Kodak

NVS Tracker Toolbox

User Guide

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Revision History

Revision	Date	Author	Comments
3.x	01 Feb 2007	Glen Carey	First draft
3.1	01 Oct 2007	Janet Waterman	Reformatted to Kodak template and style guidelines
3.2	05 Mar 2008	Glen Carey	Updated notes on System Monitor, which now supports VLF Magnus, TH2 and TH3 heads. Updated notes on Edit Mode, which now includes an Advance Find feature. Updated names of two utilities due to ambiguity with the previous names chosen (ie: the Alert Me If utility was renamed to Parameter Evaluation Utility). Updated notes on Parameter Evaluation Utility, which now supports both integer and word data (True, False, Enabled, Disabled, etc) Updated all screen captures (pictures) related to the changes made.

Kodak

NVS Tracker Toolbox
User Guide

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1. WHAT IS NVS TRACKER TOOLBOX?

NVS Tracker Toolbox is a terminal emulation program with custom features designed specifically to interface with Kodak® Magnus™, Platesetter and Trendsetter® platesetter systems. These features include:

- Terminal emulation similar to HyperTerminal and ProComm Plus

  Instead of scripts that can only be run one at a time, NVS Tracker has various integrated utilities so that several scripts can be run at the same time. This provides a variety of approaches when troubleshooting a system. NVS Tracker can also work in conjunction with the Service Shell Client, monitoring for faults or system conditions. NVS Tracker uses three logs for tracking data:

  - Terminal View is the terminal interface to the platesetter.
  - Diag Log stores program messages and test results from the various utilities.
  - Status Log displays the system status report after synchronizing with a platesetter.

- MPE, MCE, and GMCE support

  NVS Tracker supports all MPE, MCE, and GMCE platesetters operating with Microsoft® Windows® 2000, Windows 2003 or Windows XP workstations and servers using Service Shell 2.6 SP2 or later. It also supports databases and evaluation of our three head types: TH1, TH2 and TH3.

- Text editor

  The text editor has similar capabilities to Microsoft WordPad. It provides .txt or .rtf output. You can edit text within the Terminal View log or the Diag Log.

- Automatic backups of NVS parameters (NVS/PRM Dumps and FSave All).

- Automatic disk administration

  This function creates directories for storing client data, and maintains the total number of files within each directory (so that you can specify how many archived terminal logs, NVS Dumps, FSave, and so on to keep on disk). Up to 100 log files are allowed for each category for each platesetter serial number. The customer name and platesetter serial number are used for creating the directory structure.

- NVS comparison

  This routine scans your system parameters, compares them with the platesetter Database, and alerts you of any changes to the NVS parameters since your previous site visit, or the last time you synchronized with the system.

- NVS Restore

  This utility tracks any changes found by the NVS comparison routine and lets you selectively restore any NVS parameters on its list.

- NVS History

  NVS History lists the history of all NVS parameters and firmware versions that have been changed on each platesetter system (thermal head serial numbers,

MPE and Head Code versions, faults found, and so on). Use **View > NVS History** to see the records. In the CTP Database, you can right-click on any system to see the history of parameter changes.

- CTP Database

  This database stores client/system-related data for comparison and evaluation. You can view the various system parameters offline, and run fault analysis checks on the parameters (Parameter Evaluation Utility equations). You can also delete, import, and export data to other NVS Tracker users. See *Appendix E – Using the CTP Database* and *Appendix F – Assigning CTP Categories to Systems* for more details.

- Customizable Status Bar

  You can select categories of information that dynamically update while you are connected to a platesetter system. You can display information regarding the system you are working on (that is, customer name, platesetter category, platesetter serial/model, head serial/head code, and so on).

- Customizable User Interface

  For each display mode (Terminal View, Diag Log, Status Log, and Edit Mode), you can select how NVS Tracker behaves when it synchronizes. See *Setting Up User Options.*

- DataLink Parser Utility (data filter)

  Up to five active searches of words or phrases can be done while you are monitoring a connected system. You can query the external device for additional data when a search word is detected. Additional options are available for the DataLink Parser Utility setup.

- Parameter Evaluation Utility

  You can define tolerances for NVS parameters and evaluate them for faults. Up to 2000 Boolean equations can be stored in the database. NVS Tracker applies the equations to the specified systems and/or thermal heads when you synchronize with a system.

- Recent Commands List

  You can quickly execute any of the 50 most recent commands used. This list is loaded each time you log onto NVS Tracker, and can be enabled, disabled, or hidden. When you type a command, it is added to the beginning of the list. If the command already exists on the list, it is moved to the beginning of the list. Single-clicking a command loads the command for editing, while double-clicking executes the command.

- Security Features

  You can lock or unlock of the NVS Tracker user interface to protect access to the application while it is in use, lock or unlock Service Host, and require feature license authentication for program use. You can also password protect Admin Mode and set a timer for Auto Log-off after a specified period of inactivity.

- Staccato NVS Checker

  This MPE utility evaluates the narrow/wide related parameters, and reports differences between the two groups. You can select either wide or narrow as a reference, and the related parameter is updated with the value of the parameter being referenced. Parameter groups that are not selected remain unchanged.

- System Monitor

  Two monitors work together to track intermittent faults within platesetters. The Edge Detect monitor tracks the accuracy of edge detects for each media run on the system. It also runs basic diagnostics on startup and recommends maintenance steps to correct problems that are detected. The Environmental Monitor tracks system air pressure, humidity, vacuums and various temperatures, records minimums and maximums, and sends alerts to the diagnostic log for any readings that exceed a user-defined threshold.

- Workstation Debug Log

  This utility debugs the older style Allegro 1.7 logs, Platesetter Console logs (**\ctpws.log**), Print Console logs and Service Shell device logs. You can apply filters against the log to remove unwanted data from the final results, and customize search entries.

- Modes of Connection

  You can connect directly via the Comport using ASCII or connect via the Service Shell Host (emulating a Service Shell Client). See *Appendix A - Communication Modes* for more details.

2. INSTALLATION

2.1 Minimum Requirements

- VGA 800 x 600 resolution - works best with 1024 x 768 or greater
- 256 colors - works best with High Color (16 bit) or greater
- Approximately 7 MB installation space (not including disk space for the data directory)
- Software required:
  - Microsoft .Net Framework
  - Creo Feature License Server, including the version 4 licensing files
  - Service Shell Host (version 2.6 SP2 and later)
  - NVS Tracker Installer (see Appendix B for more details)

2.2 NVS Tracker Installer

This is a separate utility that must be run prior to installing NVS Tracker for the first time. The NVS Tracker Installer utility checks to ensure that all required software and support files have been installed. It also installs and registers the Service Host communication file (**ServiceHostATL.dll**) into **\ServiceShell\bin**, which is required for NVS Tracker to

function. See

Appendix B – NVS Tracker for more details.

You can install NVS Tracker on any drive and drive directory. Make sure to plan for space required for the **Data Files** directory. NVS Tracker creates this directory, along with other support directories to store your client data (NVS Dumps, FSave, Diag Logs, Status Logs, parameter grids, and so on). You can select your data directory location after you complete the initial install of the program— it is not limited to the same drive as the program's home/working directory. If NVS Tracker exists across a network, you must first map the network drive so that you can select it under **User Options**. See *Setting Up User Options*.

2.3 Upgrading

Before upgrading to a newer version of NVS Tracker, use **Control Panel > Remove Programs** to remove the current NVS Tracker program from your system. This will not remove your current client database or NVS Dumps/FSaves. After removing the old version, install the new version into the same directory.

Note: Never attempt to upgrade or uninstall NVS Tracker *while the program is in use*.

2.4 New Install

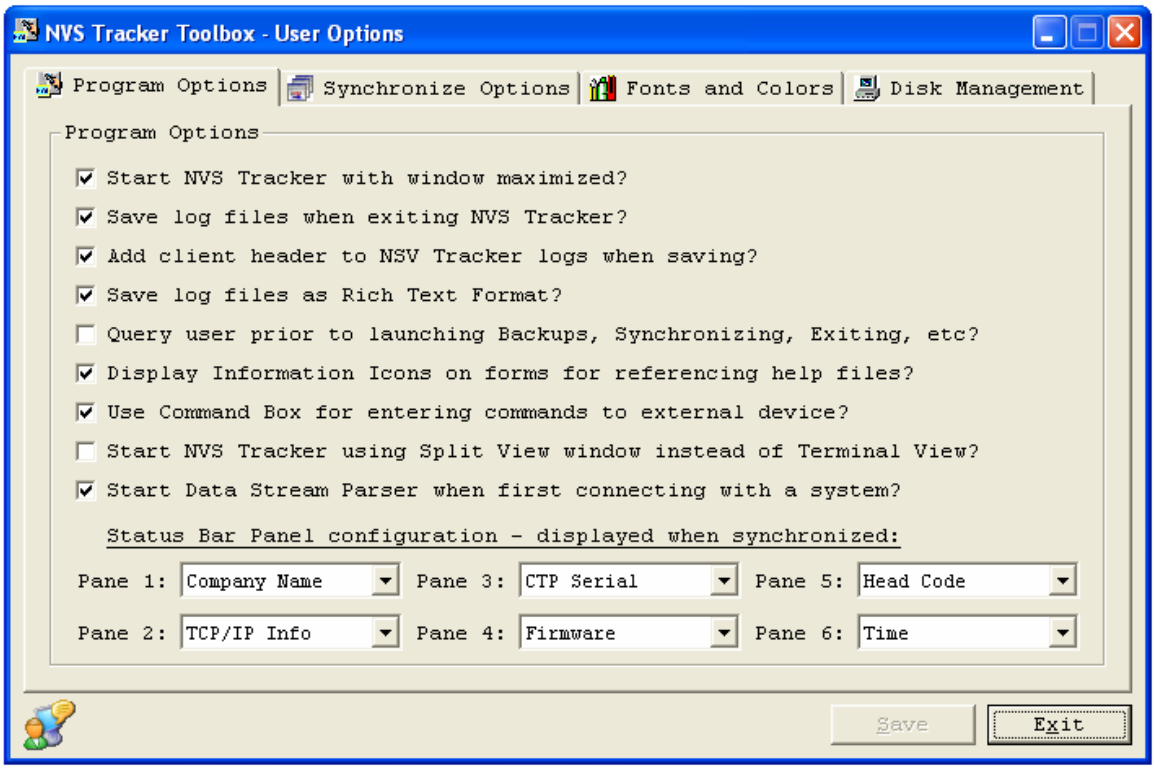
Insert the NVS Tracker installation CD (or download the installation program) and click **Setup.exe**.

The first time NVS Tracker starts, you must select **User Options** and the correct comport settings. You should enter the comport number (1-16) of your computer that HyperTerminal would use to communicate with our platesetter systems, or enter the TCP/IP address of the Service Shell Host connection. The default Service Shell Host address is **localhost**.

3. SETTING UP USER OPTIONS

NVS Tracker has a wide range of preferences for setting up a working environment. You can customize the Status Bar, font and log color selections, synchronization choices, disk management setup, and so on. Some of the basic setup options are listed in this section.

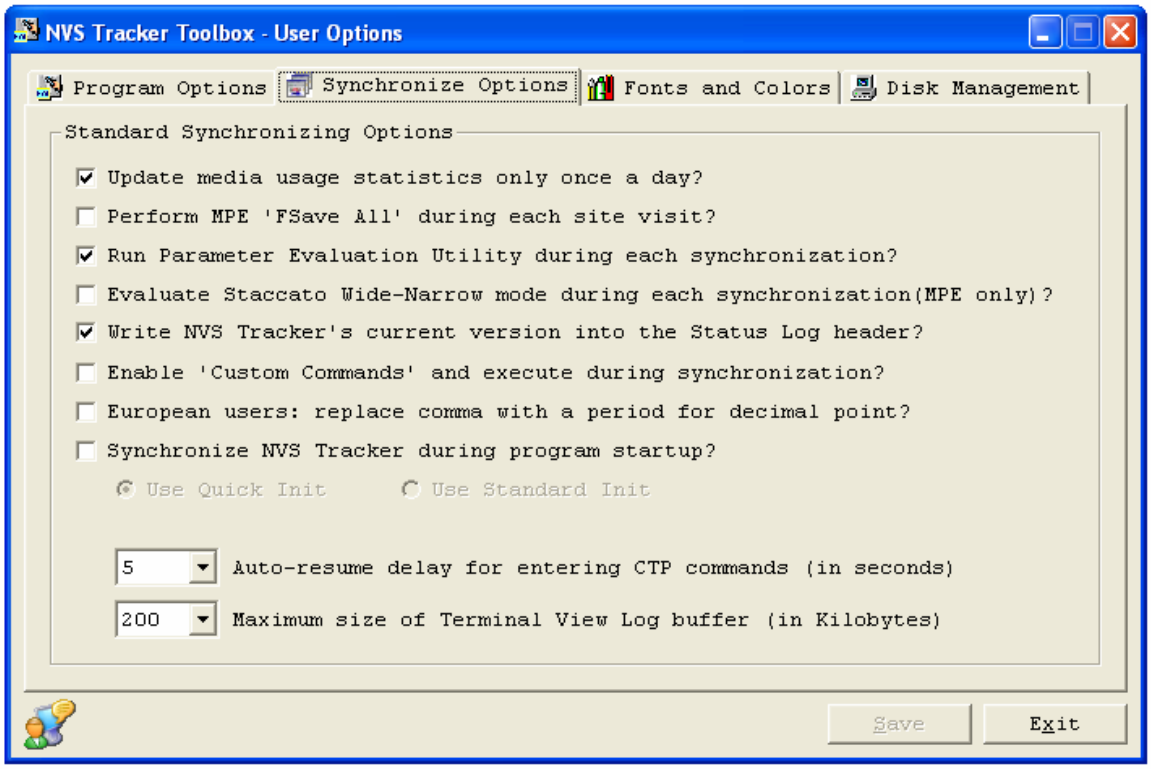
3.1 Program Options



Program Option	Description	Default
Start NVS Tracker with window maximized?	When selected, the window is maximized on starting the software.	✓
Save log files when exiting NVS Tracker?	When selected, NVS Tracker asks you to save any logs with unsaved data when you exit.	
Add client header to NVS Tracker log files when saving?	When selected, and after you synchronize the NVS Tracker, the same header that is displayed in the Status Log is copied to the Terminal View log and to the Diag Log when you save. This is useful if you are sending the log to product support for assistance. They will be able to view all the necessary information about the client, system versions, serial number & model, and so on.	✓
Save log files as Rich Text Format?	When selected, the Terminal View, Diag Log and the Status Log are saved as Rich Text Format (retaining all color, size and format). Otherwise, they are saved as plain text. Plain text files require less disk space.	✓
Query user prior to launching Backups, Synchronizing, Exiting, etc.?	When selected, you will be prompted prior to executing a major routine.	
Display Information Icons on forms for referencing help files?	When selected, NVS Tracker displays icons on various forms to explain how the program works. Click the icon to display the help file for the tool in use.	

