NAPOPC

OLE For Process Control & Data Access Server

NAPOPC_ST DA Server

NAPOPC_XPE DA Server

NAPOPC_CE5 DA Server

NAPOPC_CE6 DA Server

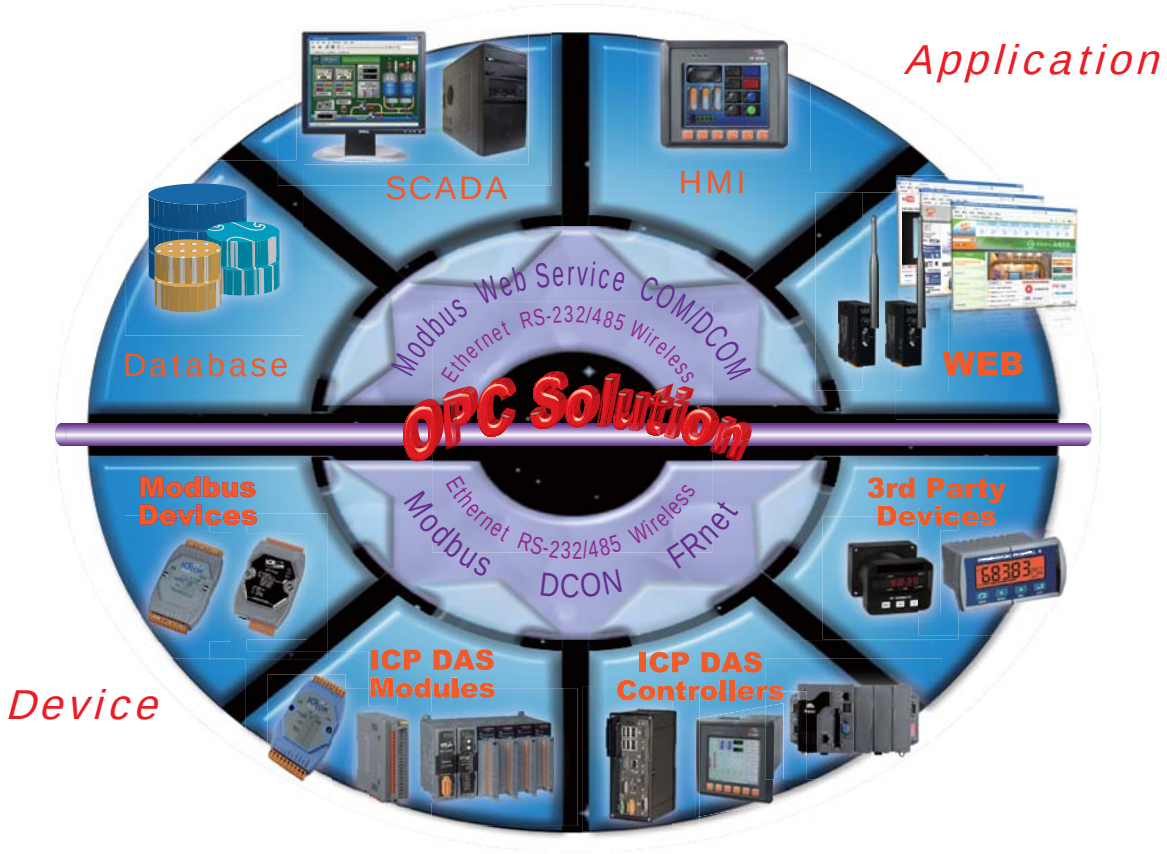
ICP DAS

Vol. DA_1.19.07_EN

NAPOPC Introduction

NAPOPC DA Server is a **free** OPC DA Server application software ("**OPC**" stands for "OLE for Process Control" and "**DA**" stands for "Data Access") for ICP DAS products. Based on Microsoft's OLE COM (component object model) and DCOM (distributed component object model) technologies, NAPOPC DA Server defines a standard set of objects, interfaces and methods for use in process control and manufacturing automation applications to facilitate the interoperability.

