Installation and Configuration Manual

OPC Server DSC

Installation and Configuration Manual

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Table of Contents

1.	Glossary	3
2.	Introduction	3
3.	About the OPC DSC	4
4.	System Requirements	5
5.	Installation guide	6
5.1	Registration of the OPC Server	6
5.2	Authentication and Permissions	7
5.3	Licensing	12
5.3.1	How to obtain a license	12
5.3.2	Software license activation	12
6.	System Configuration	13
7.	OPC TAGs	17

1. Glossary

Acronym	Description
OPC	OLE for Process Control
OLE	Object Linking and Embedding
GUI	Graphic User Interface
SCADA	Supervisory Control And Data Acquisition

2. Introduction

This is a User Manual for the OPC DSC. The Server communicates with DSC controllers over Serial communication and supports data exchange with Client's via Microsoft's Object Linking and Embedding (OLE) for Process Control (OPC).

S4S's OPC Server is a software package that operates as an OPC driver of Siemens Management stations as MM8000, Desigo CC[™] and Cerberus[™] DMS. The OPC Server meets the latest standard of OPC DA2.0 that allows connections to various kinds of devices and host OPC machines.

The manual is organized to provide an overview of OPC technology, detailed information on the configuration environment and a complete list of OPC Tag's provided by the OPC Server.

3. About the OPC DSC

The OPC Server DSC is based on OPC Data Access, known as 'DA', which provides real-time data from DSC controllers to management stations with OPC client drivers as MM8000, DesigoCC[™] and Cerberus[™] DM.

The server communicates with the DSC system through IT-100 or PC4020 Data Interface Module.

The OPC Server reads and writes data to and from DSC system via Serial communication.

The Server has a graphical user interface (GUI) configuration environment with an "Explorer" look and feel. The configuration environment allows the Server to be configured with information such as controller Serial Com addresses and available global variables so that the Server can communicate with these systems on behalf of Clients.

Application Name	: OPC- DSC.exe	
OPC NAME	: "S4S.OPC- DSC "	(Can be configured in xml file)
OPC DESCRIPTION	: "OPC Server – DSC "	(Can be configured in xml file)
OPC GUID	:{476A8926-B837-4D3E-96C6-3	3238FA0B7BC1 }

4. System Requirements

The OPC Server DSC application runs on any hardware which supports Windows Server 2003/2008/2012, Windows XP, Windows 7 or Windows 8 with DCOM, Visual C++ 2010 Redistributable Packages and .NET Framework 4 Installed.

The system must have 10 Mb of free disk space to install the program and 1 Gb of free memory is required to load and run the application. All systems information is stored in the server's disk. For configuration purpose a monitor connected to the computer is required. The OPC server is a 32 bit application which runs on both 32/64 bit operating systems.

Hardware characteristics recommended

- CPU i5 high-end (for example INTEL Core i5 4690K) or i7 mid-range (for example Intel Core i7-4770K)
- RAM : 4GB

Checks on the network

Since the Server communicates with the DSC system over Serial communication, a Serial Port must be in place. The network itself should be fully tested and be known to operate before attaching the controllers and the Server computers. Contact your system administrator for assistance or consult instructional documentation and manuals to setting up the network. It is beyond the scope of this Users Manual to discuss networking topics in any detail.

Once the network is in place and the Server computers and controllers are attached, check connectivity using available network testing tools and programs such as ping command.

5. Installation guide

Before installation of the OPC server, make sure it is installed the Visual C++ 2010 Redistributable Packages, if not please let install it on your computer.

The OPC Server DSC is provided with own specific setup. The setup includes all the dependencies (ex. *WtOPCSvr.DLL* - OPC server library) in order to ensure the proper functioning of the application.

- S4S_OPC_Library.dll
- S4SGenCodeInfo.dll
- S4SGenCodeInfoLibrary.dll
- WtOPCSvr.dll
- SysInfo.dll

Two security issues require attention:

- Installation needs Administrator rights;
- Windows Firewall must be configured;
- DCOM security settings must be configured. This guide describes how to make the necessary settings.

5.1 Registration of the OPC Server



- To register the Server, you must click 'Register' in the menu 'Server'.
- To unregister the OPC Server, you must click 'UnRegister' in the menu 'Server'.

5.2 Authentication and Permissions

After OPC Server registration the COM security has to be enabled, so OPC Client can automatically call the OPC Server.

