ActiveEdge   **RIGIBORE**

AE021 ActiveNet Documentation
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Introduction

ActiveNet™ is a PC-based interface which lets you manage ActiveEdge™ Interfaces (AEIs) via an ethernet network to which both are connected. ActiveNet enables the user to update the AEI software, send commands to ActiveEdge tools, and to see a history of past commands and their results.

Network Settings

ActiveNet connects to ActiveEdge Interfaces via an Ethernet network. This must support DHCP, and the target AEI must have been allocated an IP address before an attempt is made to connect to it in ActiveNet.
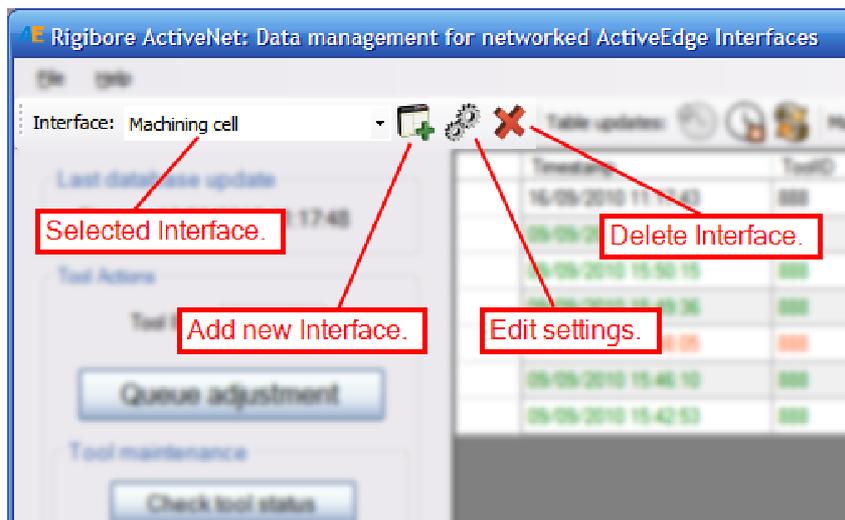
Interface

The initial startup screen is shown below, with annotations showing the functionality of the various areas:
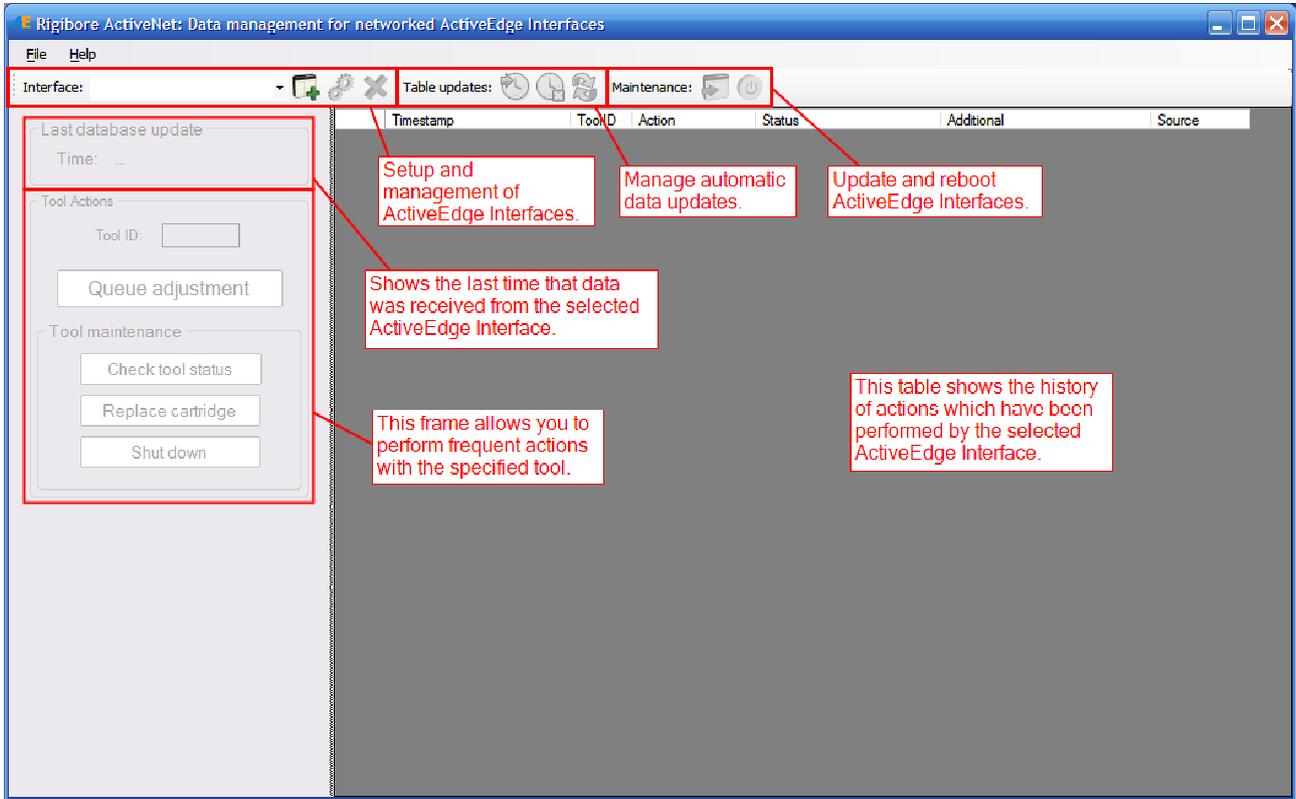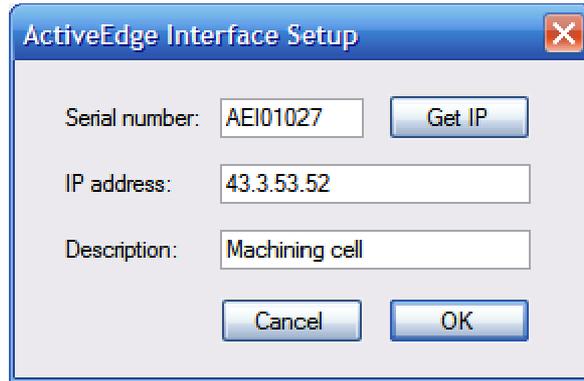