Program Option	Description	Default
Use Command Box for entering commands to external device?	When selected, NVS Tracker uses a command line interface for sending commands to the external device (as Service Shell Client does). When cleared, NVS Tracker provides a similar GUI interface to ProComm Plus for sending commands, that is, you type directly in the same log where the returned dialog is displayed.	
Start NVS Tracker using Split View window instead of Terminal View?	When selected, NVS Tracker displays the Split View window that shows both the Terminal View and the Diag Log window.	
Start DataLink Parser when first connecting with a system (auto-launch)?	When selected, NVS Tracker starts the DataLink Parser Utility (data filter) the first time it connects to a system after starting.	
Status Bar Panel Configuration	You can customize the status panel at the bottom of the window, and any changes that take place while you are logged in will be updated. Several categories of data can be displayed	

3.2 Synchronize Options



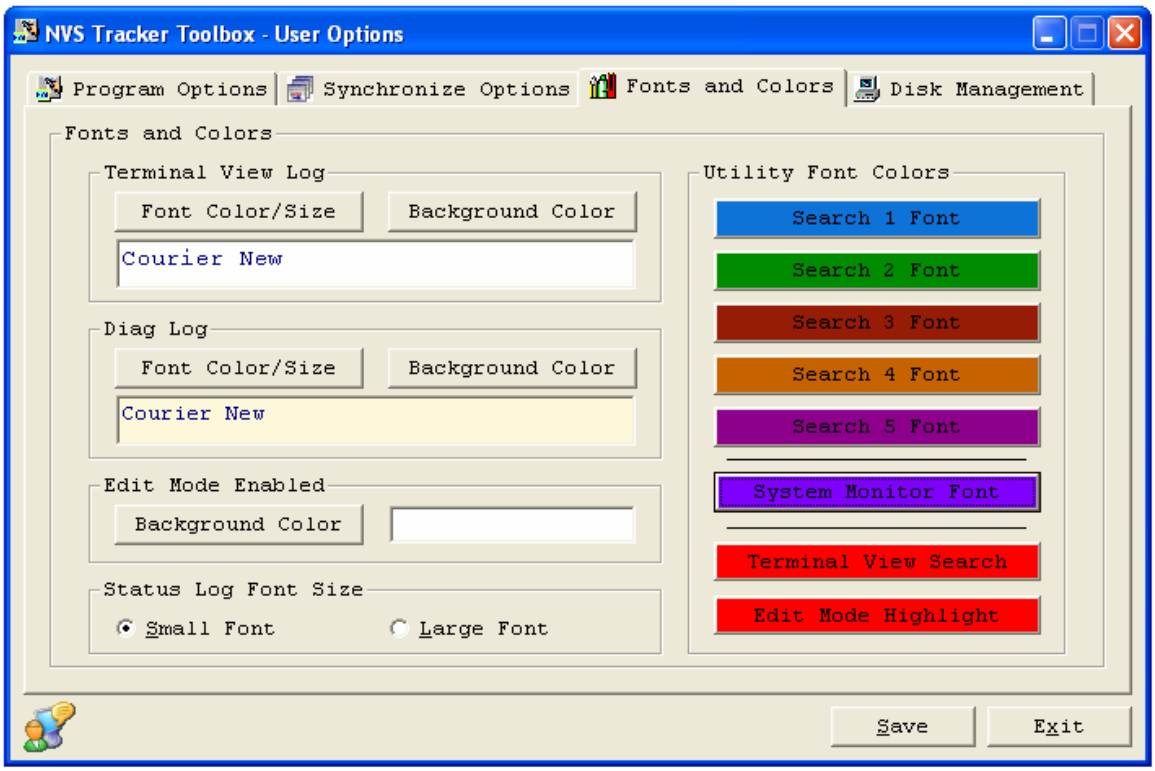
Synchronize Option	Description	Default
Update media usage statistics only once a day?	When selected, NVS Tracker updates media usage once during your visit, regardless of how many times you refresh or start the program. The purpose of this is to track the recent images, faults and reliability between site visits, so it should be captured only once per site visit.	✓

Synchronize Option	Description	Default
Perform MPE 'FSave All' during each site visit?	When selected, NVS Tracker performs a **FSave** on MPE platesetters while synchronizing. It first checks the status of the platesetter, and delays the test if the system is in production mode. If cleared, NVS Tracker still monitors the status of the platesetter and alerts you to do backups should the thermal head serial number, Head code version or MPE/MCE firmware version change.	
Run 'Parameter Evaluation Utility' during each synchronization?	When selected, NVS Tracker tests the parameters for faults after it finishes synchronizing a system.	✓
Evaluate Staccato Wide-Narrow mode during each initialization?	When selected, NVS Tracker tests the wide narrow mode parameter setup, and reports any parameters that vary from each other	
Write NVS Tracker's current version into the Status Log header?	When selected, NVS Tracker adds the current program version to the status report when synchronizing.	✓
Enable 'Custom Commands' and execute during synchronization?	When selected, NVS Tracker executes up to 10 personal commands during synchronizing. These same commands can be executed by selecting **Tools > Execute Command List**.	
Synchronize NVS Tracker during program startup?	When selected, NVS Tracker attempts to synchronize and grab parameters on startup. You can select from Standard **Sync** and Quick **Sync**. The Quick Sync only queries the platesetter for model/client info so that it can synchronize supported tools. This reduces the synchronize time to about 20 seconds. If cleared, NVS Tracker attempts to connect with an external device, but will not know what type of system it is connected to. If no external device is detected, NVS Tracker disconnects and frees the comport until **Connect** is selected again.	
Auto-resume delay for entering CTP commands (in seconds)	After you enter MPE commands, they are erased/cleared if you pause for more than a few seconds between typing characters. You can choose to use a command box (like Service Shell Client) or choose to type your commands directly into the Terminal View Log (like ProComm Plus and HyperTerminal). When using the latter choice, NVS Tracker handles control of commands sent, and you can specify a 1 to 9 second delay between commands prior to NVS Tracker clearing the command. You can still press the back slash key to display the command that was being entered **Note:** While you are entering a command, the communications link is paused until the return key is pressed or the specified delay has timed out. This is to ensure that data being received does not interfere with you typing in the Terminal View Log.	5
Maximum size of Terminal View Log buffer (in Kilobytes)	You can specify the size of the scroll back buffer from 100 to 250 kilobytes.	100

3.3 Fonts and Colors

You can define the colors and fonts of the working environment for each log, Edit Mode, System Monitor fonts, and DataLink Parser Utility fonts.

To make it easier to distinguish between logs in use and indicate whether Edit Mode is enabled, you can set background colors and fonts for each log. Diagnostic Utility Font Colors make viewing the Diag Log easier when multiple utilities are writing data to the log.



Five individual search font colors are used to setup each search word for the DataLink Parser Utility. You can easily see the captured words/phrases in the Diag Log by their associated color entry. You can also set up these five colors in the DataLink Parser interface.

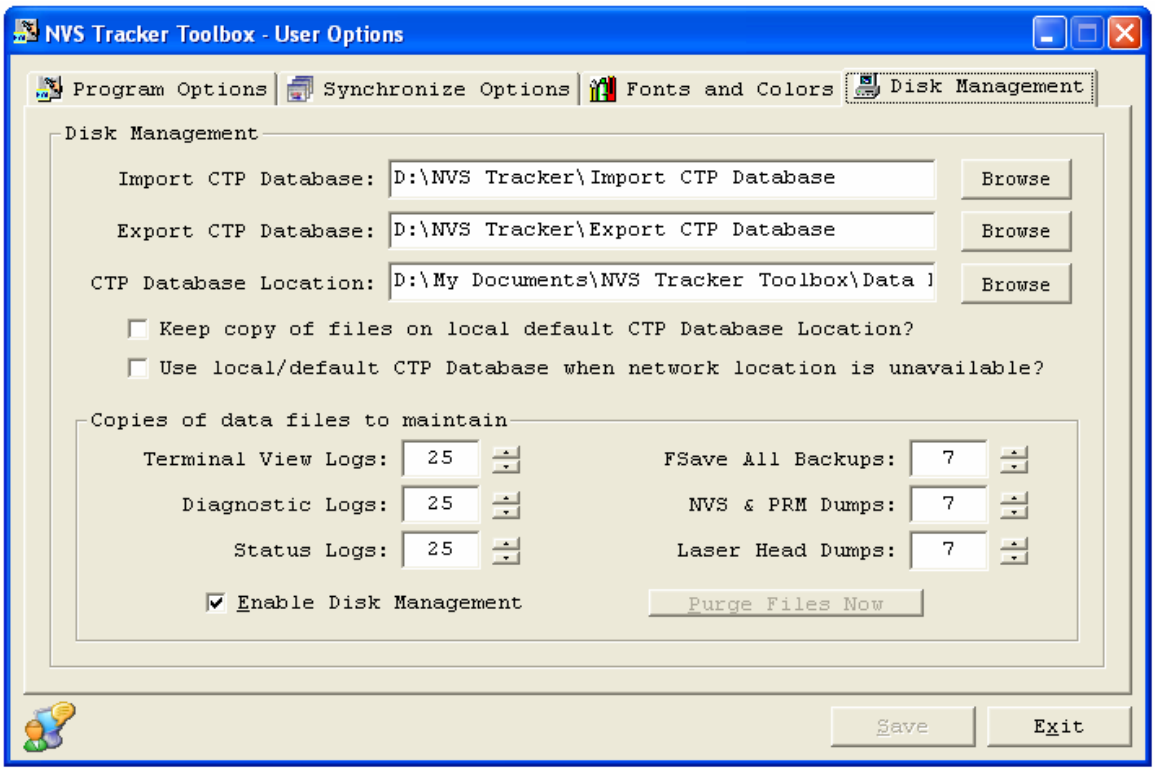
Choose the **System Monitor Font** colors for entries into the Diag Log to make it easier to distinguish its entries from other utility entries.

Use the **Terminal View Search** font with the DataLink Parser to highlight the captured search in the Terminal View log.

While in Edit Mode, you can highlight selected text in the color you specify in the **Edit Mode Highlight** font/color selection.

3.4 Disk Management

You can specify the location of various working directories. NVS Tracker provides built in Disk Management that keeps track of the number of logs and backups that it saves. This utility runs each time NVS Tracker synchronizes or refreshes.