Below are showed all steps needed to enable the security COM, using 'DCOMCNFG1':

- 1. Verify that the DCOM security registration was executed successfully;
- 2. Run DCOMCNFG (Only the administrator can run *'Dcomcnfg.exe'*). To use *'RUN Command Windows*' or *'Command Prompt'*, to open DCOMCNFG program;

Run	? ×
	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
Open:	dcomcnfg
	OK Cancel <u>B</u> rowse

Image 2 DCOMCNFG - Run

- 3. Locate the My Computer item by expanding the following nodes: Component Services > Computers;
- 4. Right-click My Computer and select Properties.



Image 3 Component Services Property

¹ **Dcomcnfg.exe** provides a user interface for modifying certain settings in the registry. By using Dcomcnfg.exe, you can enable security either on a computer-wide or a process-wide basis. You can enable security for a particular computer so that when a process does not provide its own security settings, either programmatically or through registry values, the values set by Dcomcnfg.exe will be used. Or you can use Dcomcnfg.exe to enable security for a particular application only. *Note*:You must be an administrator to run Dcomcnfg.exe.

5. Go to the COM Security tab. Edit the default settings to Access Permission, hereby adding 'ANONYMOUS LOGON' and 'Everyone' and giving all access permissions to that group of users. Repeat the setup for the limit settings.

Default Protocols MSDTC CDM Security Access Permissions You may edit who is allowed default access to applications. You may also set limits on applications that determine their own permissions. Group of the termine their own permissions. Edit Limits Edit Default Edit Default Launch and Activation Permissions St St You may edit who is allowed by default to launch applications or activate objects. You may also set limits on applications that determine their own permissions. Permissions	ecurity r user names: ONYMOUS LOGON eryone LF STEM Add Remove
Access Permissions You may edit who is allowed default access to applications. You may also set limits on applications that determine their own permissions. Edit Limits Edit Default Launch and Activation Permissions You may edit who is allowed by default to launch applications or activate objects. You may also set limits on applications that determine their own permissions. Permissions Permissions	r user names: ONYMOUS LOGON eryone LF STEM Add Remove
Edit Limits Edit Default	Allow Deny Access Allow Deny Access

Image 4 COM Security Access Permissions

6. Now edit the default settings for Launch and Activation Permissions, hereby adding 'ANONYMOUS LOGON' and 'Everyone' and giving all access permissions to that group of users. Repeat the setup for the limit settings.

	Options	Default Properties	Launch Permission		
Default Protocols	MSDTC	COM Security	Default Security		
Access Permissions You may edit who i also set limits on ap	s allowed default access plications that determine Edit Limits	to applications. You may their own permissions.	Group or user names: ANONYMOUS LOGON Everyone MINTERACTIVE SYSTEM		
You may edit who i activate objects. Y determine their own	s allowed by default to la ou may also set limits on 1 permissions.	unch applications or applications that	Permissions for ANDNYMOUS	Add	Remove Deny
	Edit Limits	Edit Default	Local Launch Remote Launch	333	
			Remote Activation		

Image 5 COM Security Launch and Activation Permissions

The new settings will take effect when the OPC Client has been restarted. Therefore, close the Component Services (dcomcnfg program) and restart the OPC Client application.

7. Using tree view DCOMCMFG to check the all DCOM registered.



Image 6 DCOMCMFG

Select the 'Component Services' item, than 'Computers', than 'My Computer' and 'DCOM Config' item;

Find the OPC Server name registered in the DCOM list, it must be the same as configured in the xml file.

Xml file example:

<OPC_PROTOCOL Delimiter="." **OPC_name=**"<u>OPC-SERVER</u>" OPC_description="OPC Server - DSC" ···>

OPC Server name is registered: "OPC-DSC", for this example the name is "OPC-SERVER".



- 8. OPC Server Configuration Permissions. Select the 'OPC-SERVER' registration then the properties (pushing the right button) and then select the 'security' tab:
 - a. Select '*Customize*' in the '*Configuration Permissions*' and then click the '*Edit*' button.

General Location Security Endpoints Identity	
Launch and Activation Permissions	
 Use De<u>f</u>ault 	
C Custo <u>m</u> ize	E <u>d</u> it
L	
Access Permissions	
Use Default	
C Custo <u>m</u> ize	E <u>d</u> it
Configuration Permissions	
◯ Use Defa <u>u</u> lt	
Customize	Edit
OK Can	cel <u>Apply</u>
Image 8 DCOMCNFG – Configuration Perm	nissions

- b. Select 'Add' button to add a new user and then, in the new form, select the 'Advanced' button.
- c. Click the 'Find' button to search the 'everyone' and then 'ANONYMOUS LOGON ' users.