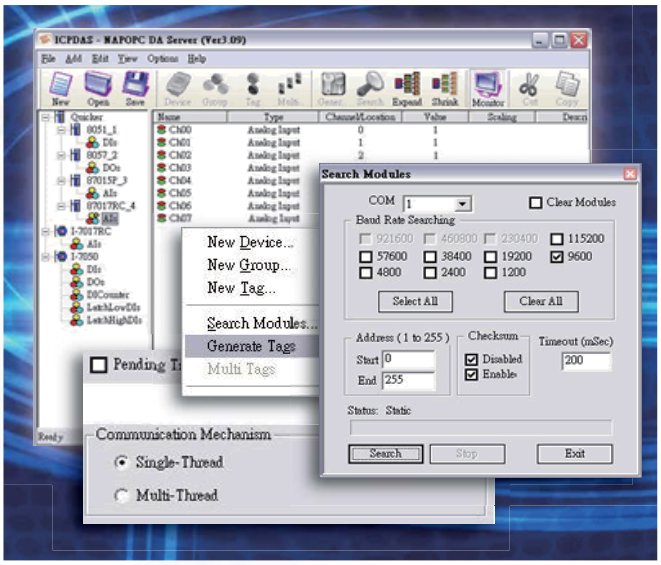
Using NAPOPC DA Server, system integrates data with SCADA/HMI/Database software on the same computer and others. SCADA/HMI/Database sends a request and NAPOPC DA Server fulfills the request by gathering the data of ICP DAS modules (License Free) and third-party devices (License Charge) to SCADA/HMI/Database.



NAPOPC_ST DA Server	NAPOPC_XPE DA Server	NAPOPC_CE5 DA Server	NAPOPC_CE6 DA Server
For Windows XP/7/10 OS	For Windows WES OS	For Windows CE 5.0 OS	For Windows CE 6.0 OS

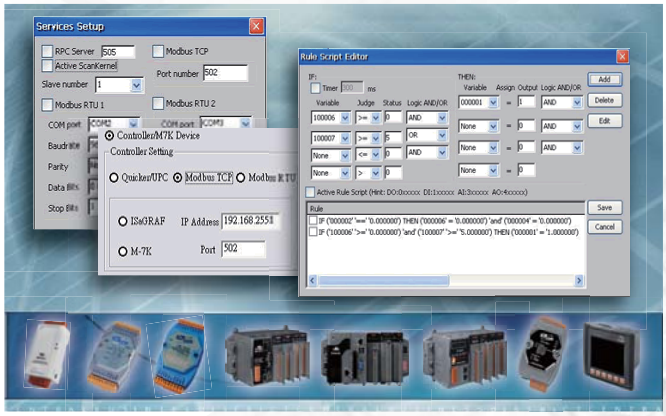
Features

- **Multi-Thread Communication**
  - Increase data integration speed
  - Provide flexible planning
  - Set equipment individual idle time
  - Regulate equipment polling frequency



- **Auto Search**
  - On-line Auto Search modules
  - Support DCON I/O modules
  - Support I-7K, I-8K, I-87K, RU/USB-87Pn

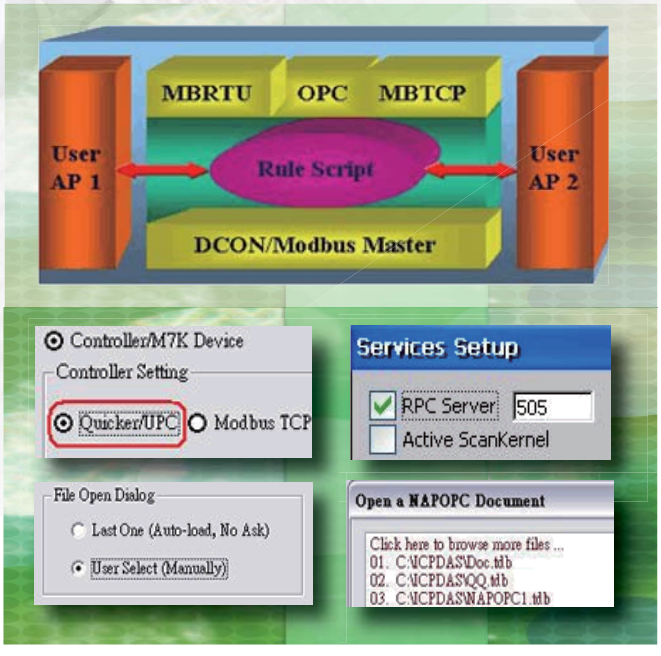
- **Auto Generate**
  - Off-line Auto Generate tags
  - Support DCON I/O modules
  - Generate a whole set configuration
  - Auto structure Device/Group/Tag attributes