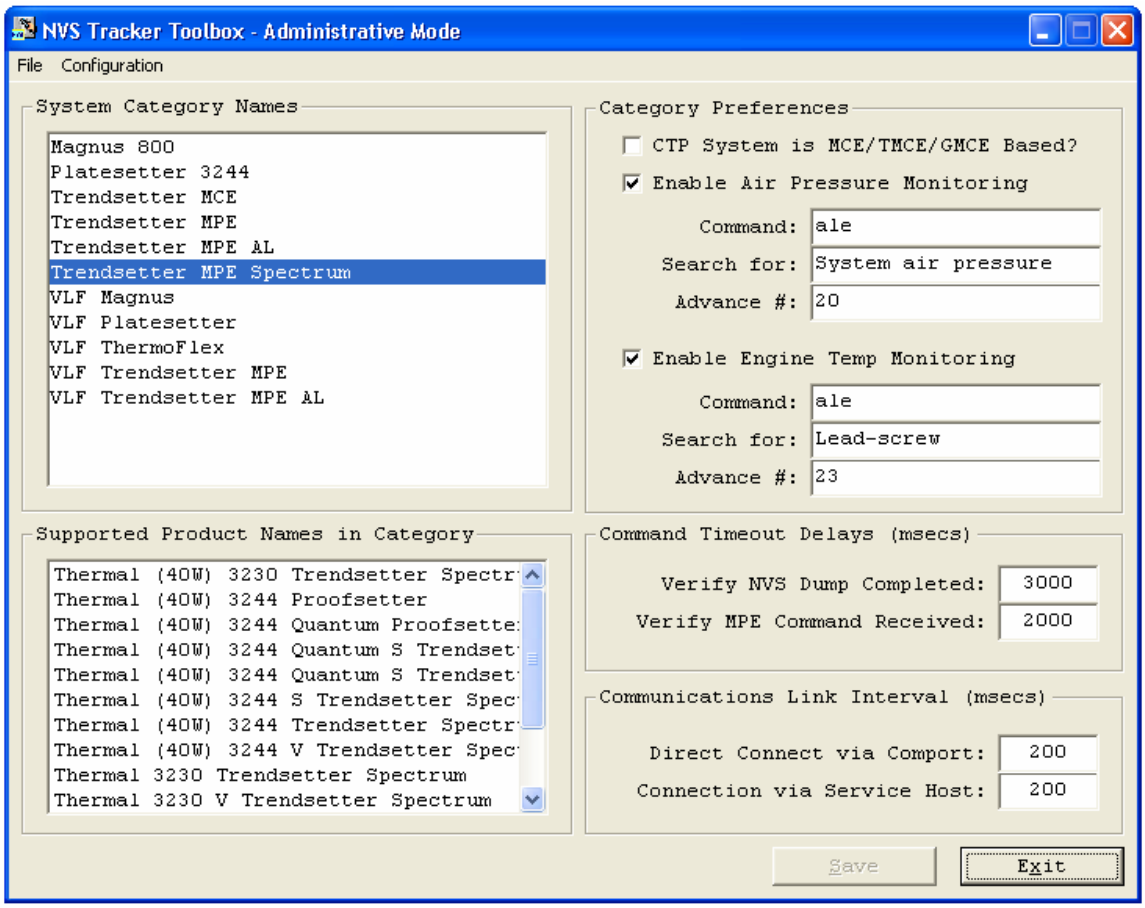
Purge Files Now becomes active whenever you decrement any of the log quantities. When selected, it searches the entire **\Data File** directory and deletes any quantities greater than the number you specify.

For information on the **Import** and **Export** features for NVS Tracker, see *Appendix E – Using the CTP Database*.

For information on the **CTP Database Location** feature for setting up your **\Data Files** directory, or how to setup a centralized server, see *Appendix D – Setting up a Centralized Database Server.*

4. GETTING STARTED

NVS Tracker is an empty, programmable framework that functions in a similar manner to ProComm Plus. It supports multiple platesetter system categories (each category supports up to 50 system models) that are defined by the NVS Tracker Administrator (refer to the *NVS Tracker Toolbox Administrator Guide* for more detail). All support grids for NVS Parameters are external to the NVS Tracker framework in the **\Supported Systems** directory, so that updates are done when firmware changes are made. Support grids can be e-mailed or downloaded, and then applied by dropping the **.dbase** file into the **\Supported Systems** directory. In Administrator Mode, you can enter system categories, product names, and information related to each product category:



The first time NVS Tracker synchronizes with a platesetter system, it creates a directory for the client's platesetter (called '\Data Files') and places the client's NVS Parameter reference grid in that directory. NVS Tracker checks the information stored in the configuration parameters to identify the type of system it is logging onto, the client's name, the system model and its serial number. If any of this data is missing, you will be queried to enter the information into a text box.

Note: Unsupported characters for customer name and platesetter serial number are (/ \ : ? * < > |).

NVS Tracker saves the data so it will be there the next time you log on to the system. If there is more than one platesetter system at a client site, enter the same client name into each system. NVS Tracker uses the client name and the platesetter serial number to

build the directory structure for storing logs (for example, **C:\NVS Tracker\Data Files\Quad Graphics\C105**).

This data capture occurs when you click on **Synchronize** not when you **Connect** to the device. Once you have synchronized, the Status Bar at the bottom of the window is updated with the client information that you selected in **User Options**. The client's NVS Parameters are also entered into the NVS Tracker CTP Database for diagnostic use.

4.1 NVS Tracker Starting Routine

The basic routine that occurs when NVS Tracker starts is:

1. Feature License is checked for proper authentication.
2. User option grid is loaded and user options are executed.
3. The CTP Database is loaded.
4. A mode selection window lets you choose **Comport Direct Mode**, or access the **CTP via Service Shell Host Mode**.
5. When **Connect** is selected, an attempt is made to connect to an external device.
6. Once connected, **Synchronize** is enabled for adding the client's NVS Parameters to the CTP Database.
7. The **Tools** menu is enabled, and the appropriate support tools are enabled depending on the **Connection State** of the NVS Tracker

4.2 Connection States

There are three possible connections states:

No device connected

NVS Tracker disconnects from the Service Host or Comport, and only enables the Parameter Evaluation Utility and Workstation Log Debugger. The CTP Database is enabled whether connected or not. The Edit Mode can also be used regardless of connection state. Until you synchronize NVS Tracker, the Status Bar is in the default Edit Mode view.

Device is connected

NVS Tracker enables the DataLink Utility, Custom Commands, and the Recent Commands List. These utilities do not require knowledge of the system type they are connected to, and are enabled whenever an external device is detected.

Device is synchronized

System Monitor, Drum Media (MPE only), and Staccato Checker (MPE only) are enabled. NVS Restore is only enabled when changes since the last site visit are detected. These changes are captured by the NVS Comparison routine during synchronization.

4.3 Synchronization

4.3.1 Basic Synchronize Routine

The basic routine that occurs when **Synchronize** is selected is:

1. The **Synchronize** button changes to **Synchronizing** and the **Progress Bar Display** pops up at the bottom of the form. The form is locked to prevent interference during NVS data logging. If connecting via the Service Shell Host, the Host is locked while synchronizing.

2. If **redirect enabled** is active, then **redirect disabled** is executed so that you are communicating directly with the device firmware. If you are talking to a TH3 head or a MCE2 board, then communications will switch back to Channel 1 (the main MCE or GMCE board).

3. A quick check is performed to see if the platesetter is in use for production and if there is a good data connection to the platesetter. A prompt asks if you wish to continue if production is in progress (**Note:** Select **No** unless you are sure that an NVS Dump/PRM Dump will not interfere with system performance while production is running on the system).

4. If **Disable Verbosity** is selected under **Custom Init**, verbosity is disabled. Verbosity will also be disabled for TH2 and TH3 heads while backing up their PRM data.

5. The platesetter is queried for system type and the appropriate category support module is loaded to control the data logging of the NVS Parameters. If the system model# is not listed in the **Supported Systems** list, then a list of CTP categories will be displayed for you to assign the current CTP model# to. The system model# will then be added to the registered list of supported systems.

6. When the system finds the current device on its support list, NVS Tracker enables the Status Log and switches to it as it starts to build the system status report. This report shows the client's hardware information, usage statistics, any NVS Parameters that have been altered since the last logon, and any faults found from running the Parameter Evaluation Utility. Parameter changes are also logged to the client's NVS History log, which keeps a complete history of all parameter changes and upgrades. If selected, Staccato checks are also run for narrow/wide mode parameter setup on MPE based systems.

7. Once NVS Tracker is synchronized, the appropriate support tools are enabled under the **Tools** menu and the Status Bar is updated with the current system specs specified under **User Options**.

8. NVS Tracker captures the hardware version levels (fw dir) and satellite version levels and pastes them at the end of the Status Log for MPE-based platesetters.

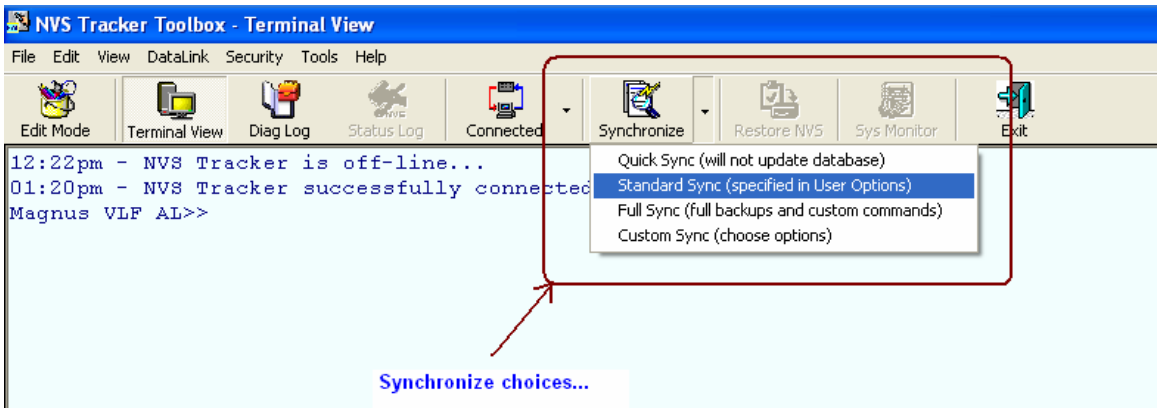
9. If **User Options > Custom Commands** is selected, NVS Tracker then executes the list of custom commands, and logs the results to the Terminal View. This is handy for grabbing the latest stroke/scorr tables, laser currents, platesetter state data, and so on.

10. The **Synchronize** button caption is changed to **Refresh**, the **Progress Bar Display** is minimized, and control is returned to you. NVS Tracker is fully ready for use.

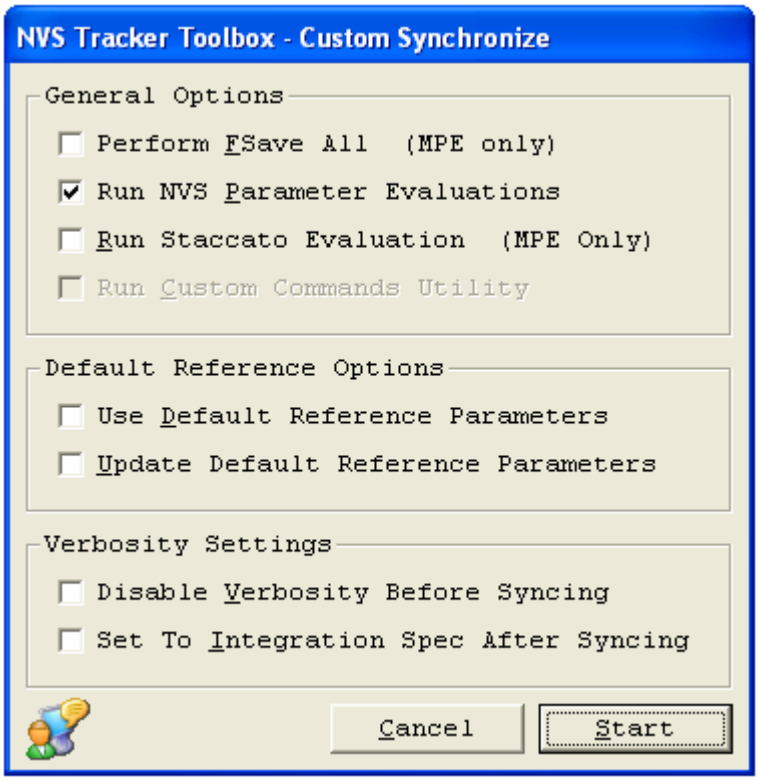
4.3.2 Synchronize Methods

There are a few options for overriding the Standard Synchronize routine:

- **Quick Sync** – does not update the CTP Database, but only queries the platesetter for the head type, serial number, and client name. It then enables any supported tools and populates the Status Bar with your selections.
- **Standard Sync** – uses the choices in the **User Options** as a standard base for how to synchronize the system. This includes selecting whether to do MPE Fsaves, perform a Staccato setup evaluation, perform a NVS Parameter tolerance evaluation, and/or custom commands. Click on the main toolbar **Synchronize** button, instead of the dropdown menu, to execute a Standard Synchronize.
- **Full Sync** –overrides the **User Options** and performs full backups, Staccato setup evaluation, NVS Parameter evaluation and custom commands.
- **Custom Sync** –overrides the **User Options** and allows you to select which options take place during the synchronize routine. You can update the system default reference grid and choose to use the default reference grid while synchronizing. For more information, see *Custom Choices for Synchronizing.*