Folost Usors or Croups			2 1
select Osers of Groups			
Select this object type:			
Users, Groups, or Built-in security principals			Object Types
From this location:			
FT_SRV_1			Locations
Common Queries			
Name: Starts with			<u>C</u> olumns
Description: Starts with 💌			Find Now
Disabled accounts			Stop
Non expiring password			
Days since last logon:			S
Search res <u>u</u> lts:		Ok	Cancel
Name (RDN)	In Folder		
Administrators	FT_SRV_1		
MANONYMOUS LOGON			
232 Authenticated Users	ET CDV/ 1		-
	11.017.1		

Image 9 DCOMCNFG - Find User

d. Add 'everyone' and 'ANONYMOUS LOGON ' user;

Select Users or Groups		<u>? ×</u>
Select this object type:		
Users, Groups, or Built-in security principals		Object Types
Erom this location:		
FT_SRV_1		Locations
Enter the object names to select (<u>examples)</u> :		
ANONYMOUS LOGON; Everyone		<u>C</u> heck Names
Advanced	OK	Cancel
		111

Image 10 DCOMCNFG - Add users

- e. Provide all permission to added users.
- 9. Set OPC Server identity. Select the 'identity' tab:

Set 'This user' and insert User and Password used to access MM8000.

General Location Securi	ty Endpoints Identity					
Which user account do you want to use to run this application?						
C The interactive user.						
C The launching user.						
 This <u>u</u>ser. 	DMC0000	1				
Us <u>e</u> r:		Browse				
<u>P</u> assword:	•••••					
Confirm password:	•••••					
C The system account (s	ervices only).					
	OK Cancel	Apply				

Image 11 DCOMCNFG – Identity

Note: The demo version runs only with Launching or Interactive User. A different user from Launching or Interactive can be used ONLY if the OPC-Server runs with a registered PAK.

5.3 Licensing

To run the OPC Server without any time restriction a regularly software license has to be purchased from S4S.

A software license defines the maximum configuration managed by the OPC Server in terms of:

- Maximum number of TAGs:
 - You can find this value on the main page in the OPC statistics (Number of Tags);
- Number Control Unit defined:

Identifies the number of configured subsystems that you want to license.

Without the software license the OPC Server DSC runs in demo mode with full functionality for two hours. The demo mode runs only with Launching or Interactive User (see OPC Server identity 9).

5.3.1 How to obtain a license

A software license must be obtained from S4S and the request has to be done from the computer where is installed the OPC Server. From the its User Interface selecting "?" then "Information about OPC Server DSC" then "View license" then "Product activation".

In the 'Product Activation' the following fields have to be filled :

- Customer installation data
 - o User name,
 - o Organization,
 - o Email,
- DSC configuration in terms of: Maximum number of TAGs and Number Control Unit defined;
- Code generation (via the 'Generate new user code' button);
- Save the code and directly send it to 'orders@s4s.it ' or send it via 'Send' button if it is configured a mail box on the computer.

A PAK (Program Authorization Key) code will be generated for that specific configuration and for the PC from which has been requested the software license.

5.3.2 Software license activation

To activate your license you must access to the 'Product Activation' dialog and through the 'Load New License' button you load the license file released by S4S.

A dialog will appear for feedback at the end of loading to indicate the outcome of activation.

6. System Configuration

The purpose of this section is to provide the necessary information for configuring the DSC.

The OPC Server has to be configured in order to communicate with the DSC and acquire data from it.

The Server must be configured to know about DSC system(s) with which it will communicate. In the Server configuration environment, each SUBSYSTEM is referred to as a control panel DSC.

Configuration of System includes defining Communication Paths to access SUBSYSTEM(s), SUBSYSTEM address information and the Global Variables available in the SUBSYSTEM(s) to be accessed.

The configuration of the communication parameters and of the SUBSYSTEMs connected to the OPC Server is done using an XML page.

The configuration page should be placed in the OPC-DSC application folder. If the configuration page is not present in the OPC Server application folder, the program automatically creates a template configuration page.

