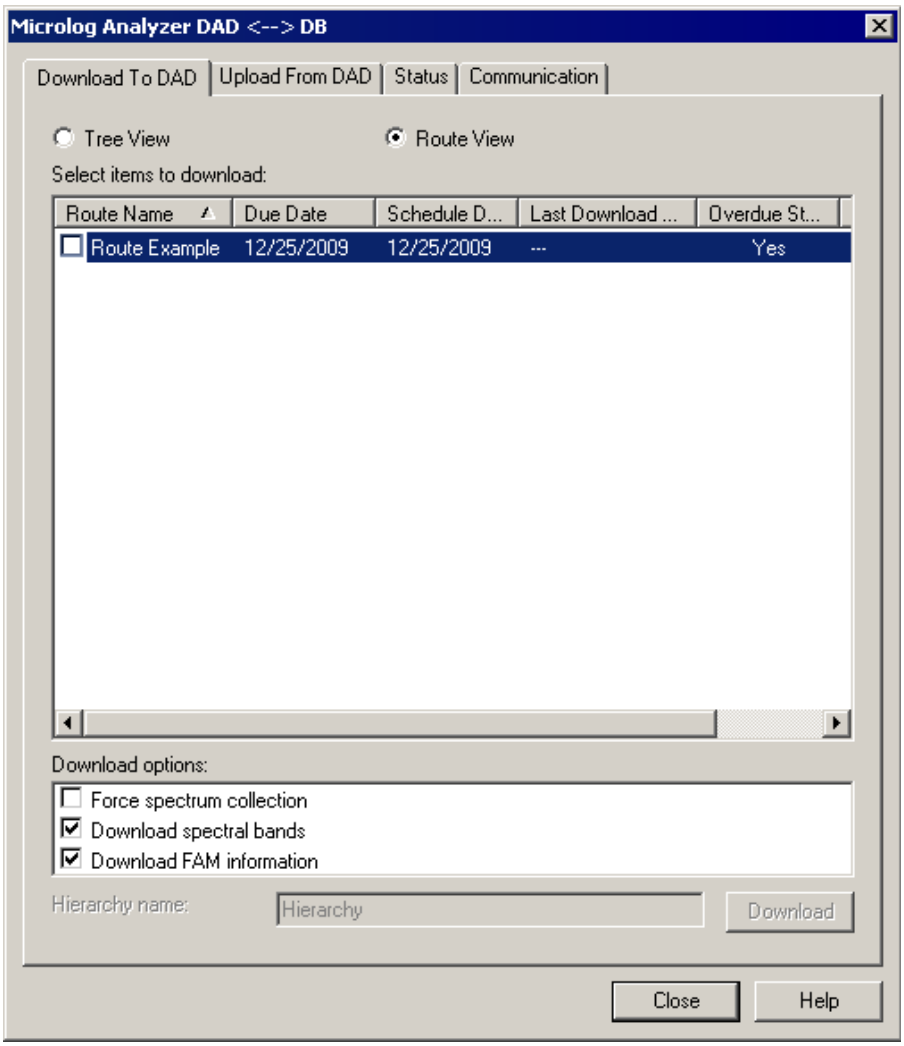


Figure 2 - 3.
The Thin Client Transfer **Microlog Analyzer** Dialog's **Download to DAD** Tab Displaying **ROUTE View**.

ROUTEs are organized into six categories; **ROUTE Name**, **Due Date**, **Schedule Date, Last Download Date, Overdue Status,** and **Hierarchy**.

- Only complete ROUTEs may be downloaded. To download individual POINTs, select them from the Hierarchy list in **Tree View**.

Download Options – Select checkboxes to include in the download. Available download options vary depending on whether you are downloading to a Microlog Analyzer or MARLIN DAD.

Download options for the **Microlog Analyzer** are:

Force spectrum collection – Forces spectrum collection on every overall measurement. Use for baseline data collection and/or data collection before or after a machine overhaul (when collected spectra are necessary for every POINT).

Download spectral bands - Available only when downloading to a CMVA Series Microlog Analyzer with firmware version 3.30 or newer. Use this feature to download spectral band alarms for the downloaded POINTs.

Download FAM information - Available when downloading to a CMVA Series Microlog Analyzer with firmware version 3.80 or newer, or a Microlog Analyzer GX or AX. Use this feature to download bearing fault frequency information associated with the downloaded POINTs.

- Not applicable to Microlog Analyzer GX or AX.
- Coded notes are automatically included in a Microlog Analyzer download.

Download options for the **MARLIN** are:

Coded notes – Select to include a list of common machinery notes, enabling quick and easy notation during data collection.

Use last inspection result(s) as default – If enabled, the previous Inspection Result(s) appear selected in the MARLIN's Inspection POINT Data Collection screen.

Download previous (MARLIN Only) – Enter a number between 1 and 99 or use the arrows to indicate how many previous measurements you would like to download to the MARLIN.

Hierarchy Name – If you select items directly from the Hierarchy list, they will appear as a specially named ROUTE in the Microlog Analyzer and MARLIN.

- Assign a unique name in the **Hierarchy Name** text field for identification purposes.

Download button – Click to begin the download. The download progress displays in the progress bar.

- The hierarchy specified on the Microlog Analyzer or MARLIN must match the hierarchy currently selected in Thin Client Transfer. If an error dialog displays when the download process is initiated, check the dialog's **Status** tab to compare the Microlog Analyzer's or MARLIN's **Data Source** to the current Thin Client Transfer hierarchy and configure the DAD's status information if necessary.

Upload from DAD

After you have completed collecting data, re-connect the Microlog Analyzer or MARLIN and establish communications using the same procedure described earlier for downloading.

> ***Important*** *– If the Microlog's internal clock does not match your system clock, Thin Client Transfer will reset your Microlog's clock as soon as communications are established.*
>
> *The transaction service can also be configured to adjust the dates and times of any measurements being processed, provided those measurements' dates and times fall outside the configured tolerance period. The software can be configured to create a new Event Log record and/or POINT Notes entry reflecting each adjustment.*
>
> *See the SKF @ptitude Analyst Thin Client Transfer Installation Manual for more details on the configurations mentioned above..*

- At the Thin Client Transfer Microlog Analyzer or MARLIN transfer screen, select the **Upload from DAD** tab.