- **Support Modbus Device**
  - Modbus I/O modules :
    M-7000,
    ET-6000, ET-7000
  - Modbus PAC Controllers :
    XPAC, XPAC-CE6,
    WinPAC,
    ViewPAC,
    iPAC,
    µPAC

- **Provide Modbus Service**
  - OPC to Modbus TCP Service
  - OPC to Modbus RTU/ASCII Service

- **Support Rule Script**
  - Provide Rule Script Editor
  - Edit simple condition logic equations on PAC
  - Process simple condition logic equations on PAC directly



- **Active data transmission mechanism**

  Server side provides a kind of active transmission mechanism, let data actively transmitted from equipments to SCADA in a superior transmission rate. If any emergency occurred in the equipments, the data will be delivered to the SCADA rapidly.

- **Open application programming interface**

  Open own internal data structure, through "Share Memory", for outer programs to access the data via the API. Users can put most efforts on designing professional Know-How, not on the I/O and transmission communications.

Product Comparison

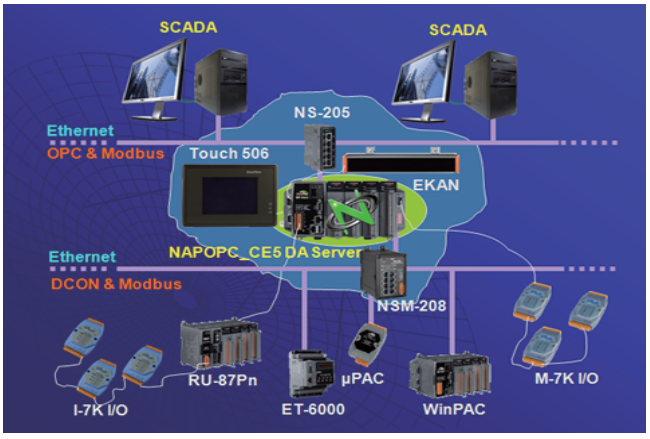
Software Name	NAPOPC_ST	NAPOPC_XPE	NAPOPC_CE5	NAPOPC_CE6
Price & Logo	Free/$	Free	Free	Free
Environment				
Hardware Platform	Enterprese Server (PC)	XPAC-8000	WinPAC-8x4x ViewPAC-2xWx	XPAC-8000-CE6
Operation System	Windows XP Windows 7 Windows 10	Windows WES	Windows CE.NET 5.0	Windows CE.NET 6.0
ICP DAS I/O Modules & PAC Series				
Local I/O Module	-	I-8000, I-87000		
Remote I/O Module	I-7000, M-7000 tM Series I-8000, I-87000 ZB-2000, FR-2000 ET-6000/7000 RU/USB-87Pn I-8KE4/8-MTCP			
	I-8KE4/8		-	
PAC	WinPAC ViewPAC XPAC / XPAC-CE6 µPAC iPAC			
Third Party Modbus I/O & Modbus Device				
Modbus I/O & Device	**License Charge**	**License Free**		
Functionality				
Slave Protocol	OPC	OPC Modbus TCP / Modbus RTU / Modbus ASCII		
Master Protocol	DCON FRnet Modbus TCP Modbus RTU	DCON FRnet Modbus TCP Modbus RTU Modbus ASCII		
Active S2C Communication	Client side		Server side	
Other Functions	Multi-Thread Communication Runtime OPC Document Selection		Multi-Thread Communication Cross-Process I/O Access Conditional Script	

Note : NAPOPC DA Server does not support WinCE7 series PAC.