Managing the list of ActiveEdge Interfaces

The first group of toolbar icons manages the list of Interfaces within ActiveNet:

Selecting the **Add New Interface** button opens the AEI Setup window:

ActiveEdge Interface Setup

|	
Serial number:	AEI01027	Get IP
IP address:	43.3.53.52
Description:	Machining cell
	Cancel	OK

Enter the full serial number of the AEI and click to look up the corresponding IP address and enter it automatically in the appropriate box. If the IP address changes at any time this will be detected and updated when the AEI is selected from the drop-down list. A description can also be added, perhaps specifying the location of the AEI or the machine to which it is attached. Click OK to add the AEI to the list of available Interfaces, and it will be selected automatically and link to the AEI.

To change the settings for the selected AEI, click on the **Edit Settings** button. This will open the same dialog box, but only the IP address and Description can be changed.

Finally, to delete an AEI, click on the **Delete Interface** button. This will also delete any data for that AEI within the local database.

Table Updates
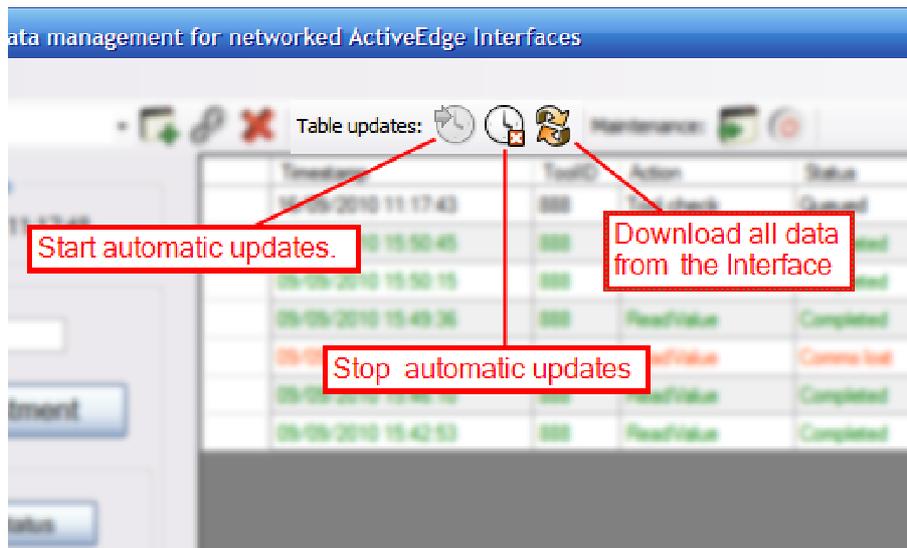
The first button starts automatic updates, under which ActiveNet downloads changes to the selected ActiveEdge Interface's internal database every five seconds. If there is some form of communication error, such as the AEI being turned off, automatic updates are disabled with a message. Automatic updates can be disabled manually with the middle button. The third button forces ActiveNet to download all of the data from the AEI, rather than just the changes. This is sometimes useful if older data that has been pruned from the local database is required again.