Custom Choices for Synchronizing



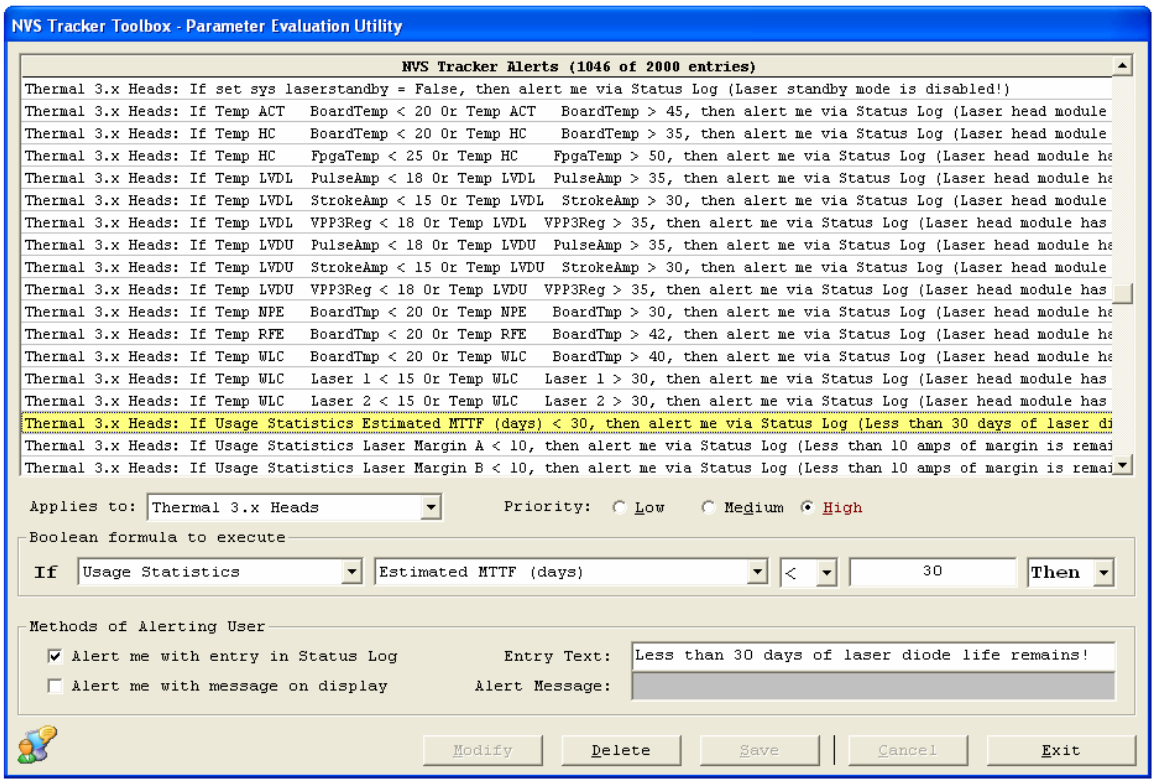
General Options	
Perform FSave All (MPE only)	Only enabled for MPE systems—forces an FSave if system is not running production
Run NVS Parameter Evaluation	Evaluates the NVS Parameters for faults when synchronizing is completed
Run Staccato Evaluation (MPE only)	Only enabled for MPE based systems—evaluates the narrow vs. wide based parameters. It generates a list if any parameters are not equal to each other (that is, **`hdm ds`** should equal **`hdm dsn`**).
Run Custom Commands Utility	Enabled if you have programmed commands into the Custom Command utility to be executed after synchronizing is completed.
Default Reference Options	
Use Default Reference Parameters	Uses the Default Reference grid instead of the last grid created when synchronizing.
Update Default Reference Parameters	Update the Default Reference grid whenever you install a new thermal head (after you verify the head works), or whenever a major change is made to the system that would vary the once 'Known Good' parameters. The Default Reference grid is automatically created the first time you log onto a system that does not have one. The Default Reference grid is used as a standard for returning a system to a 'Known Good Condition'.

Verbosity Settings	
Disable Verbosity Before Syncing	Disables verbosity prior to synchronizing with a system.
Set To Integration Spec After Syncing	Sets up verbosity to the integration specification after synchronizing with a system.

5. TOOLS AND UTILITIES

5.1 Parameter Evaluation Utility

The **Parameter Evaluation Utility** is integrated with the CTP Database –Show Faults Utility, and you can set it up for evaluating parameters.



The image above shows a screen capture of the Parameter Evaluation Utility database, which can store up to 2000 Boolean equations to evaluate a platesetter System/Laser Head. Each time you synchronize NVS Tracker, the data that is captured in the CTP Database is compared against any related system modules in this database. If any faults are found (equation = True), the Status Log is updated with the fault.

When entering new equations, the utility automatically displays the available commands and parameters for whatever system you select under the system menu. This parameter data is from the NVS parameter grids that the NVS Tracker Administrator enters into the system. You can build either a single equation or a dual comparison equation. Priorities are assigned to the alert, and it will color code the text entry in the Status Log according to the alert's priority: Low = Black, Medium = Blue, High = Red. The Parameter Evaluation Utility supports both integer comparisons and word comparisons (that is, True, False, Enabled, Disabled).

To update a programmed equation, click on the equation and the display at the bottom of the form updates with the current selection. If you make any changes to the equation, the **Modify** button is enabled and you can save the changes. The **Delete** button is always enabled whenever any selection is highlighted in the display list. The **Save** button is enabled whenever you enter a new equation.

5.2 NVS Backups

NVS Tracker automatically creates the directory structure, performs backups, and evaluates them for integrity, then saves them on the hard drive. The status of each backup is written to the Status Log when you synchronize.

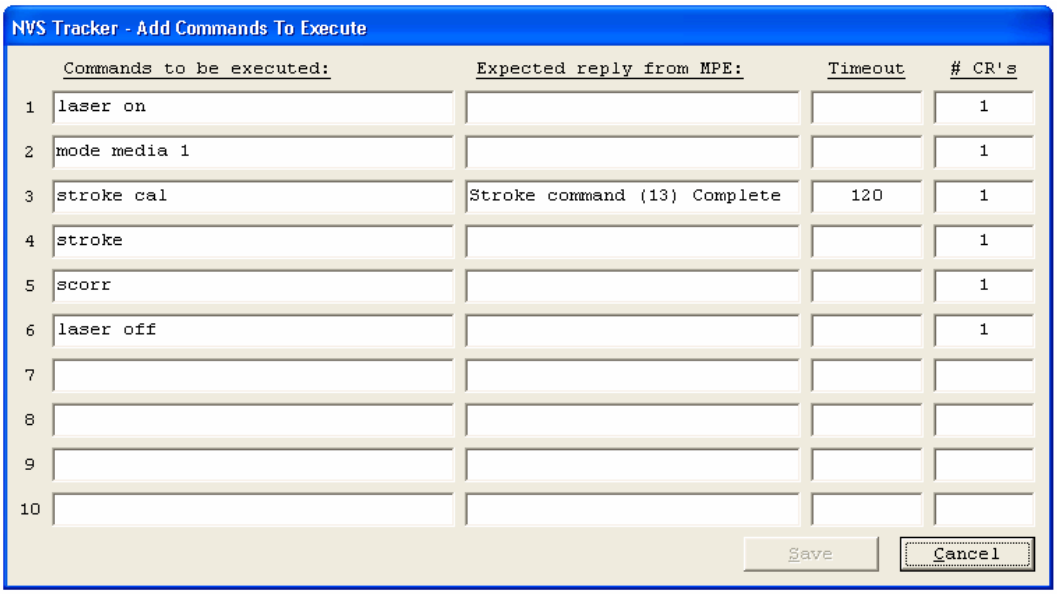
MPE FSave - you can run an FSave automatically with each site visit (selected under **User Options**). During synchronizing or refreshing, if the firmware version or head code have changed, or if a new thermal head serial number is detected, NVS Tracker will automatically capture a new FSave to reflect the system changes.

5.3 Drum Media Status

This utility quickly displays the currently loaded or last-loaded media on the drum. You can switch the display between metric and Imperial measure. It also displays the current state of the media, and you can clear any fault conditions associated with the media. This is enabled for MPE systems only.

5.4 Executing Custom Command List

NVS Tracker can automatically execute up to 10 additional custom commands while it is synchronizing/refreshing. This is useful for capturing and logging data that is not captured in an NVS Dump. The information that it captures is written to the Terminal View, and is automatically saved to the hard drive.



Tools > **Execute Custom Commands** is enabled whenever you are connected to a system, have the option selected under **User Options**, and have entries in the **Command List**. Select this option to execute your custom commands at any time.

Because some commands take longer to execute than others, you can enter a word or phrase to wait for (prior to executing the next command on the list). By waiting for a reply from the MPE (for example, **`Stroke`** command (13) Complete), you ensure that the command has fully executed prior to sending the next command in the list. When waiting on an expected reply from the MPE, you can assign a time-out value to allow additional wait time before continuing (standard wait time is about 5 seconds). You can also specify how many carriage returns to be sent with the command so that all of the data is captured from the command (for example, **`set head`** requires 4 carriage returns to display its 4 pages of data).

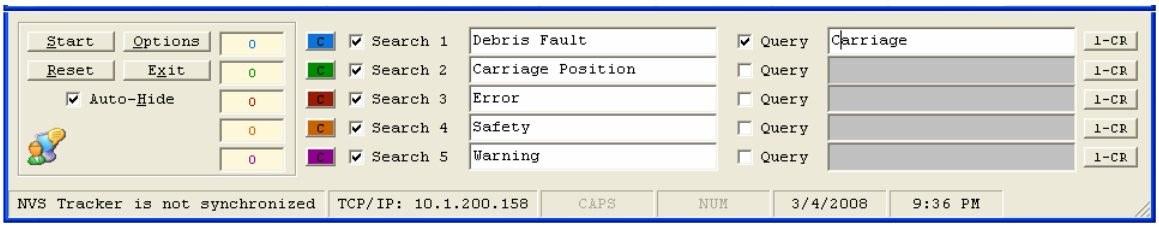
5.5 NVS Restore

The NVS Restore utility is enabled whenever NVS Tracker synchronizes and the NVS Compare routine finds changes that were made to the system since the last site visit. These changes are recorded in the Status Log, but are also entered into a list box in NVS Restore. When the first parameter is entered, the **Tools** option for NVS Restore is enabled. You can then select exactly which parameters to restore. The restored parameters are removed from the list box and the appropriate command is sent to the MPE to restore the previous value. These values are not saved (**`NVS Save`** is not performed).

Note: Be very careful which parameters you choose to restore! If a head replacement was done, the parameters may be invalid for the new head. If the Head Code / MPE Firmware were upgraded, certain parameters may not exist any more.

5.6 DataLink Parser Utility (data filter)

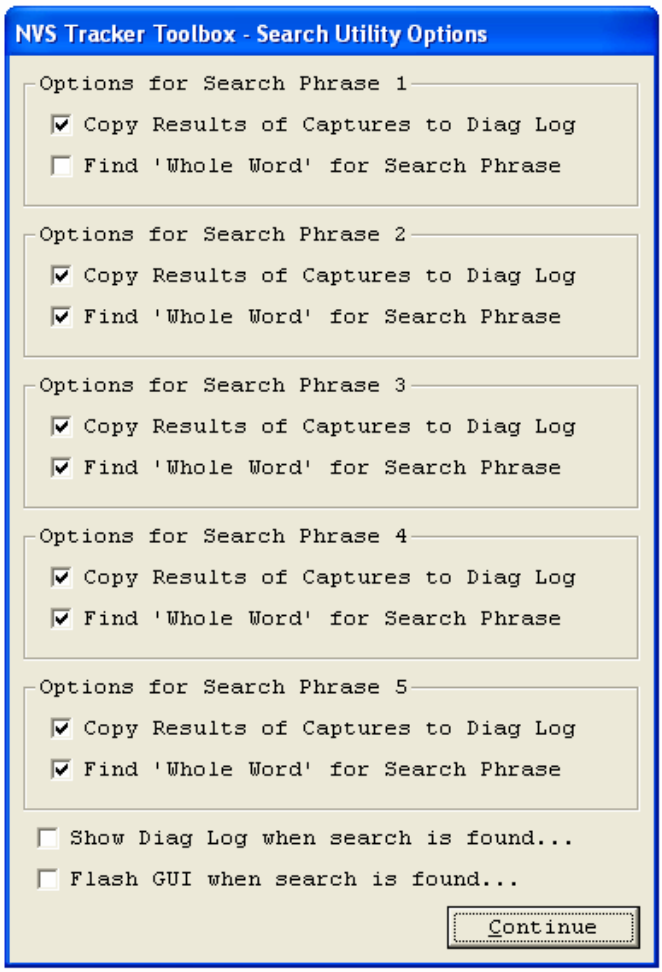
You can use the DataLink Parser Utility to track intermittent problems over long periods of time. You can execute up to five consecutive searches simultaneously, as well as, run the System Monitor to track environmental fluctuations and edge detect quality, or use the keyboard to execute commands during searching.



When a search string is found, the text is highlighted in the Terminal View log with the Search Font color that you select under **User Options > Fonts Selection**. The complete line is copied from the Terminal View log to the Diag Log with a Date/Time stamp and color code for easier tracking/viewing. Though the data can scroll out of the buffer on the Terminal View (buffer is selectable from 100K to 250K), the Diag Log has a capacity of 2GB (limited by hard disk space only).