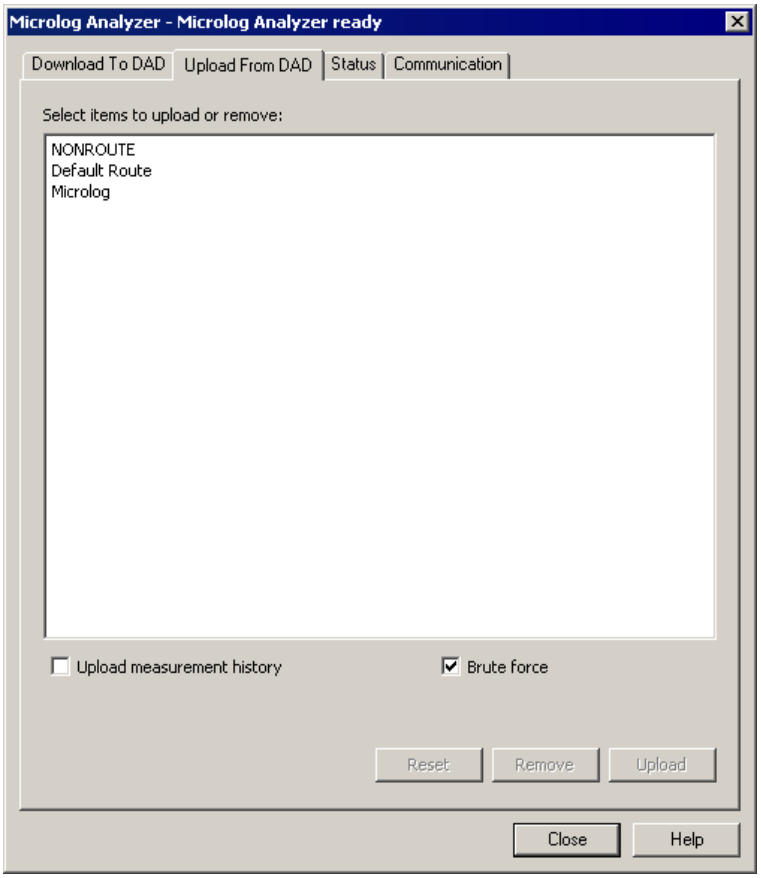


Figure 2 - 4.
The Thin Client Transfer **Microlog Analyzer** Dialog's **Upload From DAD** Tab.

➢ Options on this dialog vary, depending on the selected DAD.

Select items to upload or remove – Displays all ROUTEs currently stored in the connected Microlog Analyzer or MARLIN.

- Select the ROUTE(s) you wish to upload or remove. Use Ctrl+click to select multiple items.

Brute Force (Microlog Analyzer Only) – A Brute Force upload creates new POINTs (beneath a Non-ROUTE set in the hierarchy) for all uploaded collector POINTs (even if the uploaded POINTs already exist in the hierarchy) and uploads all data into these new POINTs.

- After selecting which ROUTEs to upload, use this check box to select whether to use brute force to create new hierarchy POINTs for the uploaded data.
    - Orbit / SCL, Triax (3-Channel), and 2-Channel POINTs will only be created if you are communicating using a USB connection.

Upload Measurement History (Microlog Analyzer Only) - When data is collected on the Microlog Analyzer for a POINT that already has a stored measurement, there is an option to append the new measurement. If a new measurement is appended, the original measurement is added to an historical data file. Enable this check box to include historical measurements in the upload. Disable it to only upload the most recent measurement for each POINT.

Reset Button **(Microlog Analyzer Only)** – After uploading, click to reset selected ROUTEs. Use this option to clear collected data from the Microlog Analyzer for the selected ROUTEs, but leave the ROUTE structure (SETs, Machines, and POINTs) and measurement instructions. This allows you to take data for a ROUTE, upload it, reset the data, and then take data on the same ROUTEs again. The reset option also downloads all operator names within the selected operator set to the Microlog Analyzer.

Remove Button **(Microlog Analyzer Only)** – Click to remove selected ROUTEs from the Microlog Analyzer.

- You may remove ROUTEs from the Microlog Analyzer if you are using a CMVA Series Microlog Analyzer with firmware version 3.52 or newer, or a Microlog Analyzer GX or AX.

Upload Button – Click this button to initiate the upload process. POINTs are automatically processed into the hierarchy after the upload. Process status displays on the status bar.

Status

The **Status** tab displays the connected Microlog Analyzer's or MARLIN's status, and compares the DAD's current hierarchy with the current @ptitude Analyst hierarchy. Status information appears in the **Device status information** window.

- At the Thin Client Transfer Microlog Analyzer or MARLIN transfer screen, select the **Status** tab.

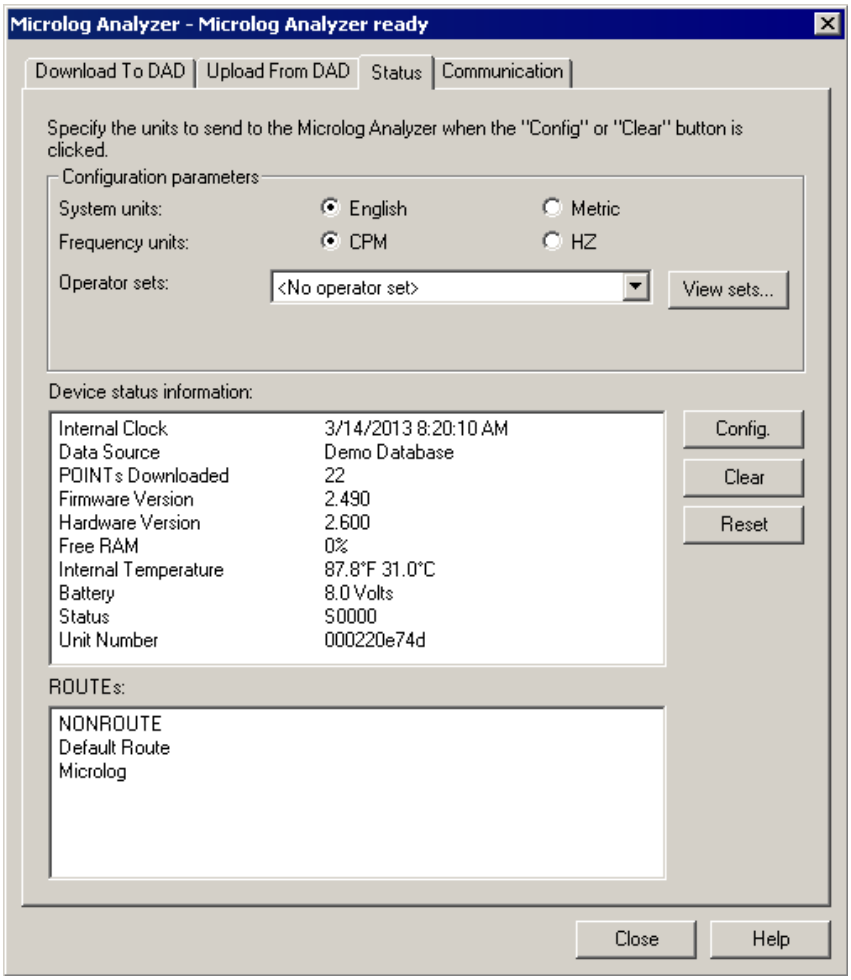


Figure 2 - 5.
The Microlog Analyzer Dialog's **Status** Tab.