Maintenance

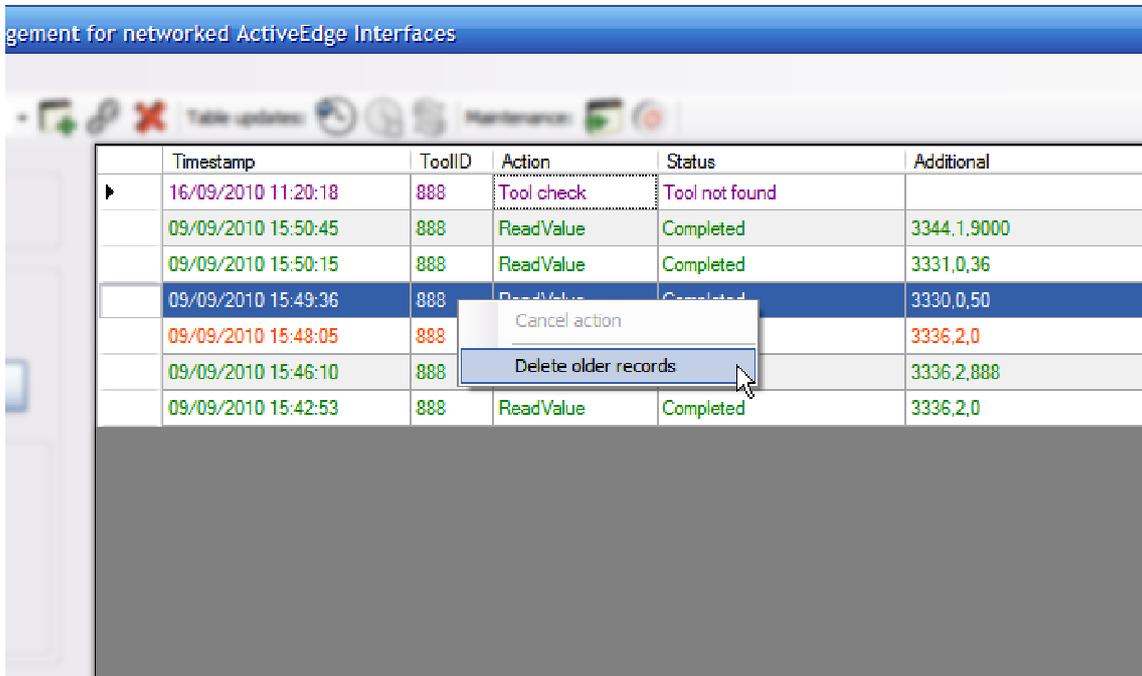Occasionally the AEI will require a software update or to be rebooted:
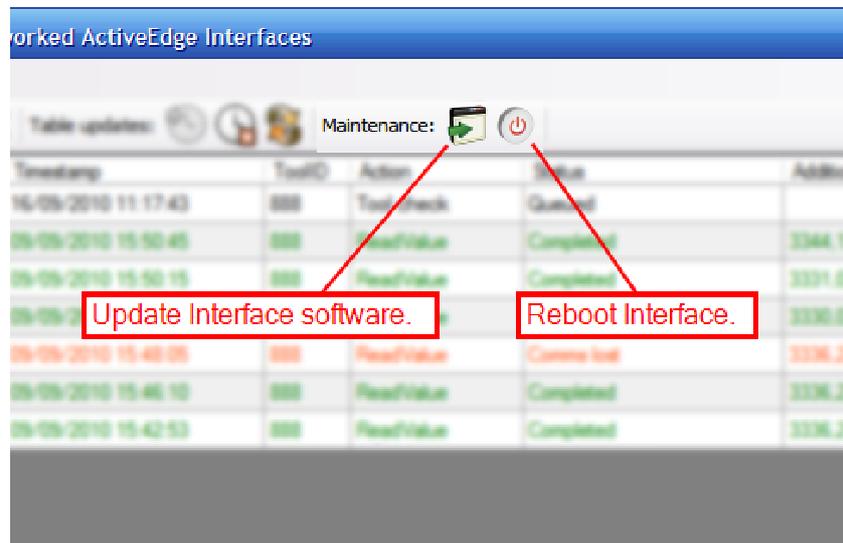
AEI software updates are stored in .UPD files. Before updating an Interface, ensure that there are no pending or active actions. Updating the AEI will cause pending actions to be cancelled, and active actions will be interrupted and data returned from the tool regarding its status, such as the success of an adjustment, will be lost. When the update has been sent successfully, automatic updates will be turned off as the AEI will reboot itself and therefore be unable to communicate.

