



## What's new in Version 6

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Adroit 6.0 contains new features that provide for VIZNET compatibility and other market driven enhancements.

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### Server features

#### **VIZNET Interface**

Various enhancements to the agent server API to accommodate the new Adroit UI interface built upon the VIZNET platform. VIZNET will only be able to communicate to versions 6.0 of Adroit upwards. See "User Interface features" below.

#### **New SMS driver**

A brand new SMS driver to allow for the sending and receiving of SMS messages via SMS modems. This new driver does away with the need for the "User Defined" driver for sending SMS messages but works only through an SMS modem. Together with the new Command agent (see below), this driver is able to receive SMS commands which are passed on to one or more command agents for processing.

#### **New Command agent**

The Command agent is designed specifically for use with the new SMS driver. It can be used in conjunction with the standard scanning subsystem for the sending of SMS messages OR it can be tightly coupled to the SMS driver, bypassing the scanning subsystem, for the processing of SMS commands.

Outgoing SMS messages support configurable timeouts and retries to one or more specified mobile numbers after which the SMS message can be escalated to another command agent to be sent to a different set of mobile numbers.

The command agent can be configured to send messages on change of state (subscriptions) or at pre-configured intervals (reports) allowing users to remotely monitor the status of important process values.

Finally, the command agent is able to accept commands that will allow the user to acknowledge alarms and to change process values. Other supported commands will include the configuration of subscription and report messages.

#### **New Timer agent**

The new Timer agent is now available to perform some basic timing operations which negates having to use expressions, recipes and scripts to achieve this requirement. Timer agents can be configured to operate in one of four modes:

1. On timer - for the timing of specific events
2. On delay timer - for the filtering out of specific events
3. Pulse shaper - for stretching (shaping) fast events

#### 4. Pulse generator – for generating free running square waves

The agent can be driven manually or automatically by subscribing to another tag in the agent server.

### Versioning

The WGP file structure has been changed to contain versioning information. This information is held in the 2<sup>nd</sup> to 4<sup>th</sup> lines of the WGP file. The 2<sup>nd</sup> line holds the version of Adroit, the 3<sup>rd</sup> line contains a sequential version number and the 4<sup>th</sup> line contains a description (or reason for change) of the WGP file. This description is contained in the new "systeminfo.wgpdescription" tag to allow for automated saves to manipulate this information as required. When the WGP file is saved from the configurator, a popup dialog will allow the user to edit this description.

Furthermore, every time a WGP file is saved, a backup copy is created where the filename of the backup copy contains the date and time of the save operation. Backup copies are stored in the format:

name.yyyymmdd\_hhmmss\_v\_n.wgp

where:

name	is the normal name of the WGP file
yyymmdd	is the date of the save
hhmmss	is the time of the save
v	is an incremental version number
n	is the number of agents stored in the WGP file

Backup files older than 90 days (default value, configurable in Adroit Setup) are automatically checked for and deleted at every save. A value of 0 will disable the feature and remove all backup files on the next save. If users are already in the habit of doing periodical backups, this value should be equal to the backup period to avoid backup duplication.

### Agent picture slot

All agents now have an agent picture associated with them which is saved in the WGP file. Read below to see how the legacy UI supports this new feature. The agent picture slot is editable in the configurator header dialog.

### Enhanced PID agent

The PID agent now supports configurable high and low limits for the SP and CV slots that will prevent these values from being set to potentially harmful values.

### Improved agent server service configuration

More functionality has been provided in the Adroit Setup program to allow easier configuration of the agent server service. These include:

Service dependencies to force important Win32 or other 3<sup>rd</sup> party services to start prior to starting the agent server service. Typically Modbus Plus users would use this make the agent server dependent on the Modbus Plus subsystem device drivers.

Startup delay times to allow for important, but unidentified, Win32 services to complete loading first that would otherwise cause the Adroit subsystems such as scanning to fail on server startup.

Security credentials. The agent server can run in Local System mode most of the time. However if the agent server needs access to resources (typically network resources) that are only available to specific users, the agent server service must be configured to run with a specific user profile. Examples of this are Script agents that access protected resources or DBAccess agents that access protected databases across a network.

### **Improved alarming performance**

The alarm agent performance has been improved to allow for a significantly larger number of agents to be alarmed by a single alarm agent as opposed to the previously suggested count of 500 agents per alarm agent.