You can also query the platesetter for additional data when a search string has been found. For example, in the display above, we were searching for a debris fault. When a debris fault occurs, the **`carriage`** command is executed, and the **`carriage position`** is captured and recorded in the Diag Log. If the fault occurs a few times at a similar carriage position, this would indicate a break in the debris hose along the carriage track.

5.6.1 DataLink Parser Utility Options



For each search, you can:

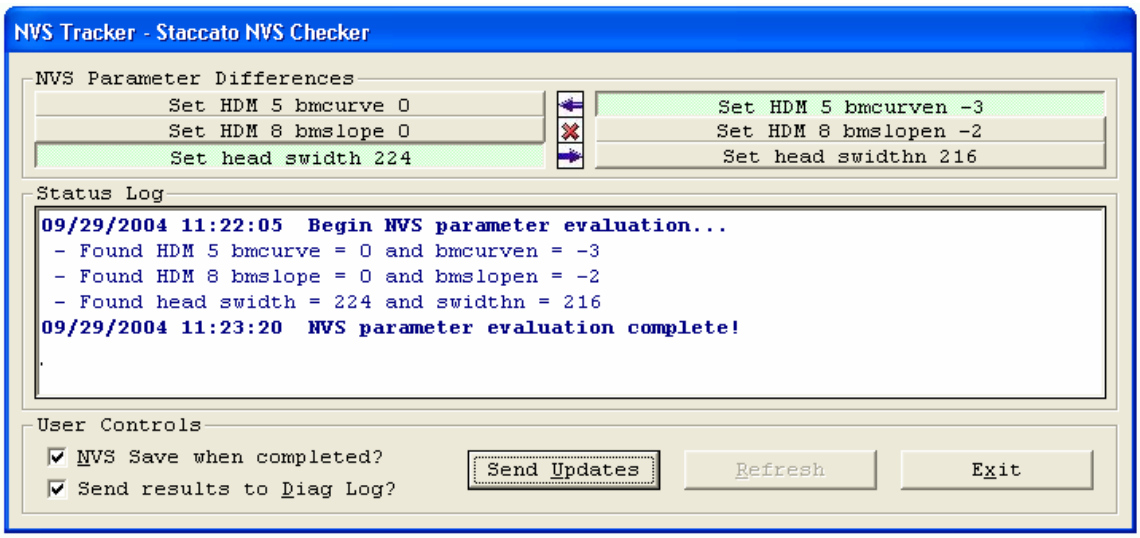
- Select **Copy results of Captures to Diag Log** to record the search results.
- Select **Find 'Whole Word' for Search Phrase** or clear the check box for a portion of the word or phrase.

Select **Show Diag Log when search is found** to make the Diag Log pop up when a capture is made. NVS Tracker will also display if you are working in another application.

Select **Flash GUI when search is found** to flash a **New Capture** message for each capture made by the DataLink Parser Utility. The message background color is the same color as the font color for the search word/phrase.

5.7 Staccato NVS Checker

Use Staccato NVS Checker to evaluate the narrow and wide mode parameters in MPE platesetters, and list any parameter groups that have different values.



In the following example HDM 5 bmcurve = 0 and HDM 5 bmcurven = -3. You select which parameter to use as a reference (highlighted in green), and the parameter value is copied to the related parameter. Arrows show which parameter values will transfer to the related groups. If no parameters are selected for a specific group, then none will be altered for that group, and a red **X** is the transfer icon.

You can also auto-save the parameters when you complete the update. Save test results to the Diag Log and save then to disk for future reference.

The current parameters evaluated for MPE devices are:

- **HDM ds / dsn**
- **HDM wpower / wpowern**
- **HDM bmslope / bmslopen**
- **HDM bmcurve / bmcurven**
- **HDM sv / svn**
- **HDM swidth / swidthn (for later versions of head code)**
- **HDM soffset / soffsetn (for later versions of head code)**
- **Head swidth / swidthn**
- **Head soffset / soffsetn**
- **Media ow / own**
- **Media owp / owpn**

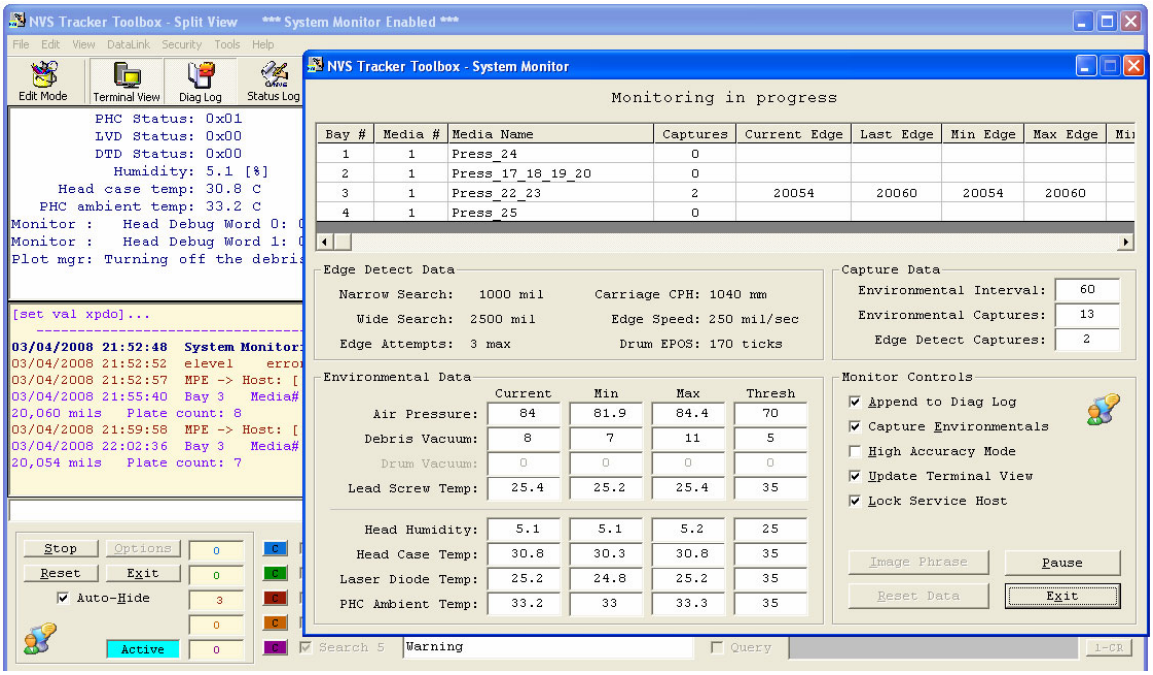
Staccato NVS Checker first tests to see if **ow/owp** are in use by Media. If not, it skips these checks. It also monitors which modules (Head, Media and HDM) you update parameters to, and only performs an NVS Save for those modules.

5.8 System Monitor

The System Monitor consists of an Edge Detect Monitor and an Environmental Monitor. Together they monitor the platesetter system's internal operating environment, quality of plate loading/edge detection and focusing issues with the laser head.

5.8.1 Edge Detect Data

The edge-detect portion captures the accuracy for how plates load onto the drum, whether the plates are loaded manually by an operator, or by an automated system with cassette bays. When monitoring an automated system, additional diag routines run that calculate the accuracy of bay alignments and **`carriage cph`** setup.



On startup, the information from each bay is loaded into the monitor's display. You can run the monitor in high accuracy mode in order to display results to thousandths of mils instead of mils. The monitor captures each edge detection within a couple of seconds after the engine starts imaging. The display tracks the following:

- total number of captures for each media
- min/max error for each media
- difference of min/max (total edge error)
- media false edges or failed edges for MPE based systems
- focus learn, media out of range, & focus tracking for MCE based systems
- plates/hour for each media size listed (after 3 captures minimum/media)
- time of last capture

You can run this monitor in the background while you use the NVS Tracker Terminal View. It takes control of NVS Tracker's Terminal View (disables the keyboard) for a few seconds while recording the most recent edge detect data of each plate, then returns control to the Terminal View.

Select **Append to Diag Log** to write the results of each capture to the Diag Log for viewing/saving.

For MPE based systems, should any media's edge results be greater than 50% of the current esearch of the last media tested, an additional error in the Diag Log states that a second edge detect attempt is required. This same routine also monitors whether 50% of wsearch is exceeded, or if edge detect will fail because the total value of wsearch is exceeded.

5.8.2 Environmental Data

The environmental portion monitors the system's internal operating environment over a long period of time. It keeps track of individual data for each reading (the current, min and max). It can also monitor a threshold for each reading, which the user can setup for troubleshooting purposes. The value of any component that exceeds the threshold is entered into the Diag Log with a time-date stamp.

Example 1: You may want to set a threshold of 75 PSI for a Trendsetter 3244 Autoloader, and have an alert written in the Diag Log if the internal air pressure drops from 90 to 75. The alert would also indicate the value that the air pressure dropped to.

Example 2: A site had a 20 watt head cooling fan failing. The head case temperature would rise and imaging would stop once the head got hot enough. This resulted in partially blank plates. The Environmental Monitor showed the log plotting the temperature rising.

The environmental portion records system **Air Pressure** (if the system supports it), **Head Humidity**, **Head Case Temp**, **Laser Diode Temp**, **PHC Ambient Temp**, engine **Lead Screw Temp, Drum Vacuum and Debris Vacuum**. You can set individual thresholds for each of these while the monitor is paused (or not started). You can also set how often to update the **Environmental Captures** using the **Environmental Interval** (from 10 to 60 second intervals). Additional voltages, temps and currents are captured with TH2 and TH3 laser heads (not shown).

The System Monitor works in the background and shares the keyboard port. If the System Monitor is capturing data when you try to type on the keyboard, a message alerts you to wait for a moment. It takes less than 10 seconds (average 5 seconds) to complete a capture and return keyboard control. If you are typing when the System Monitor requires access, it will postpone the edge detect capture and give you priority. This priority wait time lasts until 7 seconds after you stop executing commands. When exiting or resetting the System Monitor, the final captured results from the monitor's display can be written to the Diag Log. All edge detect faults and focusing faults are recorded for each media size that ran, which makes an excellent troubleshooting tool for isolating batch-related media issues.

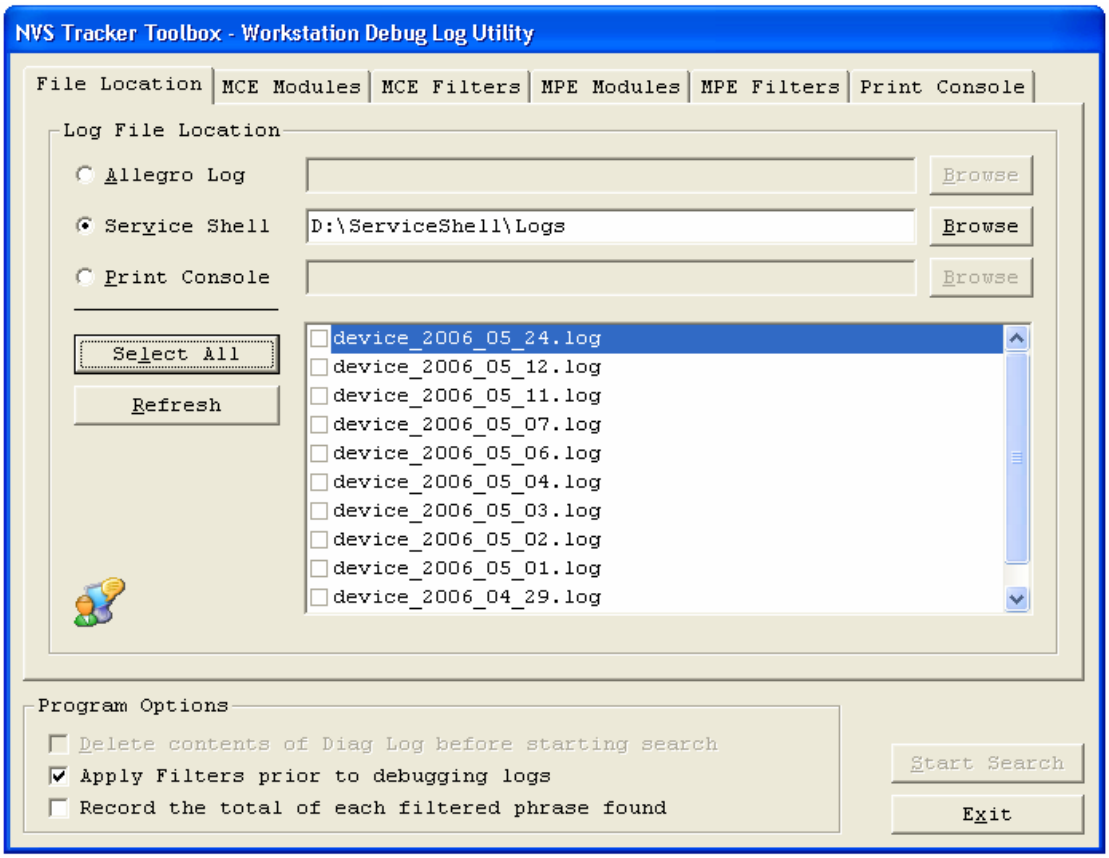
5.9 Workstation Log Debugger

The Workstation Log Debugger works with Allegro 1.7/Platesetter Console style logs, Print Console version logs and with Service Shell log files.