In the rare event of a problem it may be necessary to manually reboot an Interface, and that can be done with the rightmost button. Automatic updates will also be disabled if this is pressed.

Managing local records

If the list of records in ActiveNet becomes too long, then it can be pruned by deleting old records. Click the right mouse button on the top record you want to delete:

and select **Delete older records**. This will delete all the records for this tool from the selected record down (older).

Tool Actions

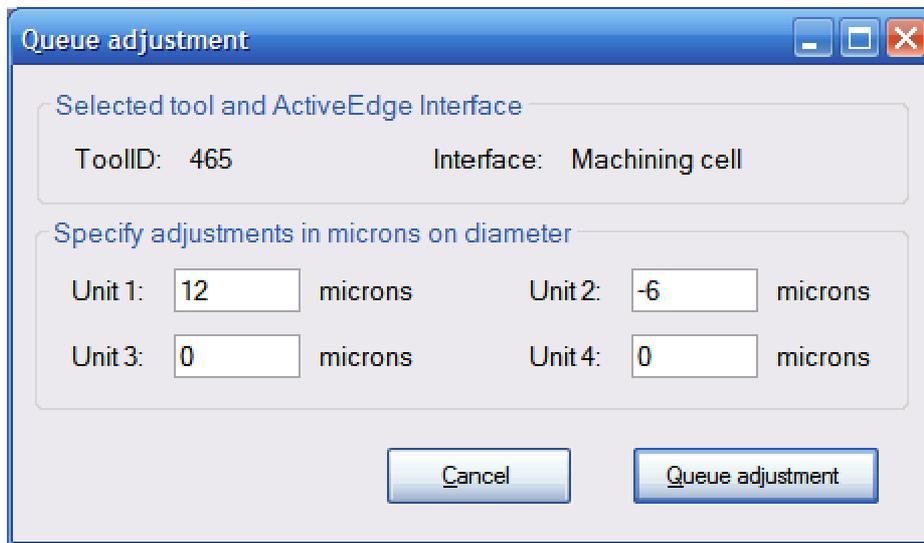The lower left panel allows instructions to be sent to a tool via the selected ActiveEdge Interface:

A Tool ID must be entered before any of these actions can be started. The available operations are: queue an adjustment; check the status of the tool; replace a cartridge; shut down the tool.

Queue Adjustment

This button open the window below:

Up to four units can be adjusted at a time; if the specified tool has less than four units, the remaining units' adjustments should be left at 0.

### The adjustments are to be specified in MICRONS ON DIAMETER.

When the **Queue adjustment** button is pressed a notification box shows whether or not the adjustment queued successfully on the AEI, and if so, it will be added to the table of actions:

The status of the adjustment is shown, together with the requested adjustments for up to four ActiveEdge cartridges. As the AEI tries to connect with the tool, makes a connection, and the tool adjusts (or performs other actions), the status of the action will update accordingly. If the AEI is unable to connect to the tool, if it is out of range or switched off, for example, the status will change to *Tool not found*. Once a connection has been made, the status will change to *Active*. If the action is completed successfully, the status will say *Completed*, or if there was a problem with it, *Error*.