➢ Options on this dialog vary, depending on the selected DAD.

The tab's **Configuration Parameters** area allows you to select operator sets and download them to the DAD using the **Clear** and **Reset** buttons.

If you are connected to a Microlog Analyzer DAD, the **Configuration Parameters** area also provides options to determine the system and frequency units for non-ROUTE measurements to send to the Microlog Analyzer when the **Config** or **Clear** buttons are used. Options include:

DAD system units (Microlog Analyzer Only) – Select **English** or **Metric**. Determines the default measurement units for *non-ROUTE* measurements taken on

the Microlog Analyzer. This setting does not affect Microlog Analyzer ROUTE measurements.

Frequency Units (Microlog Analyzer Only) – Determines the default frequency units for *non-ROUTE* measurements taken on the Microlog Analyzer. Select **CPM** or **HZ**.

Operator Sets – The MARLIN and Microlog Analyzer DADs support operator names to tag measurement data with the corresponding operator's name. Operator sets group several operators together.

- If desired, select an operator set from the drop down list. The specified operator set downloads to the DAD when you click the **Clear** / **Reset** buttons.

View Sets – Select this option to view the operators that are in a particular operator set. The **View Sets** dialog displays.

- Select a set from the drop down list. All operators included in the selected set display in the **Operators** area.
- Click **OK** to return to the **Status** tab with the current operator selected in the **Operator Sets** field.

Device status information includes:

Internal Clock – Date and time from the Microlog Analyzer's or MARLIN's clock.

Data Source – The name of the source hierarchy for POINTs currently stored in the Microlog Analyzer or MARLIN. If you are downloading to the DAD, the data source must match the currently selected hierarchy. If you are uploading from the DAD, only ROUTEs in the specified **Data Source** are available on the **Upload from DAD** tab.

POINTs Downloaded – Number of POINTs currently stored in the Microlog Analyzer or MARLIN.

Firmware Version – The Microlog Analyzer or MARLIN firmware version number.

Hardware Version (Microlog Analyzer Only) – The version number of the Microlog Analyzer hardware unit.

Free RAM – The percent of the Microlog Analyzer's or MARLIN's memory that is free for storage.

Internal Temperature (Microlog Analyzer Only) – The Microlog Analyzer 's internal temperature.

Battery – The Microlog Analyzer's or MARLIN's battery voltage level.

Serial Number (Microlog Analyzer Only) – Available only with a CMVA Series Microlog Analyzer with firmware version 3.80 or newer, or a GX / Series Microlog Analyzer.

Status – The Microlog Analyzer's or MARLIN's status code.

Unit Number (Microlog Analyzer Only) – Available only with Microlog Analyzer GX or AX.

Routes – Displays the list of all ROUTEs stored in the connected Microlog Analyzer or MARLIN.

Three command buttons appear in this tab. They are:

Config – Use this to update the Microlog Analyzer's or MARLIN's status information to match those of the host computer. This option sets the internal clock on the DAD to match the host computer and sets the **Data Source** to match the hierarchy currently selected in Thin Client Transfer. The **Config** option also downloads the specified operator list from the @ptitude Analyst Database to the DAD.

Clear – Use this option to clear the entire Microlog Analyzer or MARLIN. It erases all data, SETs, Machines, POINTs, ROUTEs, ROUTE Instructions, non-ROUTE POINTs, operator lists, and coded notes stored in the Microlog Analyzer or MARLIN. It does not change the DAD's menu settings. After clearing the DAD, the **Clear** option downloads the specified operator list from the @ptitude Analyst Database to the DAD.

Reset – After uploading, click to reset selected ROUTEs. Use this option to clear collected data from the Microlog Analyzer or MARLIN for the selected ROUTEs, but leave the ROUTE structure (SETs, Machines, and POINTs), sequence, and measurement instructions. This allows you to take data for a ROUTE, upload it, reset the data, and then take data on the same ROUTEs again. The reset option also downloads all operator names within the selected operator set to the Microlog Analyzer or MARLIN.

3
File Transfer

Process Overview

SKF @ptitude Analyst Thin Client Transfer File (CMSW 7320) provides a file communication feature that allows you to upload and download data using files created on remote systems, without requiring a direct connection of the Microlog Analyzer or MARLIN DAD to the computer hosting @ptitude Analyst. This is generally used in situations where data collection occurs at a different location than data analysis using @ptitude Analyst.

Use the following sequence of steps when performing file transfer:

1) On a computer with access to your @ptitude Analyst database, use Thin Client Transfer's **File <-->DB** option to create a file (*.dskf) containing your data collection POINTs.
2) Send that file (e.g., via e-mail) to a computer with access to the Data Acquisition Device (DAD) at the remote site.
3) Connect the DAD to that computer and use Thin Client Transfer's **DAD <--> File** option to download the ROUTE to the DAD.
4) Collect the measurements on the DAD.
5) Connect the DAD to the computer with Thin Client Transfer and use the **DAD <--> File** option to upload the resulting measurements to a file (*.uskf).
6) Send that file (e.g., via e-mail) to the computer with access to the @ptitude Analyst database.
7) On the computer with access to the @ptitude Analyst database, use Thin Client Transfer's **File <-->DB** option to upload the collected measurements to the database.

File Transfer to / from an @ptitude Analyst Database

File transfer to and from an @ptitude Analyst database allows you to create a file with data collection POINTs that may be transferred to your remote site. Once data has been collected, it also allows you to upload resulting measurements back into @ptitude Analyst.

- In order to use this feature, you must have a connection with an SKF @ptitude Transaction Server. Refer to *Launching @ptitude Analyst Thin Client Transfer*, earlier in this manual, for details.

To access the file to database transfer dialog:

- From within Thin Client Transfer, select **Transfer** / **MARLIN** or **Transfer** / **Microlog Analyzer** (depending on your DAD).
- Select **File <--> DB**. The **MARLIN** or **Microlog Analyzer File <-->DB** dialog displays.