### **Long string slots**

More and more users are requiring the server hold strings with lengths greater than 80 characters. The string agent has been given a new slot called "valueex" which, unlike the "value" slot, will hold a string of greater than 80 characters in length. The "value" slot will always contain the first 80 characters of the "valueex" slot, and conversely, the "valueex" slot will always be equal to the "value" slot if the string length is less than 80 characters.

The "valueex" slot is not supported by the scanning subsystem as the scanning subsystem does not deal with strings larger than 80 characters.

### **Live HASP updates**

Customers upgrading their HASP's with extra scan or remote node licences (NOT version upgrades) may now do so without restarting the agent server by simply running the HASPUPDATE utility while the agent server is still running. After a short time the agent server will recognize the new licence details.

## **User Interface features**

### **Brand new User Interface**

Built on the VI ZNET Technology, the new Adroit User Interface has been designed specifically to overcome previous shortcomings of the legacy Adroit UI :

1. Client side scripting - both Server and Graphic Form based C# or VB.NET scripting engine
2. Support for standard Windows controls
3. Hosting of 3<sup>rd</sup> controls (or legacy ActiveX controls)
4. Client connectivity over low bandwidth networks, specifically the Internet
5. Integrated documents - Single Document Interface (SDI) - contain trends and graphics etc in a single form)
6. Internationalization - Dynamic change to all text objects on a graphic form based on language settings of the logged-in Users profile
7. Over and above this, the new UI brings the following new features to market:
8. Server side, data security - secure individual data elements and/or controls on forms
9. Roaming profiles -
10. OEM extensibility
11. Improved, CAD-like drawing tools

On upgrading to the full VI ZNET product, extended, direct connectivity to 3<sup>rd</sup> party data sources, via data connectors such as OLE DB, Web Services and OPC, are also available.

## **Legacy User Interface features**

### **Agent picture slot**

The configurator agent list box now supports a right mouse click pop-up menu that contains all the standard configuration items as well as an "Open document" menu item which will open the document specified by the agent's agentpicture slot.

The functionality of this feature operates as follows:

1. If the agentpicture slot contains a valid document name (and can be found in the Adroit data path, this document will be opened)
2. If the agentpicture slot is empty, the UI will attempt to open a mimic of the same name as the agent
3. If a mimic of the same name as the agent is not found, the UI will attempt to open the document specified in the agentpicture slot of the agent's type.
4. If the agenttype type agent does not have a agentpicture slot defined the UI will attempt to open a mimic of the same name as the agent type. Such a mimic will be considered to be a template mimic. For easy use, such template documents do NOT require the templates for each agent to be configured.

The open document feature is also available:

1. In the configurator agent list box which now supports a right mouse click pop-up menu that contains all the standard configuration items as well as an "Open document" menu item which will open the document specified by the agent's agentpicture slot.
2. In the agent popup menu of the Adroit Project Explorer.

### **Header slots in the Adroit Project Explorer**

Headerslots can be added to the multiple agent grid view using the "Add column.." menu item in the right click popup menu.

### **New scan dialog**

A new, more user friendly scan dialog is now available which allows for:

1. Stopping and starting the currently device without having to open the details dialog
2. Configuring the scan inhibited and output enable for each scan point
3. Easier viewing and sorting of the scanned tag list

### **Improved time format displays on mimics**

Improved time format displays are now possible on mimics instead of the default dd/mm/yyyy hh:mm:ss format. Samples of the new formats include:

- %d/%m/%Y for 01/01/2004 - date only
- %H:%M:%S for 01:01:01 - time only
- %H:%M:%S.n for 01:01:01.123 - millisecond display
- %A, %B %d, %Y for Wednesday, September 01, 2004 - long dates
- %a, %b %d, %Y for Wed, Sep 01, 2004 - "medium" dates

## **Utilities**

### **Tag monitoring**

A new tag monitoring (adrmonitor.exe) utility has been added for easy monitoring of tag values in tabular and trend format.

### **Scan monitoring**

A new scan monitoring (adrcomms.exe) utility has been added for monitoring of the scanning subsystem. The utility provides figures that allow the user to determine whether the state of the scanning subsystem and whether optimal scanning configuration has been achieved.

### **Upgraded browser utility**

The Adroit Browser utility now displays tag values and saves/restores its current view state between sessions.

If the browser is started with the /admin switch, the user is also able to change selected tag values.

## **New Distributables**

- t\_timer.dll
- t\_command.dll
- gsm\_sms.dll
- adrmonitor.exe
- adrcomms.exe

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This document was composed by the Adroit developers in the interest of providing Adroit users insight into the new features of Adroit 6.0.