To see a detailed report of the adjustment once it has completed, double-click on the line containing the adjustment. This will open the Adjustment Details box:
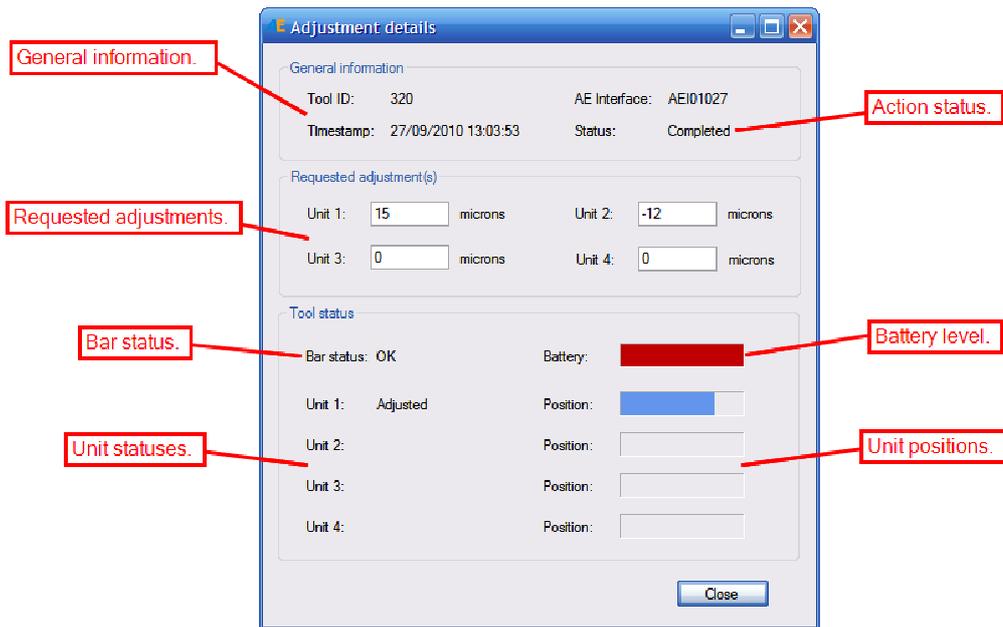

Check Tool Status

To check the status of a tool, enter its Tool ID and click on the Check tool status button. This will queue on the selected AEI a request to get the tool's current status. Once this has completed, double-clicking on the record will open the same window as above, showing the tool's battery status, cartridge statuses, and their positions.

Replace Cartridge

Sometimes it is necessary to replace a cartridge on an ActiveEdge bar. This button allows you to send calibration information to the tool to enable the new cartridge to work correctly. With the new cartridge comes a Cartridge Data file (with a .CDF extension), which must be selected together with the number of the pocket that the cartridge will be seated in:
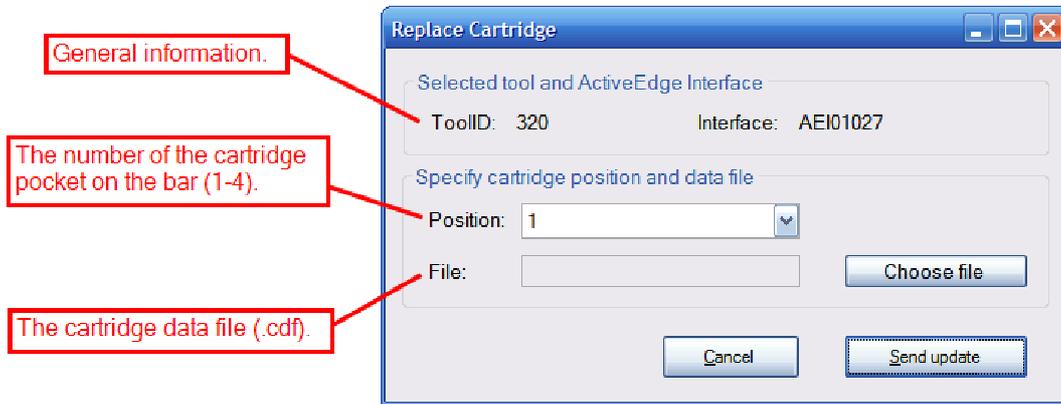
Shut down the Tool

When a tool will not be used for a while, it is a good idea to turn it off completely to save power and extend the battery life. The shut down button sends a request to the Interface to shut down the tool. The tool can be turned on again by pressing the button on the upper face of the yoke.

Error Codes

If the battery on a tool is low, or the requested compensation would take a cartridge outside its adjustment range, or some other fault is detected, the ActiveNet wil display an error code. Possible errors are:

Code	Cartridge Error
e130	Cartridge fault.
e131	Cartridge fault.
e132	Requested compensation would end below cartridge adjustment range.
e133	Requested compensation would end above cartridge adjustment range.
e134	Cartridge missing.
e135	Cartridge fault.
e136	Cartridge fault.
e137	Cartridge stopped while adjusting due to system fault (e.g. low battery).

Code	Tool Error
e200	One or more cartridge faults have been detected.
e201	Cartridge adjustment process interrupted due to low battery.
e202	Low battery detected. Tool switches off automatically.
e205	Error updating cartridge data.
e206	Error writing to tool memory.
e207	Error reading from tool memory.

If the indicated error is one of the low battery warnings e137, e201 or e202, replace the battery and try to adjust the tool again. For all other codes, or if replacing the battery does not fix the error, please contact Rigibore, quoting the Tool ID, Cartridge ID, and error code.