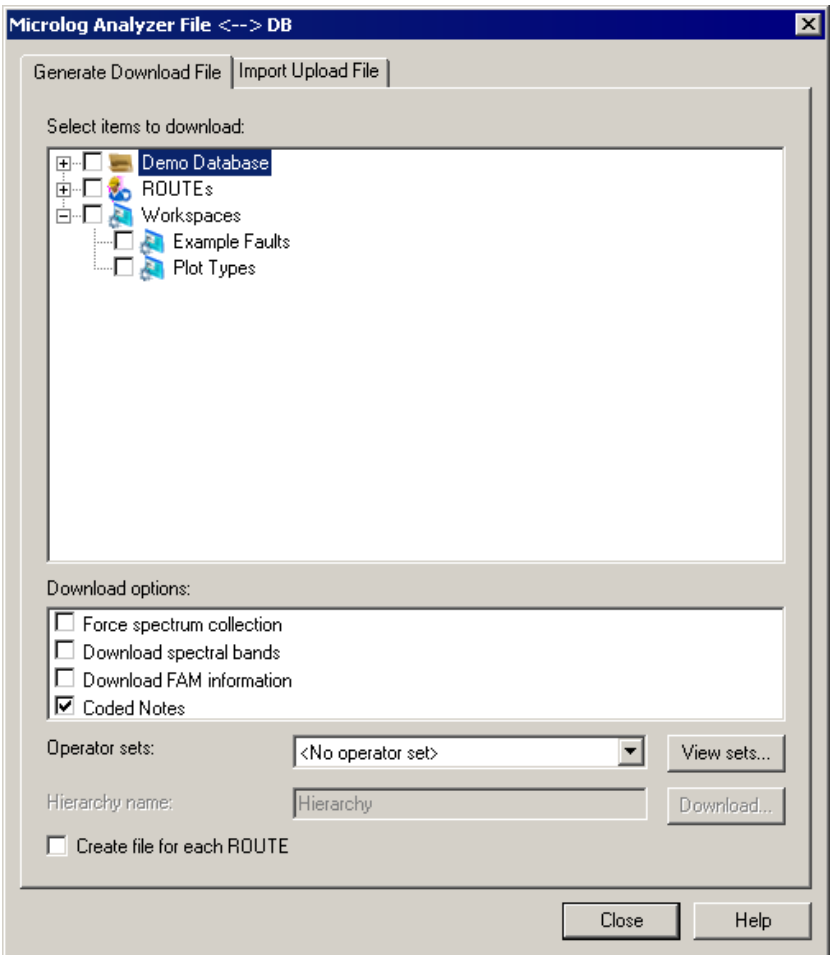


Figure 3 - 1.
The **Microlog Analyzer File <--> DB** Dialog.

➢ Options on this dialog vary, depending on the selected DAD.

The Generate Download File Tab

Use the **Generate Download File** tab to create a download file (.dskf) that can be emailed to a remote site. This download file may contain multiple ROUTES, Hierarchies, or Workspaces.

Options include:

Select items to download - Select the Hierarchy items, Workspaces, and ROUTES to download to the .dskf file. A checkmark in the top-level checkbox indicates *all* branching items in the Hierarchy, ROUTE, or Workspace are selected. A grey checkmark indicates *some* items are selected. No checkmark indicates *no* items are selected.

Download options – Select checkboxes to include options in the download file. Available download options vary depending on whether you are creating a download file for a Microlog Analyzer or MARLIN DAD.

Download options for the **Microlog Analyzer** are:

Coded notes – Select to include a list of common machinery notes, enabling quick and easy notation during data collection.

Force spectrum collection – Forces spectrum collection on every overall measurement. Use for baseline data collection and/or data collection before or after a machine overhaul (when collected spectra are necessary for every POINT).

Download spectral bands - Available only when downloading to a CMVA Series Microlog Analyzer with firmware version 3.30 or newer, or a Microlog Analyzer GX or AX. Use this feature to download spectral band alarms for the downloaded POINTs.

Download FAM information - Available when downloading to a CMVA Series Microlog Analyzer with firmware version 3.80 or newer. Use this feature to download bearing fault frequency information associated with the downloaded POINTs.

- Not applicable to Microlog Analyzer GX or AX.

Download options for the **MARLIN** are:

Coded notes – Select to include a list of common machinery notes, enabling quick and easy notation during data collection.

Use last inspection result(s) as default – If enabled, the previous Inspection Result(s) appear selected in the MARLIN's Inspection POINT Data Collection screen.

Download previous (MARLIN Only) – Enter a number between 1 and 99 or use the arrows to indicate how many previous measurements you would like to download.

Operator Sets – The MARLIN and Microlog Analyzer DADs support operator names to tag measurement data with the corresponding operator's name. Operator sets group several operators together. If you would like to download a group of operators to the DAD, select the appropriate operator set from the list.

View Sets – Select this option to view the operators that are in a particular operator set. The **View Sets** dialog displays.

- Select a set from the drop down list. All operators included in the selected set display in the **Operators** area.
- Click **OK** to return to the **File <-->DB** dialog with the current operator selected in the **Operator Sets** field.

Hierarchy name – If you select to download items directly from the hierarchy list, enter a name under which they will branch when viewed on the Microlog Analyzer or MARLIN.

Create file for each ROUTE – If you have selected more than one ROUTE in the **Select items to download** area, enable this option to have a separate .dsfk file created for each ROUTE.

> ➢ If you select a combination of ROUTE, Hierarchy, and Workspace items with this option selected, a separate file is created for each ROUTE, and a single file is created containing all Hierarchy and Workspace selections.

Download Button - Click to create the download file. The **Save As** dialog displays.

Save As fields include:

Save in – Specify the location to save the files. This defaults to a **\TCT xfer files** folder under **\My Documents**.

File name – Enter a name for the download file, or use the default name.

> ➢ If you have enabled **Create file for each ROUTE**, files are automatically named with the name of the ROUTE. If that option is enabled and you are only downloading ROUTEs, the **File name** option in **Save As** does not appear. If you have selected a combination of ROUTEs, Hierarchy, and Workspace items with **Create file for each ROUTE** enabled, the **File name** only applies to the file containing the Hierarchy and Workspace items.

Save as type – Select **SKF Download (*.dskf)** to save as a download file.

Save Button – Click to save the download file to the specified location.

Once created and saved, you can attach the .dskf file to an email, or transmit the file over a network to a remote site that has access to the DAD and Thin Client Transfer installed.

The Import Upload File Tab

Use the **Import Upload File** tab to upload measurements in an upload file (a file with the .uskf filename extension) created at the remote site.