Applications

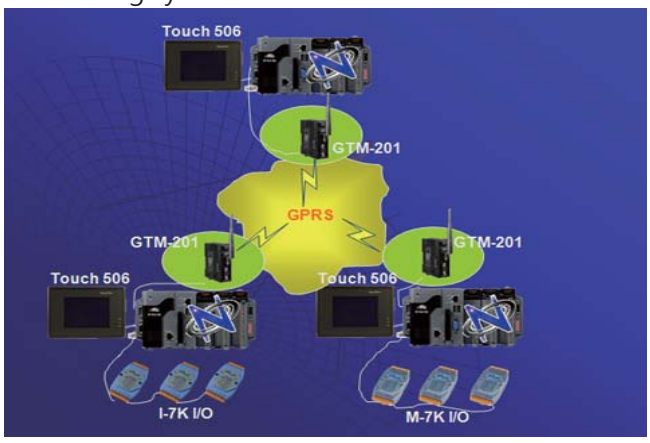
Protocol Conversion Application

NAPOPC DA Server centric Client-Server monitor/control system. By the NAPOPC DA Server, the data of equipments are collected together and provides for use of several clients. It reduces the loading that equipments service for the different clients, and also improves the stability and reliability of the system.



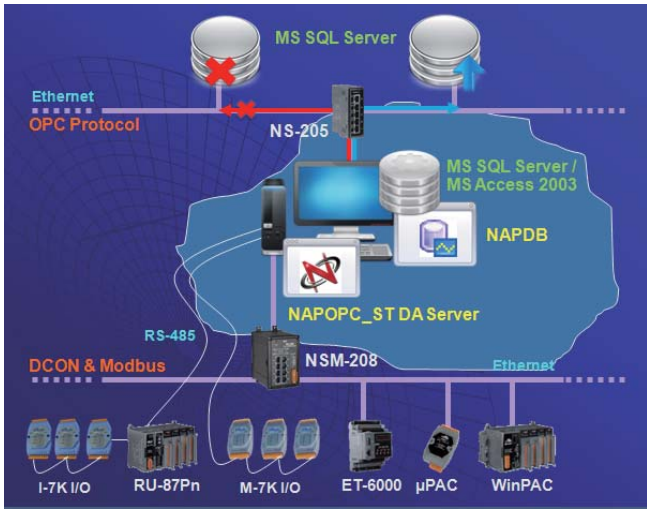
Wireless I/O Application

NAPOPC DA Server collects the equipments data by the way of wireless communication and provides them for use of client end. It is time to apply this application, when I/O equipments are located in an area that no Ethernets connection but still near the ISP stations so that it can communicate through the wireless network, such as the environmental monitoring system in the remote mountain.



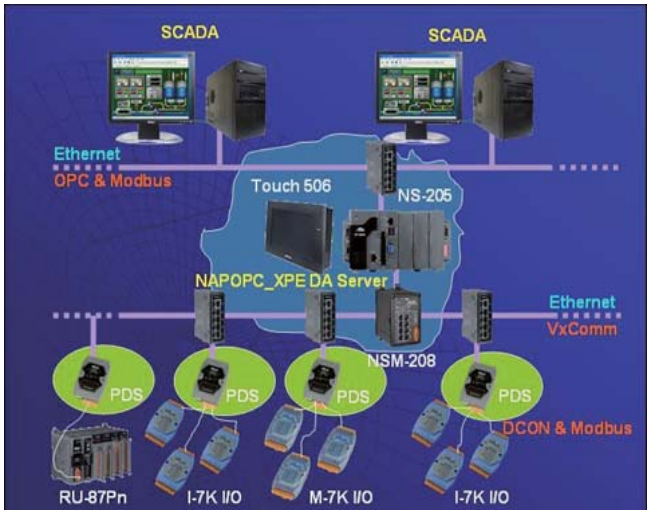
Database Application

NAPOPC_ST/NAPOPC_XPE DA Server can combine with the the database applications. These Server is ideal integrate with the hardware devices based on various transmission formats, like Modbus TCP, Modbus RTU, DCON, etc. The device information will be converted to OPC format and then stored in the database. Without any complex programming, the user can easily access the information in the database.