The older Allegro log files are not easily read, and the date format within the log is a 10 digit number representing time in seconds since 1970 (an engineering standard for programming). This file is normally located at **\Platesetter\Logs\ctpws.log** or **\Trendsetter\Logs\ctpws.log**. An example of old style Allegro debug log:

```
3/962903562*4~&500~&20482~&-1~&-1~&Miscellaneous: Temperature log: Engine = 250 Leadscrew
= 260~&0~&0~&
3/962903563*4~&502~&20482~&-1~&-1~&Miscellaneous: NVS modified and saved, but not backed
up!~&0~&0~&
2/962903760*M1000~&0~&
3/962903788*3~&3043~&20480~&42~&41~& Display list size in memory = 94656 Kb ~&0~&0~&
3/962903792*3~&15203~&20482~&-1~&-1~&Autoloader: waiting for the previous plate to clear
the conveyor~&0~&0~&
2/962903968*M1000~&0~&
```

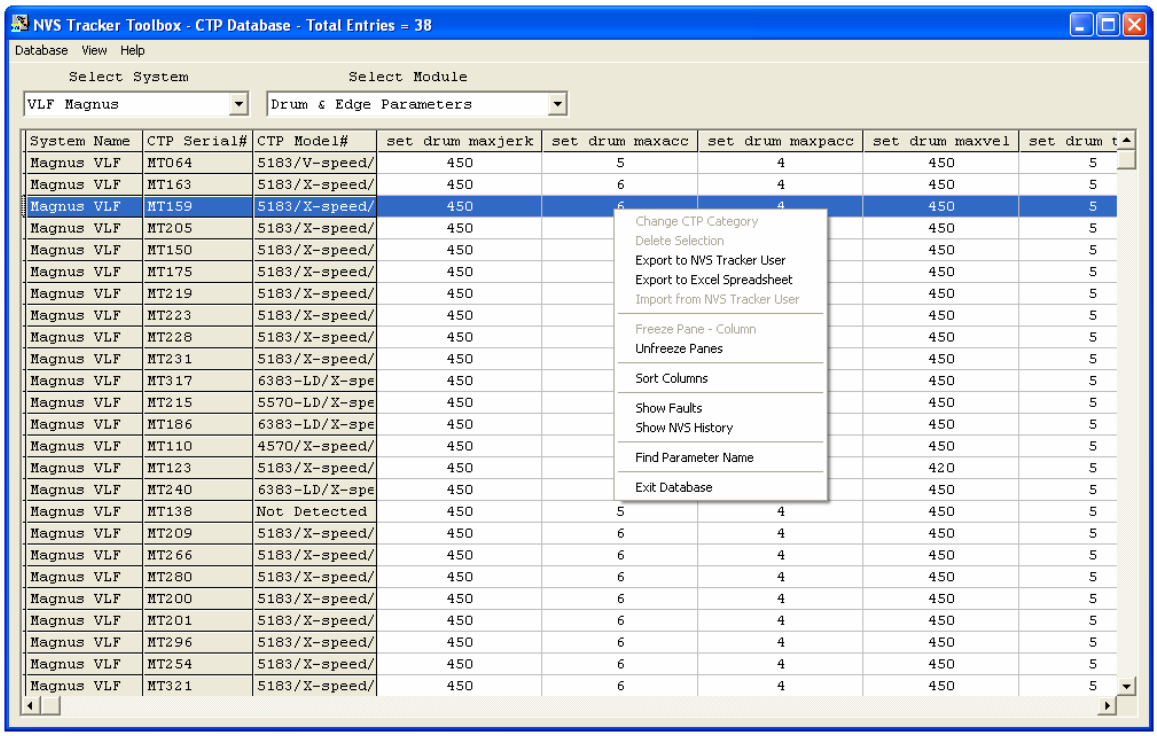
You can parse the log with selectable filters and customizable filters. The customizable filters are saved and reloaded when you start NVS Tracker Toolbox. Log results are grouped by the CTP Modules that they are associated with (Exposure head, drum, carriage, and so on).



This utility has a limited buffer size. It will not load files larger than 5MB. For files greater than 5MB, you must manually clip portions of text from the log files to reduce the file size to less than 5MB prior to debugging.

6. CTP DATABASE

Use the CTP Database for on-line/off-line access to all parameters stored within client's systems. As you continue to synchronize with new systems, the system models are added to the **Select System** drop down list. Only system models that you have synchronized with are displayed here.



System Name	CTP Serial#	CTP Model#	set drum maxjerk	set drum maxacc	set drum maxpacc	set drum maxvel	set drum t
Magnus VLF	MT064	5183/V-speed/	450	5	4	450	5
Magnus VLF	MT163	5183/X-speed/	450	6	4	450	5
Magnus VLF	MT159	5183/X-speed/	450	6	4	450	5
Magnus VLF	MT205	5183/X-speed/	450			450	5
Magnus VLF	MT150	5183/X-speed/	450			450	5
Magnus VLF	MT175	5183/X-speed/	450			450	5
Magnus VLF	MT219	5183/X-speed/	450			450	5
Magnus VLF	MT223	5183/X-speed/	450			450	5
Magnus VLF	MT228	5183/X-speed/	450			450	5
Magnus VLF	MT231	5183/X-speed/	450			450	5
Magnus VLF	MT317	6383-LD/X-spe	450			450	5
Magnus VLF	MT215	5570-LD/X-spe	450			450	5
Magnus VLF	MT186	6383-LD/X-spe	450			450	5
Magnus VLF	MT110	4570/X-speed/	450			450	5
Magnus VLF	MT123	5183/X-speed/	450			420	5
Magnus VLF	MT240	6383-LD/X-spe	450			450	5
Magnus VLF	MT138	Not Detected	450	5	4	450	5
Magnus VLF	MT209	5183/X-speed/	450	6	4	450	5
Magnus VLF	MT266	5183/X-speed/	450	6	4	450	5
Magnus VLF	MT280	5183/X-speed/	450	6	4	450	5
Magnus VLF	MT200	5183/X-speed/	450	6	4	450	5
Magnus VLF	MT201	5183/X-speed/	450	6	4	450	5
Magnus VLF	MT296	5183/X-speed/	450	6	4	450	5
Magnus VLF	MT254	5183/X-speed/	450	6	4	450	5
Magnus VLF	MT321	5183/X-speed/	450	6	4	450	5

When you select a system, the parameter groups are displayed under **Select Module** as defined by the NVS Tracker Administrator (see *NVS Tracker Toolbox Administrator Guide*). This is an effective troubleshooting tool because you can see all your system parameters in related columns. For example, one column shows all **`set drum maxacc`** parameters and the next column shows **`set drum maxpacc (`**you can quickly see if parameters are not set to within a working tolerance of similar system types).

When connected to a system with NVS Tracker synchronized, the related row in the CTP Database is in **bold** type for easier viewing. The CTP Database is in a separate window and can be used while other tools are in use. The database automatically closes if you choose to **Synchronize** or **Refresh** the NVS Tracker.

The CTP Database can freeze column panes for easier parameter viewing. You can also sort columns for evaluating the statistics within each column. To do this, click **Freeze Pane - Column** or **Sort Columns** and then select the column you wish to freeze or sort.

If you are searching for a particular parameter in the column header, you can select Find Parameter Name. This will cause all columns to collapse except the columns that meet the search criteria.

If you desire to chart any of your data, you can select to **Export to Excel Spreadsheet**. This feature requires you to have Excel installed on your computer.

Your CTP Database can be shared with other NVS Tracker users so that they can view the status of your sites. By selecting **Export to NVS Tracker User**, you can export a

single client, or select a variety of system types (including **All Systems**) to be exported as a group. These exported files are placed in the **\Export** directory (specified in **User Options**).

If you receive files from a NVS Tracker user, place them in your **\Import** directory (specified in **User Options**) and **Import Log** is activated. Click **Import Log** to load the files and copy them to your database. If the files are already in your database, they are only copied if they have newer data. The files in your **\Import** directory are deleted after import so make copies if you want to pass it on to others in your group.

Note: Only the database file is imported, not the history of NVS Dumps, FSaves, Status Logs, and so on. The directory structure for these logs is created when you log onto a system, not when you import a file.

To purge a client from your database, select the client and then select **Delete**. Select **Yes** to confirm that you want to remove the data from the database. This also purges the client's directory from your hard drive, including all the backups and associated log files. **Delete** is *only* enabled when **All Systems** is selected and a client is selected on the display.

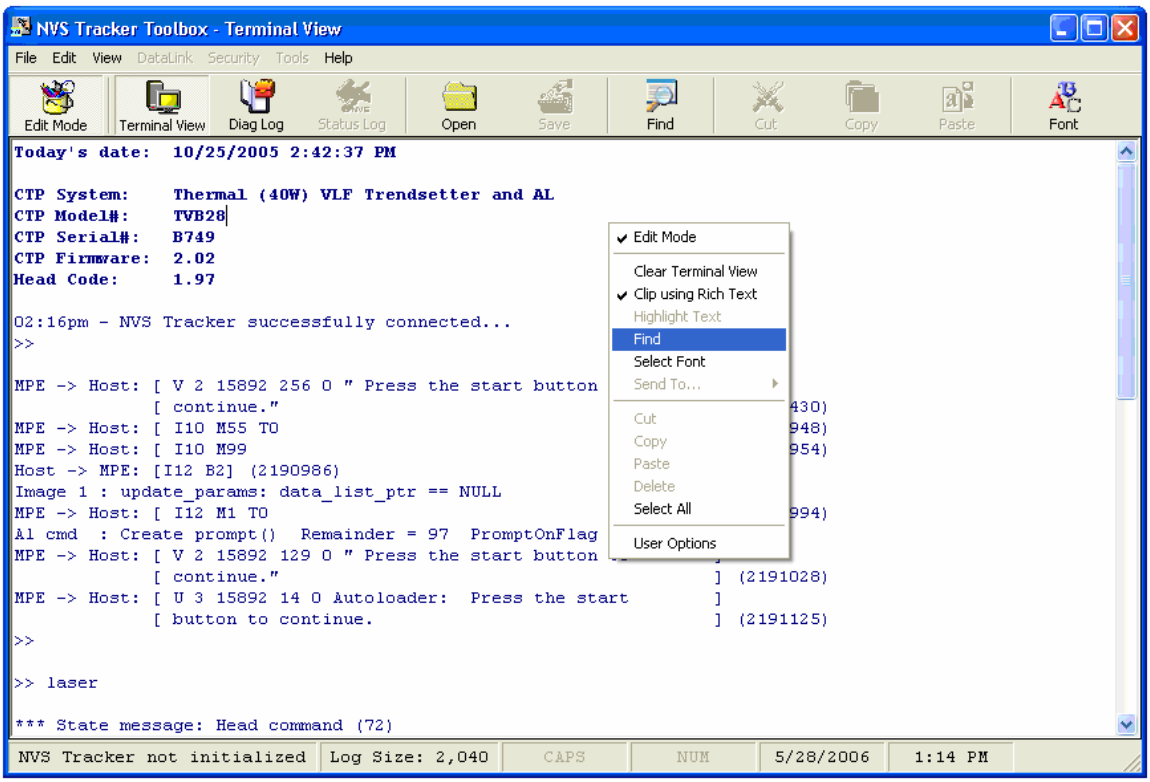
Show Faults integrates with the **Parameter Evaluation Utility**, and evaluates any systems that are currently being displayed. The CTP Database is cleared and only the systems with faults found are displayed. **Hide Faults** is displayed. Click to return the display to its original selection. You can also use **Show Faults** to enable the Diag Log, and build a report of the faults found. You can save this report to the hard drive from the Diag Log.

Centralized Database: see *Appendix D – Setting up a Centralized Database Server* for more details on how to connect to a centralized database.

See *Appendix E – Using the CTP Database* for more details.

7. EDIT MODE

The logs used in NVS Tracker are very similar to those in the Microsoft® WordPad text editor. All the functions in WordPad are supported: graphics, bulleting, multi-size/color fonts, clip/paste and up to 2GB of data entry. NVS Tracker has some useful editing tools that are only available in **Edit Mode**. Click **Edit Mode** in the toolbar or select **Edit > Edit Mode** or right-click in the popup while Edit Mode is active. The Edit Mode can be used for an unlimited amount of time, but deactivates after 20 minutes of inactivity.