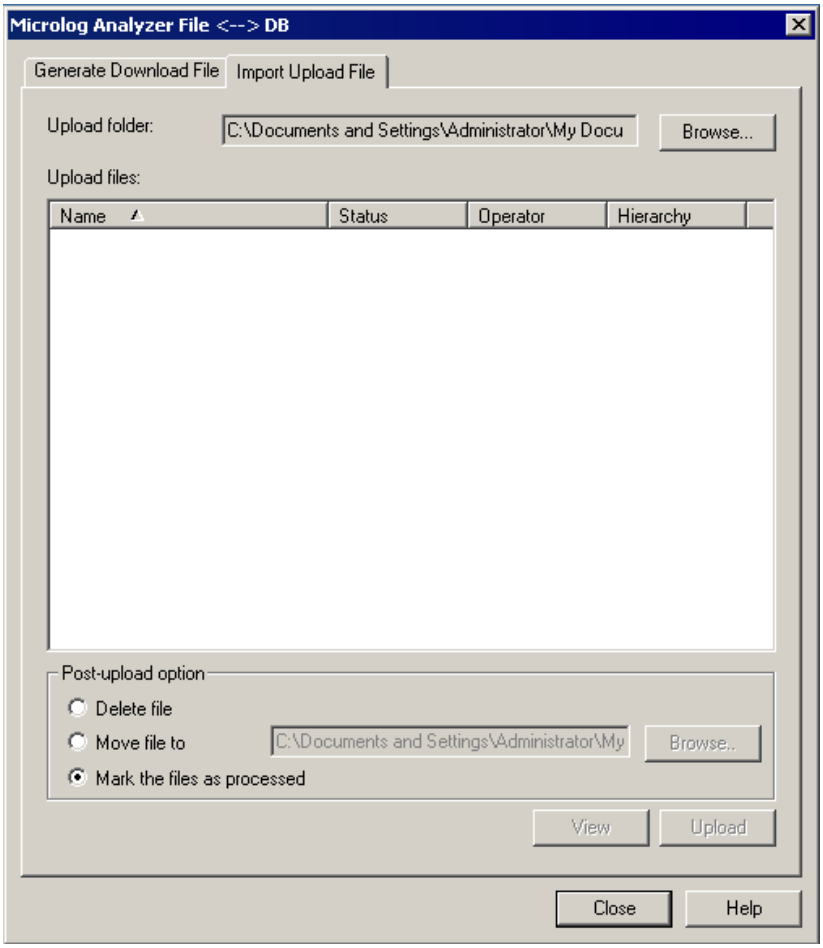


Figure 3 - 2.
The **Microlog Analyzer File <--> DB** Dialog's **Import Upload File** Tab.

Options on this tab include:

Upload folder – Click the **Browse** button to locate the folder containing the Microlog Analyzer or MARLIN .uskf files you wish to upload.

Upload files – Displays all upload files in the selected folder. Enable the check box next to the files you would like to upload.

Post upload options – Select which action to take after the .uskf file has been uploaded. Available selections are:

Delete file – The selected upload file will be deleted once its data has been uploaded to @ptitude Analyst and processed.

- It is recommended that you save the file for archive purposes rather than deleting it.

Move file to – For archive purposes, the selected upload file will be stored in the location you specify. When this option is selected, the field next to this option is enabled. Select the **Browse** button to identify the location of your choice.

Mark the files as processed – For archive purposes, the selected upload file will remain in its present location. The file extension will change to .U__ to indicate it is a processed Upload file.

View Button– Click to view a text file with details on the data contained in the selected upload file.

Upload Button - Click to upload measurements in the selected upload files (.uskf) to the @ptitude Analyst database.

File Transfer to / from a Data Acquisition Device (DAD)

Before working with download and upload files at the remote site, you must first:

- Connect the Microlog Analyzer or MARLIN to the host computer and ensure communication settings are the same on the host computer and the connected DAD.

Once proper communication is established, you are able to use the Thin Client Transfer application to:

- **Open** and **View** a download file's contents (.dskf) sent from the @ptitude Analyst site via email or network transfer.
- Transfer ROUTE, Hierarchy, or Workspace POINTs from the download file (.dskf) to a Microlog Analyzer or MARLIN.
  - These POINTs appear as ROUTE(s) on the DAD.
- Upload collected measurement data from the Microlog Analyzer or MARLIN and create the upload files (.uskf).
- **Open** and **View** an upload file (.uskf) contents before sending measurements back to @ptitude Analyst via email or network transfer.

Establishing Communication with the DAD

Before transferring data to or from the Microlog Analyzer or MARLIN, you must connect the DAD and ensure the communication settings are identical between the Thin Client Transfer application and the connected DAD.

Accessing Thin Client Transfer's File Transfer on a Microlog Analyzer

The Microlog Analyzer features three ways to communicate with Thin Client Transfer:

Serial

Modem

USB

It is important to note that some options only transfer when communicating via USB. If you use a serial or modem connection, the following information is *not* transferred:

- Orbit SCL, Triax (3-channel), and 2-channel type POINTs are only transferred to or from the DAD when using the USB connection.
- Multiple-measurement data (i.e., data from a single POINT that produces multiple measurements) is only uploaded to @ptitude Analyst from the DAD using the USB connection.
- You may only transfer data to or from a Microlog Analyzer AX using the USB connection.
  - ➢ POINTs with greater than 6400 lines of resolution or an end frequency greater than 2400 kCPM are only supported on the Microlog Analyzer AX using the USB connection. If these POINTs are transferred to a non-AX Microlog Analyzer, the lines and end frequency will be set back to the maximum supported by the unit.

If you have configured any of these POINT types or settings, you must use a USB connection when transferring data to or from the Microlog Analyzer to include these options.

To Set Up the Microlog Analyzer for Data Transfer:

- Connect the Microlog Analyzer to the client computer with access to Thin Client Transfer. Reference your Microlog Analyzer User Manual for specifics.
- From within Thin Client Transfer, select **Transfer** / **Microlog Analyzer**.
- Select **DAD <--> File.** The **Microlog Analyzer DAD <--> File** dialog displays.
- The software automatically checks for a connection between the client computer and the Microlog Analyzer. An alert dialog displays if there is a connection error. This dialog appears if the cable connection is not correct, the communication settings have not yet been configured, or if prior settings are not currently working. Click **OK** at the message to continue. Refer to the *Configuring Communication Settings* heading, later in this section, for instructions on setting up the connection.
  - ➢ If a connection error occurs, the **Transfer** dialog title bar displays **DAD not responding**. Once a connection is established, the **Transfer** dialog displays **Microlog Analyzer ready**.

- If you are using a modem connection, you must select the proper modem type.
- For first time use, you must install the modem in the **Communications** tab of the **Microlog Analyzer** dialog. You need only to install the modem once. The dialog opens after initial modem installation and will either automatically dial out (in **Originate** mode), or will wait for the Microlog Analyzer to dial in (in **Auto Answer Mode**).
- Appropriate error messages display if the modem connection is not successful.

Accessing Thin Client Transfer's File Transfer on a MARLIN

The MARLIN features two ways to communicate with Thin Client Transfer:

Serial

USB

To Set Up the MARLIN for Data Transfer:

- Connect the MARLIN to the client computer with access to Thin Client Transfer. Reference your MARLIN User Manual for specifics.
- Turn on the MARLIN.
- On the MARLIN, access the **Transfer** screen. The MARLIN is ready to communicate with Thin Client Transfer.
- From within Thin Client Transfer, select **Transfer** / **MARLIN**.
- Select **DAD <--> File**. The **MARLIN DAD <--> File** dialog displays.
- The software automatically checks for a connection between the client computer and the MARLIN. An alert dialog displays if there is a connection error. This dialog appears if the cable connection is not correct, the communication settings have not yet been configured, or if prior settings are not currently working. Refer to the *Configuring Communication Settings* heading, below, for instructions on setting up the connection.
  - If a connection error occurs, the **Transfer** dialog title bar displays **DAD not responding**. Once a connection is established, the **Transfer** dialog displays **MARLIN ready**.