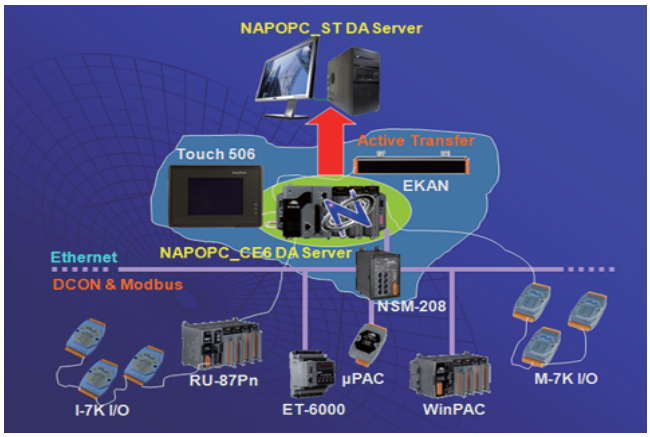
VxComm Application

This application combines the DS/PDS-700 Device Server and the VxComm technology to allow maximum 255 virtual COM ports for the communications when the NAPOPC_ST/NAPOPC_XPE DA Server applies the DCON & Modbus communication. Wherein the communication between the Server and the DS/PDS-700 is through the Ethernet network; the communication within DS/PDS-700, I/O modules and controllers is through the RS-232/RS-485 network.



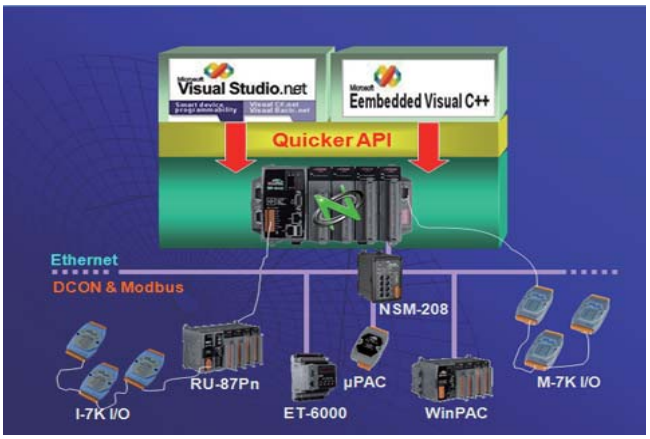
Active Server to Client Communication Application

NAPOPC_CE5/NAPOPC_CE6 DA Server provides one kind of active transmission mechanism. These two Servers, via the NAPOPC DA Server, allow the data actively transmitted from equipments to SCADA with superior transmission rate. If any emergency occurred in the equipments, the data will be delivered to SCADA rapidly.



Direct Cross-Process I/O Access Application

NAPOPC_CE5/NAPOPC_CE6 DA Servers provide a function for advanced system design to integrate user defined algorithms or graphic control interface. The Server opens its internal data structure, through "Share Memory", for outer programs to access data via API. Therefore users can put most efforts on their professional Know-How, not on the I/O and transmission communications.



Ordering Information

RUN-TIME LICENSE (For NAPOPC_ST DA Server)	
NAPOPC-MB-E	Support Third Party Modbus Devices : Modbus TCP Master, one HardKey included.
NAPOPC-MB-S	Support Third Party Modbus Devices : Modbus RTU/ASCII Master, one HardKey included.
NAPOPC-MB-ALL	Support Third Party Modbus Devices : Modbus TCP/RTU/ASCII Master, one HardKey included.

HardKey	
	**NAPOPC HardKey** is an encapsulated chip that must be physically connected to the USB Port of the local computer on which NAPOPC_ST DA Server is installed.

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