GE ED&C Home | Search ED&C | GE ED&C Power Management Home | GE ED&C PMCS Home

Technical Note #26

GE Power Management Control System

- Description
  Software
  Hardware
- Operation
- Product Support
- Operator Interfaces
- F A Q's
- App Notes
- Download Area
- Manuals

Useful Information

- Glossary of Terms
- Useful Links
- Search Tech support

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Developing Duplicate PMCS Applications for Host & View Nodes and NetDDE Troubleshooting Tips

Subject: Guidelines for creating duplicate PMCS 5.0/5.1 Applications for use on Host PC & View PC.

Applies To: PMCS 5.0/5.1 Systems

Summary:

This application is recommended for ease of maintenance in topologies that have, as a minimum, a Host PC running the PMCS 5.0 DDE Server and various client applications, and a View Node connected through the network or through modem connection which is running the same PMCS client applications.

If an application is developed carefully, it can be copied from the Host PC directly to the View PC. This saves time during initial development and in the future when new devices are added to the system.

Steps to follow

1. Configure Host Node
   1. Install System Components - NT, Intouch, Excel, PMCS…
   2. Verify NetDDE Installed (Wonderware NetDDE Extensions are NOT qualified with PMCS System and should not be used)
   3. Set Host Node Name and record for later use
   4. Setup GE DDE Server and configure as normal
   5. Setup Intouch Application
      1. Configure Application for NetDDE Data Access. To do this, set the "Application" field in the GE Large Faceplate Wizard and GE Tabular Data Wizard configuration screens to use NetDDE access - \\<computer name>\<server name> (i.e. \\PMCS1\GE16MODB or \\PMCS1\GE32MODB). This is typically done when wizard is "dropped" into the screen and configured, but can be modified in an existing application. This configuration creates Intouch DDEAccessNames for each device configured.
      2. Write a start-up script in Intouch to dynamically change each DDEAccessName from NetDDE Access to DDE Access when running on Host Node. See example below. *WARNING: Running Intouch Application which accesses data through NetDDE on Host Node (PC that Server is running on) will cause serious system problems. To avoid this problem, a*

> *startup script must be included to dynamically change DDEAccessNames from NetDDE to DDE access. Every DDEAccess Name MUST BE included in startup script - including the EventLog.*

6. Waveform Capture will automatically be set-up when GE Tabular Data Wizards are configured.

7. Alarm/Event Logger application requires a little configuration. It is recommended that the Alarm/Event Logger be configured for DDE Access on the Host Node and be configured for NetDDE Access on the View. Therefore, the application cannot be duplicated on View.

Alarm/Event Logger is automatically configured when the GE Tabular Data Wizards are configured. If you recall we configured the Wizards to use NetDDE. Therefore the automatic Alarm/Event Logger configuration uses NetDDE. This must be modified to change the NetDDE access to just DDE. As a time savings step, we can save the existing NetDDE configuration for use on the View Node. Follow the steps below:

- Backup the existing Eventlog Configuration for View Node (i.e. C:\GE_PMCS\EVENTLOG\EVENTLOG.INI -> EVENTLOG.VW)
- Modify Configuration file, EVENTLOG.INI, using Notepad or any Text Editor and remove the Host Node Name from the application name for each device configured (i.e. change \\PMCS1\GE16MODB to \GE16MODB).

2. Copy Application to View Node

1. Install System Components - NT, Intouch, Excel, PMCS …
2. Verify NetDDE is installed(Wonderware NetDDE Extensions are NOT qualified with PMCS System and should not be used)
3. Copy entire Intouch Application directory from Host Node to View Node (located in C:\Intouch32\<application name>)
4. Copy Waveform configuration from Host to View (WFC.INI located in C:\GE_PMCS\WFC - slightly different for 5.1)
5. Copy backup copy of Alarm/Event Logger configuration (using example in Host Configuration section above, copy C:\GE_PMCS\EVENTLOG\EVENTLOG.VW on Host to C:\GE_PMCS\EVENTLOG\EVENTLOG.INI on View)

Example of Intouch Startup Script to Change DDEAccessNames

1. In Intouch, add CurrentNodeName tag defined as type Memory Message with maximum length set large enough for length of Node Name.

The following is the Application Script performed "On Startup" to dynamically change NetDDE access to DDE Access if on Host Node. Note that Host Node name is hardcoded (example uses PMCS1) in this script.

Note: for 5.1 Applications - use GE32MODB or GE32ENET

```
GetNodeName(CurrentNodeName, 20);

IF CurrentNodeName == "PMCS1" THEN

SetDdeAppTopic ("EventLogger","Eventlog","");

SetDdeAppTopic ("EPM01","GE16MODB","");

SetDdeAppTopic ("EPM02","GE16MODB","");

SetDdeAppTopic ("EPM03","GE16MODB","");
```

```
SetDdeAppTopic ("EPM04","GE16MODB","");

.

.

<One for each topic or device configured in Intouch
Application>

.

SetDdeAppTopic ("RMS61","GE16MODB","");

SetDdeAppTopic ("RMS62","GE16MODB","");

SetDdeAppTopic ("RMS63","GE16MODB","");

ENDIF;
```

NetDDE Troubleshooting Tips

See "PMCS Network and Device Configurator - DDE Server User's Guide - GEH 6510" manual section 3-15 for instructions setting DDE Shares. In addition to the manual, the following tips may be helpful in getting NetDDE up and running.

- Verify NetBEUI is installed in Control Panel -> Network. NetBEUI is the protocol used by NetDDE to transfer data over the network. If not installed choose the "Add Software" option. You will need your NT Installation CD. (Wonderware's NetDDE extension may use other protocols such as TCP/IP).
- Verify NetDDE installed in Control Panel -> Services. There should be a Network DDE Service and a Network DDE DSDM Service.
- Verify DDE Shares are set for GE DDE Server (GE16MODB for Modbus Server or GE15ENET for Ethernet Server) on Host Computer. This can be checked by running DDESHARE.EXE in C:\<Windows>\System32 directory. For instructions see GEH-6510.
- For a quick network check, try running Chat (located in Accessories Program Group). Chat uses NetDDE and should prove NetDDE communication is possible.
- If Communication with Server is unsuccessful, follow the instruction below to delete the GE Server's DDE Shares. Then add the GE Server's shares and trust the shares then check communication. If still unsuccessful, delete GE Server's Shares, reboot, add GE Server's DDE Share and trust the shares.
- Note: The NetDDE installed with Microsoft requires NetBEUI protocol. This is a non-routable protocol. If routers must be traversed, its recommended that Wonderware's NetDDE extensions be installed for use with TCP/IP.

To delete a share, run DDESHARE.EXE in C:\<Windows>\System32 directory. From the menu select "Shares"->"DDE Shares". The two GE Server shares are GE16MODB (for Modbus Server) and GE16ENET (for Ethernet Server). Highlight the two shares and select "Delete Share".

To add and trust a share, see GEH-6510 Section 3-15.

- The Event Viewer, located in "Administrative Tools" Program Group, may provide insight into problem. The message "Share 'GE16MODB|* not shareable with remotes nodes" means that the shares have not been accepted properly. Delete, reboot and add manually.
- NT 3.51 may lose DDE Shares on boot-up so be sure to include a command to reset the DDE Shares in the Login Script. See GEH-6510 for details.

Keywords

Intouch, Wizards, NetDDE, Duplicate Applications, NetBEUI

Related Notes

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