Configuring Communication Settings

If the automatic check for a connection returns an error, use the **Communication** tab of the MARLIN or Microlog Analyzer transfer dialog to configure the communication settings.

To set communication settings:

- At the MARLIN or Microlog Analyzer transfer dialog, select the **Communication** tab.

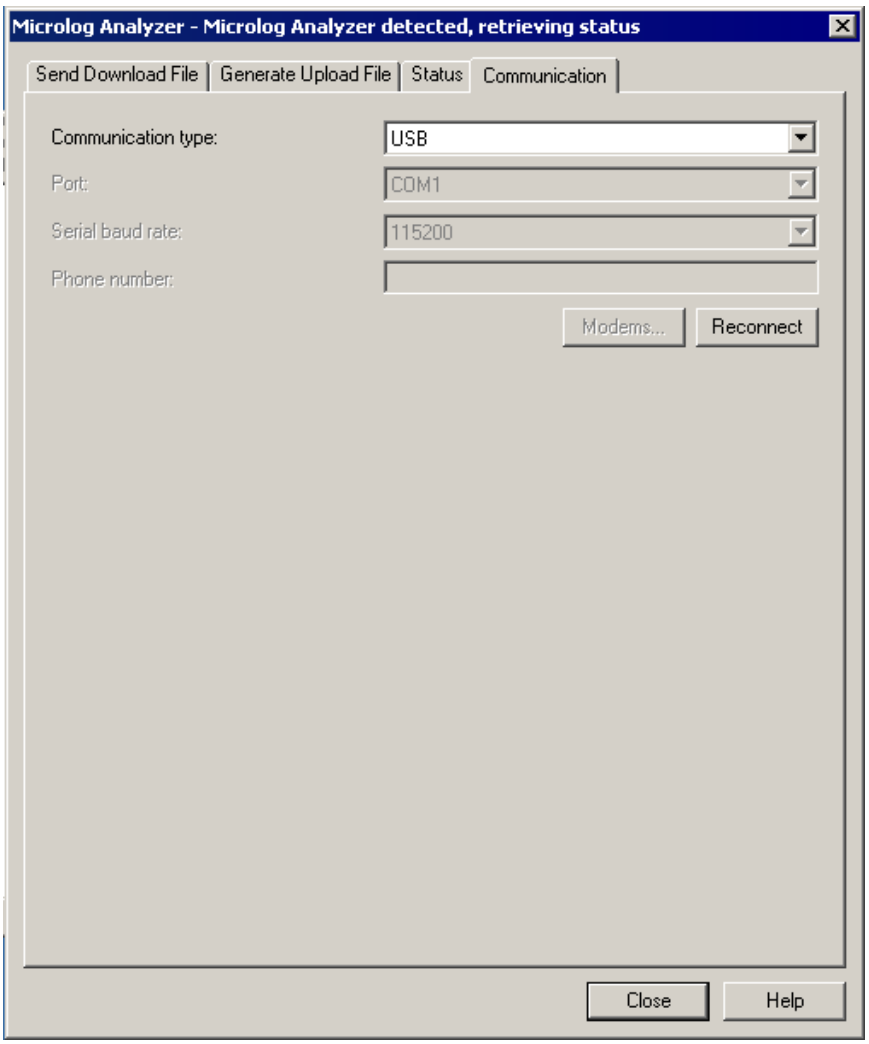


Figure 3 - 3.
The Microlog Analyzer Transfer Dialog's **Communication** Tab.

➢ Options on this tab vary, depending on the type of DAD selected.

Communication fields include:

Communication type – Used to specify how the Microlog Analyzer or MARLIN communicates with the software. Options include:

Serial – for direct, hard-wired connection between the Microlog Analyzer or MARLIN and the host computer via serial ports.

Modem Originate (Microlog Analyzer Only) – Used for modem connections over communication lines between the Microlog Analyzer and the host computer in attended mode. To make the connection, the host computer operator dials the Microlog Analyzer via the **Reconnect** button.

Modem Auto Answer (Microlog Analyzer Only) – Used for modem connection over communication lines between the Microlog Analyzer and the host computer in attended mode. To make the connection, the Microlog Analyzer dials in to the host computer while the host computer's modem is in waiting mode.

USB – Used to communicate using Microsoft's ActiveSync via USB.

- Selecting **USB** communication type disables the **Port** and **Serial Baud Rate** drop-down lists and (with Microlog Analyzer transfer only) the **Phone Number** field. Use ActiveSync's **Connection Settings** to configure communication parameters.
- Refer to Microsoft.com for more information about ActiveSync communication.

Port – For serial communication, specify which host computer COM port you are using (such as, COM1, COM2, COM3, COM4).

Serial Baud Rate - Set the serial baud rate. This setting must match the Microlog Analyzer's or MARLIN's Baud Rate setting.

Phone number (Microlog Analyzer Only) - Used in **Modem Originate** mode to dial a Microlog Analyzer in a remote location. Enter the phone number of the modem on the Microlog Analyzer-end of the modem link.

Modems button (**Microlog Analyzer Only**) – If you are communicating with a Microlog Analyzer via modem, click this button to launch your computer's modem dialog. The dialog allows you to install a new modem or set up the existing modem on your computer. Refer to your modem manual for instructions on installing the modem.

- The **Modem** dialog may also be launched from the control panel.

Reconnect button – When you are satisfied with your Microlog Analyzer or MARLIN communication settings, click this button to renew the connection between the DAD and the host computer using the current settings on the **Communication** tab. If the connection is successful, the title bar changes to **Microlog Analyzer** or **MARLIN Ready**.

- If the title bar displays **Microlog Analyzer** or **MARLIN not responding** after clicking **Reconnect**, verify that the DAD is properly connected using the selected **Communication Type** and that all communication settings are correct.

The Send Download File Tab

Use the **Microlog Analyzer** or **MARLIN** transfer dialog's **Send Download File** tab to select and transfer download files (.dskf files) to a Microlog Analyzer or MARLIN Data Acquisition Device (DAD).