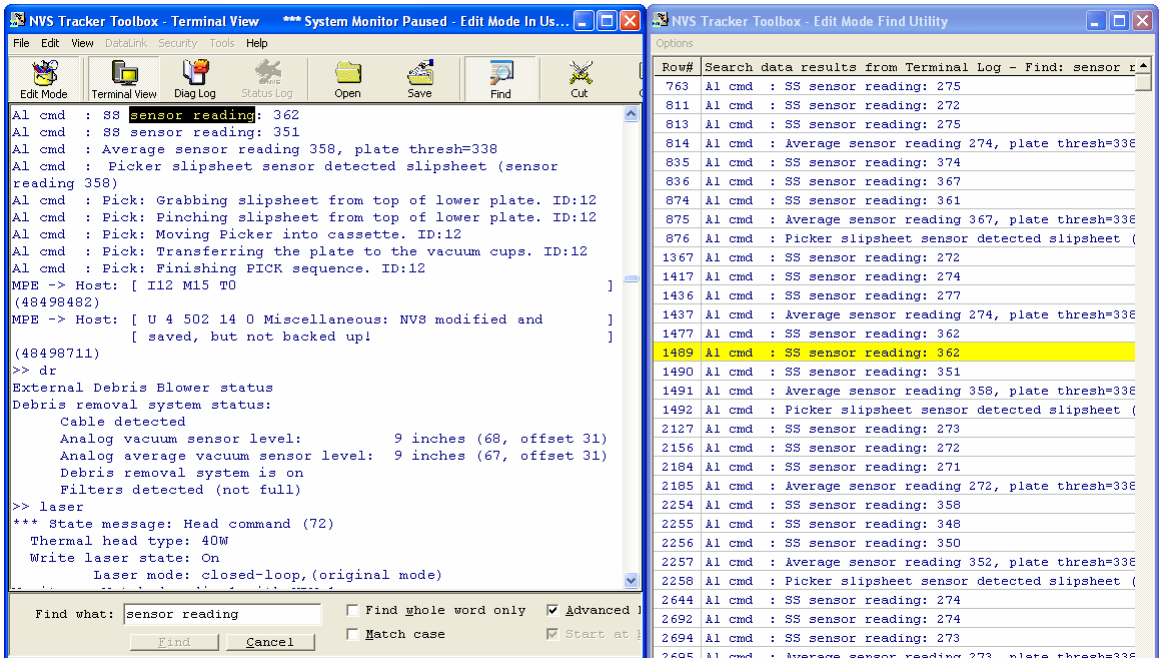


If you select **Edit Mode** while you are connected to a system, the data sent to the Terminal View log is redirected into a storage buffer until you exit Edit Mode. Once you exit Edit Mode, the data is pasted from the storage buffer to the end of the Terminal View log, and communications return to normal. This prevents the information from scrolling on the screen while you are editing. It also ensures that NVS Tracker does not cause any loss of data to the Terminal View from the MPE device. The Status Bar indicates the size of the storage buffer while you are editing. The DataLink Parser Utility and the System Monitor passively wait while the Edit Mode is active.

You can only use Edit Mode for the Terminal View and the Diag Log. The Status Log cannot be edited from within NVS Tracker so that the report of current system parameters is not altered. This report is designed to be a future reference and NVS Tracker maintains its accuracy.

If you click **Find** in the toolbar or select **Edit > Find** in Edit Mode you can access an **Advance Find** feature. Use the Edit Mode's Advance Find function to extract all specified phrases from the Terminal View log and display them in a list box. When you click a fault in the list box, the Terminal View log scrolls to the specific area in the log

where the fault occurred. You can efficiently navigate through the Terminal View log to research the reason that a specific fault may be occurring. See the example below.



8. SECURITY FEATURES

NVS Tracker has three security features that limit access to unauthorized users.

- In **File > Auto Log-Off,** an inactivity timer defaults to 12 hours. If you leave NVS Tracker unattended for 12 hours, NVS Tracker will save its data and terminate. You can specify a length of time for the inactivity timer or disable it.
- Use **Lock NVS Tracker** if you are running NVS Tracker on a client's workstation to prevent access by others. NVS Tracker continues to function but disables the GUI until you enter the unlock password. This only locks the NVS Tracker and prevents others from monitoring the Terminal View and log files.
- Feature Licensing: NVS Tracker will not start unless you have proper authentication from the Feature License Server. Use a Service Dongle as you do with Service Shell.

9. ADMINISTRATOR MODE

Use **Security > Administrator Mode** with password protection to prevent untrained users from modifying the parameter database and potentially damaging the structure of NVS Parameter grids.

In Administrator Mode you can:

- assign timeouts for capturing commands and dumps
- enable NVS Tracker Tools for specific systems
- design how the Status Log report is written

- enter systems to be supported, and enter NVS Parameter tables to be captured for each system

See the *NVS Tracker Toolbox Administrator Guide* for details on setting up the Administrator Mode.

Use a limited access password to maintain the Supported Systems list. This is the same system password as that used for system security. Use unlimited access so that trained administrators can perform the various administration tasks needed for NVS Tracker to function. For more details, see *Appendix F – Assigning CTP Categories to Systems*.

10. EVENT LOG

Use **View > Event Log** to view errors that have occurred while using NVS Tracker, to view a record systems you have synchronized with, and to track software upgrades. Its purpose is only as a reference for troubleshooting program events.

11. HELP MENU

Use the context-sensitive help in NVS Tracker to display help files for the utilities within NVS Tracker. You can display or hide information icons on the various forms.

NVS Tracker also offers a **Help Assistant** with 'Did You Know' information tips when you first install the program. This **Help Assistant** is launched each time you start NVS Tracker, offering a new tip on how to optimize your experience with the program. The **Help Assistant** can be disabled under the **Help** menu by selecting '**Hide Help Assistant'**.

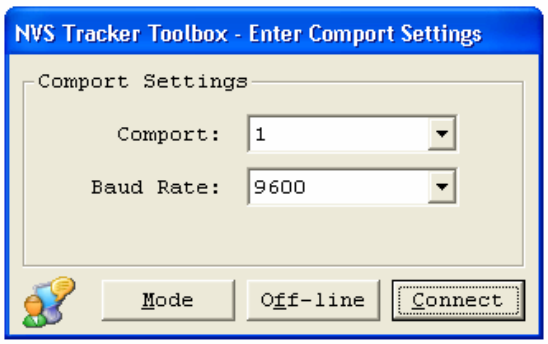
APPENDIX A - COMMUNICATION MODES

NVS Tracker provides two choices of communication to the external device. When offline (not connected to an external device), use the **Datalink** menu.

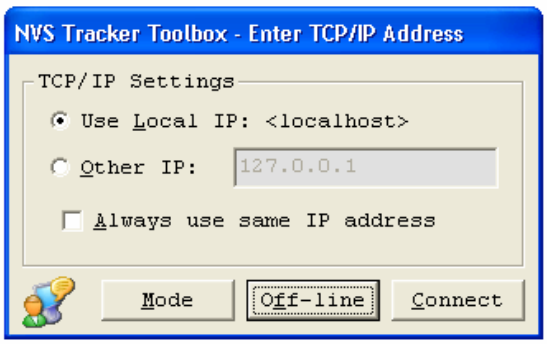
In **Comport Mode** (direct connect) you connect directly to the external device via the computer's comport. This mode supports standard ACSII and can be used with MPE and MCE based devices. Comport mode cannot be used with GMCE devices.

In **Service Host Mode** (via Service Shell Host) you connect via TCP/IP to a Service Shell Host. This mode allows port sharing to the external device and behaves as a Service Shell Client. It can be used with MPE, MCE, and GMCE devices. You can also use the **TalkTo TH3** command to channel to a thermal 3 head. In Service Host Mode, you can specify an alternate IP address that lets you connect to client sites remotely via the RSS Server. NVS Tracker stores the previous 25 IP addresses that you were connected to for future reference.

Comport Mode



Service Host Mode

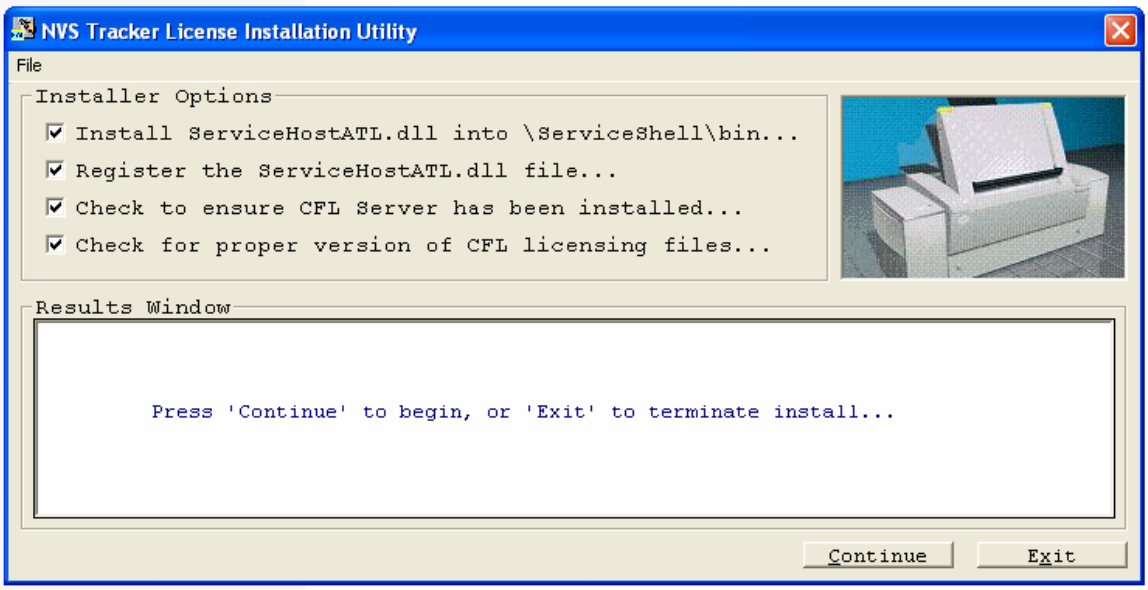


When using Service Host Mode, select **Always use same IP address** to automatically attempt a connection to the IP address when NVS Tracker starts. This function is useful on workstations where NVS Tracker is always communicating with the same platesetter system. It is solely for supporting customers that use NVS Tracker on the local host. This feature is disabled each time you switch IP connections, or change mode of operation.

APPENDIX B – NVS TRACKER LICENSE INSTALLATION UTILITY

NVS Tracker Toolbox requires that certain support files be pre-installed on your system before you install and use NVS Tracker Toolbox. A separate utility called NVS Tracker License Installation Utility was written to perform a quick check of your computer's environment to ensure all the needed software and support files are correctly installed and registered. Note that this utility only needs to be ran once prior to installing NVS Tracker Toolbox. You do not need to run it if you are upgrading NVS Tracker Toolbox.

Start the installer by double-clicking on *NVSTrackerInstaller.exe* and follow the installation instructions.



NVS Tracker Installer checks for:

- required version of ServiceHostATL.dll in the **\ServiceShell\bin** directory
  If the file is missing, or if the current file on your computer is older than the one being copied by the installer, NVS Tracker Installer installs the required version.
- registered ServiceHostATL.dll
  NVS Tracker Toolbox requires this file to communicate with the Service Host. Note that when you select this, **Install ServiceHostATL.dll** is also selected.
- CFL Server
  Do not confuse this with the Service Dongle Manager. The CFL Server software can be found on any of the newer Controlled Release CDs for Kodak platesetters. Ensure that Microsoft .Net Framework is installed before installing the CFL Server software.
- proper versions of CFL Licenses
  A reboot is necessary if the installer has to copy these to the CFL database directory.

APPENDIX C - TROUBLESHOOTING WITH NVS TRACKER TOOLBOX

You can use NVS Tracker to capture and diagnose intermittent problems because it monitors a system using large logs over a long period of time. The utilities are integrated with each other to provide a robust troubleshooting tool. The keyboard has the highest priority, and all other utilities are paused for an additional seven seconds after you execute a command. This provides time to receive a response before returning control to the internal utilities.

The first step in troubleshooting with NVS Tracker is to synchronize with the currently connected system. During synchronization, NVS Tracker performs a NVS/PRM Dump and evaluates it, along with executing additional information-gathering commands. It then enables applicable tools that relate to the current system. When NVS Tracker has finished synchronizing, it creates a Status Report that includes all changes within the system since the last synchronization, a parameter evaluation, and any masks, warnings, or sensors that are disabled. You can also program NVS Tracker to execute additional custom commands during synchronization. These are handy for doing Stroke Cals, Stroke Profiles, checking Scorr settings, and so on.

Examples of Using Tools:

- **DataLink Parser Utility monitoring for warnings and errors**: You can run any of the utilities and have the DataLink Parser Utility monitor for general warnings and errors (or phrases) while the utilities are in use. Any warnings or errors found are copied to the Diag Log. All entries to the Diag Log are time/date stamped for referencing to the workstation logs. The DataLink Parser Utility can also execute commands when search criteria have been matched.
- **System Monitor - Edge Detect**: This utility runs in the background, and passively waits for a plate image to begin. It then records the most recent edge, and assigns the result to a table. The table is a breakdown of all the plates run while the monitor was running—each plate has its own record of edge accuracy, false edges, failed edges, min/max error for loading, and so on. The table results are copied to the Diag Log upon exiting the utility. Current NVS Parameters are evaluated to ensure they are correctly set (esearch, wsearch, epos), and bay alignments on autoloader systems are verified. The results of this utility can show whether a problem is related to media size, or to plate loading / edge detection. If the system is MCE/GMCE based, then additional custom search choices are available for capturing user-defined data (ie: slip sheet issues, picking issues, additional laser focusing & tracking issues, etc).
- **System Monitor - Environmental**: This utility provides a dynamic picture of what is occurring in the system with head/system temperatures, humidity, and air pressure. You can set a separate threshold to monitor each of the values, and a Diag Log entry is made for any threshold that is exceeded. The results are copied to the Diag Log upon exiting. If the system supports it, it also monitors drum vacuum and debris vacuum. Additional voltages, currents and head temps are monitored for Thermal 2 and Thermal 3 heads.
- **Drum Media Status**: An MPE utility that gives a description of the media on the drum, or the last media that was loaded if the drum is empty. It shows the size of the media in inches or millimeters, and you can change the size/thickness and send the data to the drum to update the **`state plate_loc`** data. It also monitors error conditions with the media on drum (door exposure, plate fly off, and so on), and can autocorrect the system state.