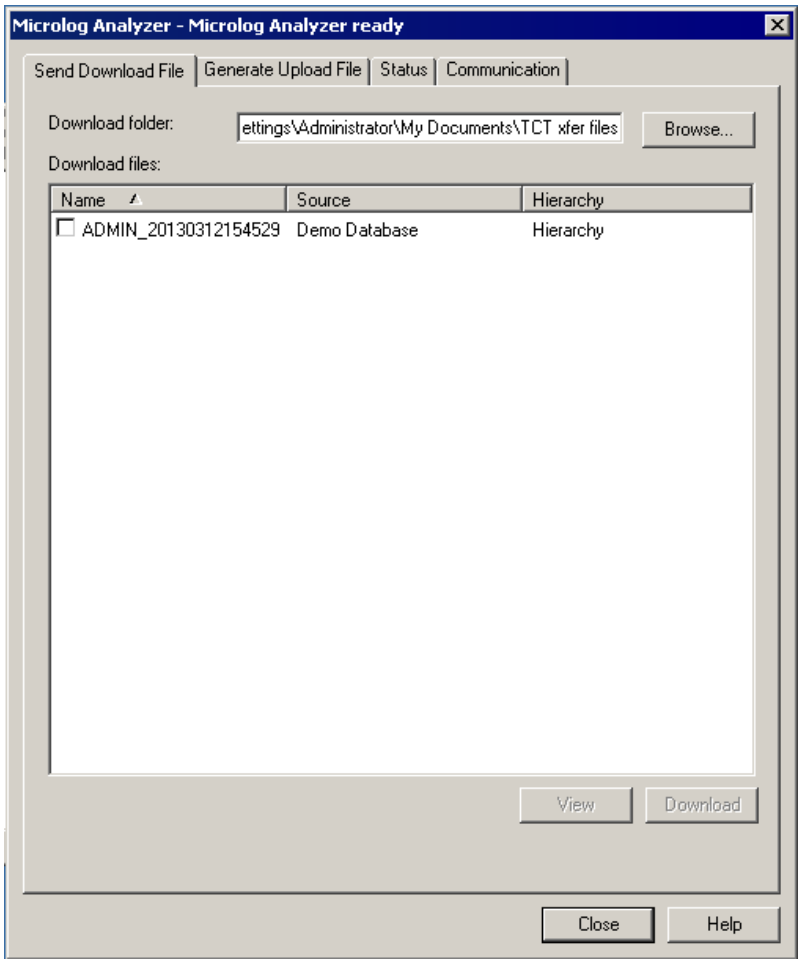


Figure 3 - 4.
The **Microlog Analyzer** Transfer Dialog's **Send Download File** Tab.

To download a .dskf file's measurements to a DAD:

- Connect the Microlog Analyzer or MARLIN to the computer.
- Open the Thin Client Transfer application.
- Select **Transfer** / **MARLIN** or **Transfer** / **Microlog Analyzer** (depending on your DAD).
- Select **DAD <--> File**. The **MARLIN** or **Microlog Analyzer** dialog displays at the **Send Download File** tab.

The DAD is now ready for data collection.

Send Download File fields include:

Download Folder – Enter the path to the folder containing the .dskf files that were received from the @ptitude Analyst site, or click the **Browse** button to locate the desired folder.

Download files – Displays all download files in the selected folder. Enable the check box next to the files you would like to download to the DAD.

View Button – Click to view a text file with details on the data contained in the selected download file.

Download Button – Click to download the selected .dskf file's contents to the Microlog Analyzer or MARLIN.

The Generate Upload File Tab

After collecting measurement data, use the **Generate Upload File** tab to transfer collected data from the Microlog Analyzer or MARLIN to the remote computer. This creates an upload file (.uskf) that can be emailed or network transferred to the @ptitude Analyst site.

To create an upload file (.uskf file):

- Open the Thin Client Transfer application.
- Select **Transfer** / **MARLIN** or **Transfer** / **Microlog Analyzer** (depending on your DAD).
- Select **DAD <--> File**. The **MARLIN** or **Microlog Analyzer** dialog displays.
- Select the **Generate Upload File** tab.

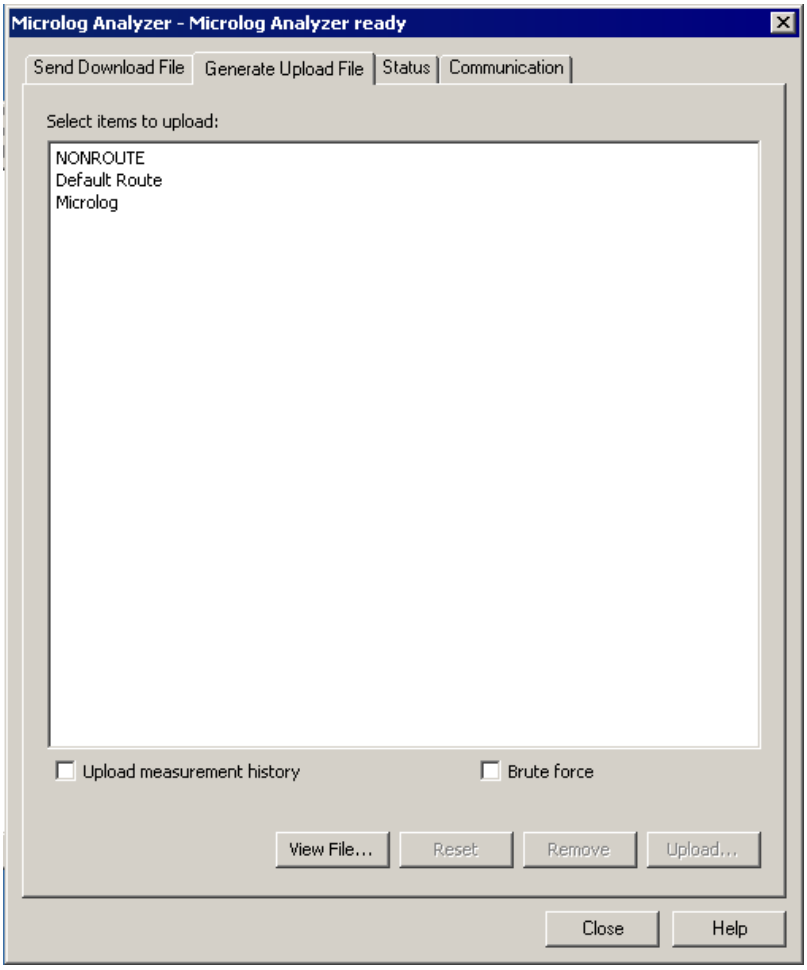


Figure 3 - 5.
The **Microlog Analyzer** Transfer Dialog's **Generate Upload File** Tab.

- Options on this tab vary, depending on the type of DAD selected.

Generate Upload File fields include:

Select item to upload – Displays all ROUTEs currently stored in the connected Microlog Analyzer or MARLIN.

- Select the ROUTE(s) you wish to upload or remove. Use Ctrl+click to select multiple items.

Brute Force (Microlog Analyzer Only) – A Brute Force upload creates new POINTs (beneath a Non-ROUTE set in the hierarchy) for all uploaded collector POINTs (even if the uploaded POINTs already exist in the hierarchy) and uploads all data into these new POINTs.

- After selecting which ROUTEs to upload, use the **Brute Force** check box to select whether to use brute force to create new hierarchy POINTs for the uploaded data.
  - Orbit / SCL, Triax (3-Channel), and 2-Channel POINTs will only be created if you are communicating using a USB connection.

Reset Button **(Microlog Analyzer Only)** – After uploading, click to reset selected ROUTEs. Use this option to clear collected data from the Microlog Analyzer for the selected ROUTEs, but leave the ROUTE structure (SETs, Machines, and POINTs) and measurement instructions. This allows you to take data for a ROUTE, upload it, reset the data, and then take data on the same ROUTEs again. The reset option also downloads all operator names within the selected operator set to the Microlog Analyzer.

Remove Button **(Microlog Analyzer Only)** – Click to remove selected ROUTEs from the Microlog Analyzer.

- You may remove ROUTEs from the Microlog Analyzer if you are using a CMVA Series Microlog Analyzer with firmware version 3.52 or newer, or a Microlog Analyzer GX or AX.

Upload Button – Click to upload selected items to an upload file (.uskf). The **Save As** dialog displays.

Save As fields include:

Save in – Specify the location to save the files. This defaults to a **\TCT xfer files** folder under **\My Documents**.

Save Button – Click to save the upload file to the specified location.

Once created and saved, you can attach the .uskf file to an email, or transmit the file over a network, to the @ptitude Analyst site.

The Status Tab

Use the **Status** tab to view or change the connected Microlog Analyzer's or MARLIN's settings.

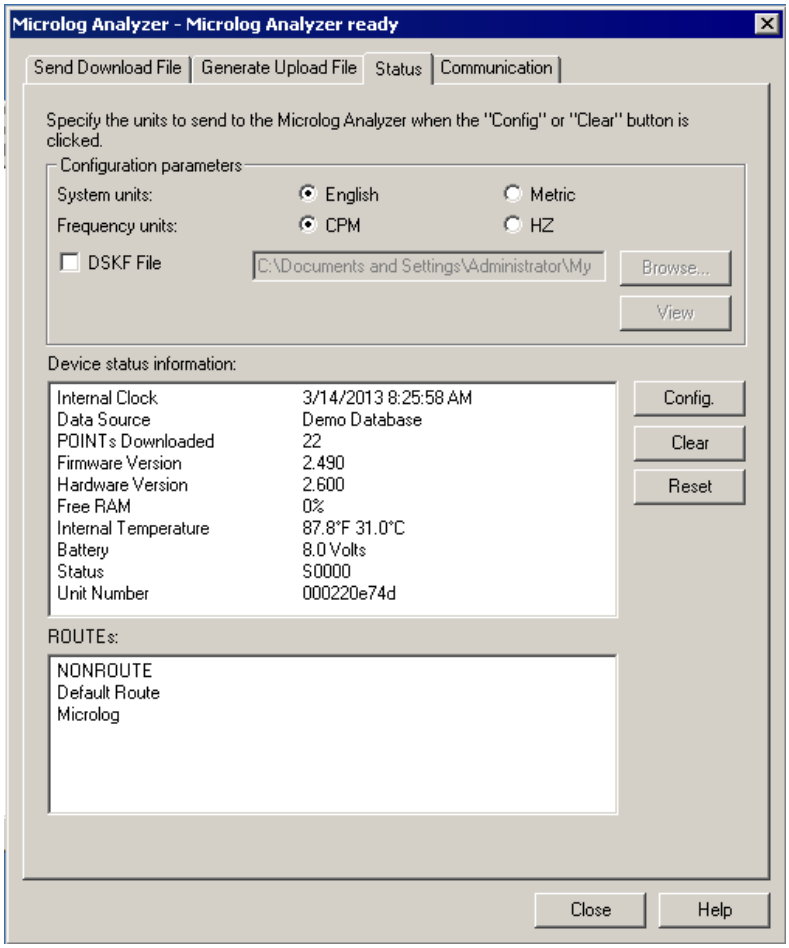


Figure 3 - 6.
The **Microlog Analyzer** Transfer Dialog's **Status** Tab.

- Options on this tab vary, depending on the type of DAD selected.

Status fields include:

DAD system units (Microlog Analyzer Only) – Select **English** or **Metric**. Determines the default measurement units for *non-ROUTE* measurements taken on the Microlog Analyzer. This setting does not affect Microlog Analyzer ROUTE measurements.

Frequency Units (Microlog Analyzer Only) – Determines the default frequency units for *non-ROUTE* measurements taken on the Microlog Analyzer. Select **CPM** or **HZ**.

DSKF File – Enable to have the option to configure the Microlog Analyzer or MARLIN based on the data in a specified .dskf file. When a .dskf file is selected and a Microlog Analyzer or MARLIN connection is established, the following command buttons activate:

Browse – Select to locate the download (.dskf) file you would like to use.

View – Select to view the contents of the selected .dskf file.

Config – Use this to update the Microlog Analyzer's or MARLIN's status information to match those in the .dskf file. This option sets the internal clock on the DAD to match the host computer (the computer running TCT) and sets the Data Source to match the hierarchy in the .dskf file. The **Config** option also downloads the operator list from the selected .dskf file to the Microlog Analyzer or MARLIN.

Clear – Use this option to clear the entire Microlog Analyzer or MARLIN. It erases all data, SETs, Machines, POINTs, ROUTEs, ROUTE Instructions, non-ROUTE POINTs, operator lists, and coded notes stored in the Microlog Analyzer or MARLIN. It does not change the DAD's menu settings. After clearing the DAD, the **Clear** option downloads the specified operator list from the @ptitude Analyst Database to the DAD.

Reset – After uploading, click to reset selected ROUTEs. Use this option to clear collected data from the Microlog Analyzer or MARLIN for the selected ROUTEs, but leave the ROUTE structure (SETs, Machines, and POINTs), sequence, and measurement instructions. This allows you to take data for a ROUTE, upload it, reset the data, and then take data on the same ROUTEs again. The reset option also downloads all operator names within the selected operator set to the Microlog Analyzer or MARLIN.

Device status information – Displays the following information:

Hardware Version – Displays the DAD's hardware version.

Internal Clock – Date and time from the Microlog Analyzer's or MARLIN's clock.

Data Source – The name of the source hierarchy for POINTs currently stored in the Microlog Analyzer or MARLIN. If you are downloading to the DAD, the data source must match the hierarchy currently selected in Thin Client Transfer. If you are uploading from the DAD, only ROUTEs in the specified **Data Source** are available on the **Upload from DAD** tab.

POINTs Downloaded – Number of POINTs currently stored in the Microlog Analyzer or MARLIN.

Firmware Version – The Microlog Analyzer's or MARLIN's firmware version number.

Hardware Version (Microlog Analyzer Only) – The version number of the Microlog Analyzer hardware unit.

Free RAM – The percent of the DAD's memory that is free for storage.

Internal Temperature (Microlog Analyzer Only) – The Microlog Analyzer's internal temperature.

Battery – The DAD's battery voltage level.

Status – The Microlog Analyzer's or MARLIN's status code.

Unit Number (Microlog Analyzer Only) – Available only with a Microlog Analyzer GX or AX.

Routes – Displays the list of all ROUTEs stored in the connected Microlog Analyzer or MARLIN.

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