- **NVS Restore Utility**: If NVS Tracker detects parameters that have been changed since the last time synchronization with the platesetter, it lists all of the changed parameters in the NVS Restore Utility. You can select which parameters to restore. The utility automatically restores the selected parameters and removes them from the active list.
- **Default Reference NVS Grid**: NVS Tracker creates a default reference grid that can be used as a reference at any time, and can be used to restore a system to a known good state. The default reference is updated when the system is new but it can be updated at any time. It is updated after a PM with head lens cleaning, a new thermal head install, a firmware upgrade, and so on. As you visit the site between PMs, NVS Tracker keeps track of changes during each visit and monitors the drift of parameters from its CTP Database. NVS Tracker automatically tracks the default reference grid to determine if it needs to be updated (for example, when you swap out a thermal head), and continues to notifying you until it is current.
- **Synchronizing NVS Tracker**: When you synchronize NVS Tracker, it evaluates the current system parameters, checks humidity and laser settings, and reports errors. It also ensures you have a current NVS Dump and FSave, and automatically performs backups if the current ones are outdated (new firmware, new head code, new thermal head serial number, and so on).
- **Referencing the CTP Database**: The CTP Database is a handy reference to all the system parameters. You can use it to troubleshoot out of spec parameters by comparing the parameter in question with the usage in other systems. In the CTP Database, you can display similar system parameters in columns, and see how they differ from each other. For example, by displaying all the carriage settings on all of the trendsetters in your database, you can easily see if the **`psteps`** on one system are out of range with the others (default = 32). You can also run Boolean tests from the CTP Database by clicking **Show Faults**. All equations entered into the Parameter Evaluation Utility are run with whatever systems are currently displayed in the CTP Database window.
- **Staccato Checker**: Staccato Checker evaluates the narrow versus wide parameters and displays a list of any parameters that are not equal. You can then select which parameters to have copied (narrow to wide or wide to narrow).

APPENDIX D – SETTING UP A CENTRALIZED DATABASE SERVER

The default location for NVS Tracker's database is on your local hard drive in the NVS Tracker's home directory **\NVS Tracker Toolbox\Data Files**. You can set up a remote server location and share the database among many users.

To set up a Centralized Database Server, create a data file directory on that server with the name **\Data Files**. You must share this directory so that others can access it with read and write permissions.

The benefits of the centralized database include:

- Central deposit for all NVS Parameters
- All related NVS Tracker terminal logs, Diag logs, status logs, FSaves and NVS/PRM dumps are also stored in the same directory location.
- A wider selection of platesetter data for tracking usage trends, evaluating parameter settings, and so on.
- Allowing a utility like PowerDesk Pro File Synchronizer® to copy local hard drive database folders to the centralized database server with only newer data to be copied. If you prefer to operate the database locally, you can still share the database with the centralized database server.

To connect to a Centralized Database Server:

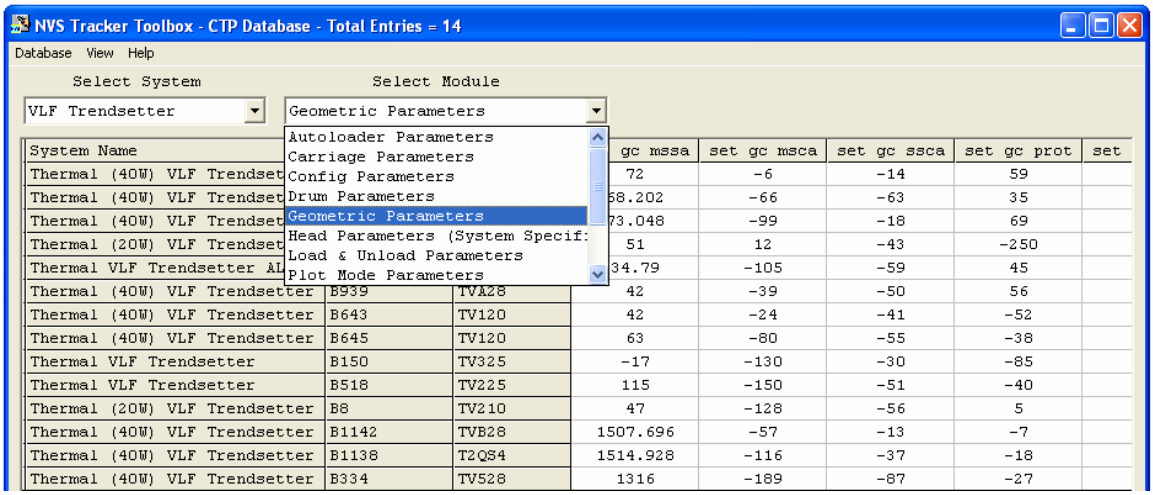
1. Using File Explorer, map the network drive on your computer. You must map network drives before NVS Tracker can attach to them.
2. Select **NVS Tracker User Options > Disk Management**
3. Click **Browse** for the CTP Database Directory location and navigate to the mapped drive that you created in the first step.
4. Save the **User Option** changes. The changes take effect the next time you start NVS Tracker Toolbox.

NVS Tracker loads user options and the CTP Database when the program starts. You can connect to any available CTP Database, whether it is your local database under **\NVS Tracker Toolbox\Data Files**, or if it is a centralized database location on a network server. If NVS Tracker is configured to connect to a centralized database, but the network is not available, NVS Tracker uses the default database location in its home directory.

Note: If you are not using the default database location in NVS Tracker's home directory, two **User Options** are available: **Keep copy of files on local default location** and **Use local/default location when network location is unavailable**. If these options are enabled, you can work offline when not connected to the central/network database.

APPENDIX E – USING THE CTP DATABASE

The CTP database catalogs the data from NVS Dumps and commands that are executed during synchronization. The CTP Database is enabled after you synchronize with your first CTP and the data is displayed. You can list all system data by Thermal Head type, or by System type. A drop down lists system modules for quicker access to parameter groups.



When you synchronize with NVS Tracker, new clients are automatically added to the database. If you delete unwanted database clients, the client directory is also removed from the **\Data Files** directory, along with all client logs and backups.

Click **Show Faults** to perform quick evaluations on systems within the CTP. It will run the Parameter Evaluation Utility against all client systems currently displayed. You can evaluate systems that are similar to each other, which produces a report of faults found. For example, a thermal head expert may want to display all Thermal 1.x heads and verify if any sites have parameters set incorrectly. A systems expert may want to check all drum and carriage modules for VLF Trendsetters in the database.

Select **Show NVS History** to display the NVS History of any system in the database. This history is updated each time you connect to the system and synchronize. It displays all changed parameters, system usage stats, and existing fault conditions. It also displays a history of firmware and head code upgrades done to the system.

If you are searching for a particular parameter in the column header, you can select Find Parameter Name. This will cause all columns to collapse except the columns that meet the search criteria.

If you desire to chart any of your data, you can select to **Export to Excel Spreadsheet**. This feature requires you to have Excel installed on your computer.

Use the Import/Export utility to share database files with other users. You can import data from your region for evaluating systems you are responsible for. You can also share site responsibility to exchange data from site visits to keep other service representatives up to date with system changes. When importing new log files, only information that is more recent is added to the database.

The **Import** menu option is highlighted whenever there is a file present in your **\Import** directory (directory location is specified in **User Options**). Click **Import** and NVS Tracker imports the data from this directory *only* if the customer is not in your database, or if the customer visit is more recent than the current entry in the database. The imported item is highlighted. *Only* the NVS Parameters are imported, and *not* the FSave, NVS Dumps, Terminal Logs, and so on.

The **Export** menu option is highlighted when you select a client in the database. You can export the currently highlighted client, or export the entire listing of clients shown. *Only* the database entries are exported from the database, and *not* the FSaves, NVS Dumps, Terminal Logs, and so on.

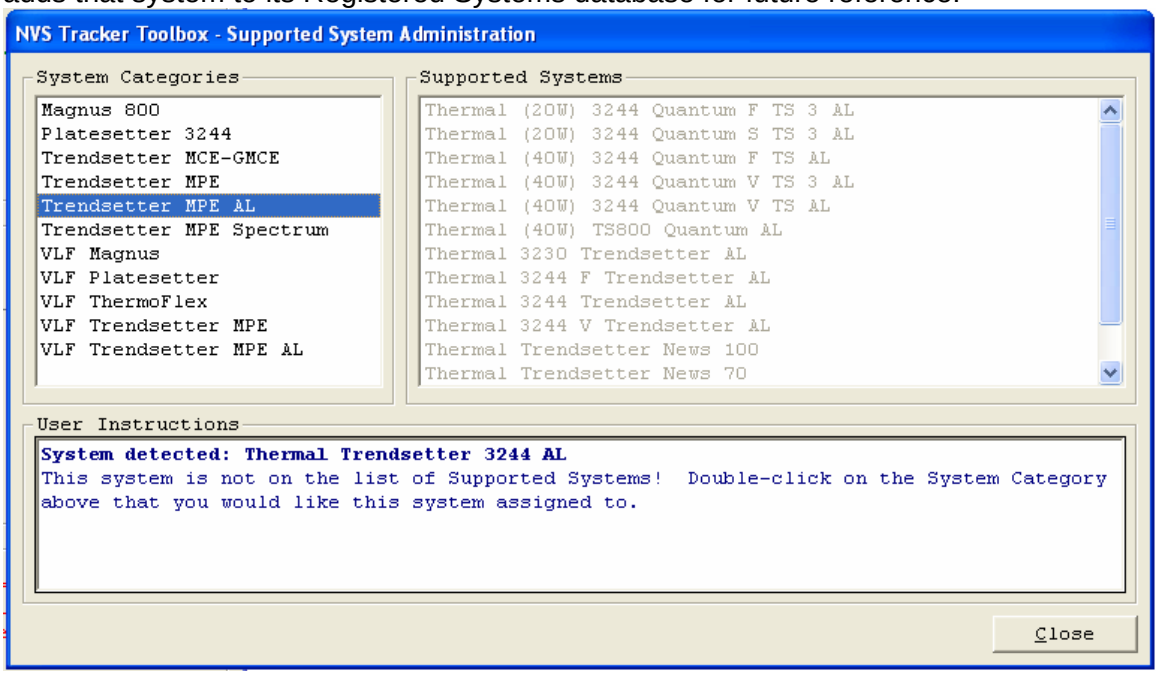
Note: To obtain the site's backups (FSaves, NVS Dumps, PRM Dumps, and so on), just copy the entire customer directory under the **\Data Files** location to the location you want to import the data to. When NVS Tracker starts up, it builds its database by searching the **\Data Files** directory specified under **User Options**, and loads all valid clients into its database.

The CTP Database can also send commands from the database to the platesetter that it is currently connected to (execute the selected parameter). To use this feature, you must be connected to a system and click on any parameter in the database that is a **`set`** command (for example, **`set media 1 name`**, **`set drum epos`**). Click on a qualified parameter and the selected parameter is displayed at the top of the form. Click **Send Command** to execute the command. This feature is useful if you want to copy parameters that are working properly from a secondary platesetter to fix an issue on the currently connected system. It is also useful for populating new media parameters to a platesetter from another platesetter in your database.

APPENDIX F – ASSIGNING CTP CATEGORIES TO SYSTEMS

NVS Tracker comes populated with a few system categories, which are used to group similar type systems that share a common NVS Dump file structure. An example of this is a Trendsetter 3230 AL and a Trendsetter 3244 AL—both have identical NVS Dump files. Both of these platesetter models are associated with the Trendsetter MPE AL parameter database, which stores the framework to access their dump and record their parameters into NVS Tracker. By grouping similar systems into categories, NVS Tracker requires fewer system support database files to interface with the variety of platesetters that we have.

When you attempt to synchronize with a system name that is not populated in NVS Tracker registered systems, the form below is displayed for the user to select the system category that most closely matches the system that you are synchronizing. NVS Tracker adds that system to its Registered Systems database for future reference.



NVS Tracker allows 50 supported systems per category. If you exceed this amount, NVS Tracker prompts you to use the administrator mode to delete some of the older, unused systems from the list. To access this mode, select **Security Menu > Admin Mode**. The password to access the limited Admin Mode is the same password used to access the service mode for Print Console versions 2.x and 3.x.