<?xml version="1.0" encoding="utf-16"?>

<!--OPC Server Configurator. Version 1.0.0.1, DateTime 14/06/2013 15:12:15-->

<!--Configurator Settings. IMPORTANT: This is an internal file that has been generated by OPC-DSC program. Any direct editing or changes made to this file may result in unpredictable behavior or data corruption. It is strongly advised that users do not edit the contents of this file.-->

<Configurator>

<!--System Configuration.-->

<!--RECONNECTION_FREQUENCY: Check interval of the serial communication and connection to the Control Unit DSC. If the serial port is open the application sends a poll to check the connection status of the Control Unit DSC. Default value: 5 [s]. Range Value 1-36000 [s].-->

<!--SYSTEM_STATUS_UPDATE: Request interval for updating the state of the Control Unit DSC. The application updates the status of the partitions (ready, alar, arm, trouble) and zone (Open). The remaning status are updated when a change-of-state is encountered, for example: SUBSYSTEM PannelBatteryState/PanelACState etc.. , Zone Alarm / Tamper / Fault , etc.. . Default value: 60 [s]. Range Value 5-36000 [s].-->

<!-- NUM_RETRY_POLLING: Number of polling messages sent to the control panel DSC, without any response, before changing the connection state to disconnected. Default value: 5. Range Value 1-50.-->

<!--DETAIL_LOG: Defines the level of detail of the log, (1) LOW, (2) MEDIUM, (3) HIGH-->

<!--(1) LOW - [Default value] - Log write only on OPC GUI.-->

<!--(2) MEDIUM - Log write on OPC GUI and on File.txt (C:\OPC-DSC\LOG\).-->

<!--(3) HIGH - Log write on OPC GUI and on File.txt (C:\OPC-DSC\LOG\). The detail level is verbose and can slow down the program. Used only for Debug.-->

<SETTINGS RECONNECTION_FREQUENCY="5" SYSTEM_STATUS_UPDATE="60" NUM_RETRY_POLLING ="5" DETAIL_LOG="1" />

<!--OPC Property Configuration.-->

<!--Delimiter: TAGs delimitator for OPC Protocol. Default value: '.'-->

<!--OPC_name: OPC name registered in the system. Default value: S4S.OPC-DSC-->

<!--OPC_description: OPC description registered in the system. Default value: S4S OPC Server - DSC-->

<!--Defines the maximum number of SUBSYSTEM that can be configured. If I define more than the SUBSYSTEM threshold, the program recognizes only the first falling within the configured threshold value. Default Value: 1. Range Value 1-10.-->

<OPC_PROTOCOL Delimiter="." OPC_name="S4S.OPC-DSC" OPC_description="S4S OPC Server - DSC" Maximum_number_SUBSYSTEM="1" />

<!--DSC System(s) Configuration. Serial Port Configuration:-->

<!-- ID: Identifier of the Control Unit DSC-->

<!-- Description: Description SUBSYSTEM configured. The first OPC activation, OPC creates a example configuration with only one SUBSYSTEM. The SUBSYSTEM description is setted with -EXAMPLE-, OPC doesn't consider the SUBSYSTEM, with description - EXAMPLE-, as configured, you must rename the SUBSYSTEM if you want configure it. The default value is EXAMPLE-.->

<!-- DataInterfaceModule: Defines the interface module to the Control Panel [(0):PC4001, (1):IT-100]. The default value is 0 (PC4401).-->

<!-- UserCode: Required only for IT-100 Data Interface Module, used to confirm some commands (Partition Arm Control with Code or Partition Disarm Control - with Code). The default value is '1234'.-->

<!-- BaudRate: The baud rate must be supported by the user's serial driver. The default value is 9600 bits per second (bps).-->

<!-- Parity: The values for this property can be: None, Event, Mark, Odd, Space. The default value is None.-->

<!-- StopBits: The values for this property can be: None, One, OnePointFive, Two. The default value is One.-->

<!-- DataBits: The range of values for this property is from 5 through 8. The default value is 8.-->

<!-- PortName: The communications port. The default is COM1.-->

<SUBSYSTEM ID="1" Description="EXAMPLE" DataInterfaceModule="0" UserCode="1234" BaudRate="9600" Parity="None" StopBits="0ne" DataBits="8" PortName="COM1" />

</Configurator>

XML template page

SETTINGS TAGs

The TAG *SETTINGS* configure the global settings of the server:

• *RECONNECTION_FREQUENCT:MILLISECOND:*

Check interval of the serial communication and connection to the Control Unit DSC. If the serial port is open the application sends a poll to check the connection status of the Control Unit DSC. Default value: 3 [s]. Range Value 1-36000 [s].

• SYSTEM_STATUS_UPDATE_MILLISECOND:

Request interval for updating the state of the Control Unit DSC. The application updates the status of the partitions (ready, alar, arm, trouble) and zone (Open). The remaning status are updated when a change-of-state is encountered, for example: SUBSYSTEM PannelBatteryState/PanelACState etc.. , Zone Alarm / Tamper / Fault , etc.. . -1 value indicates that the request is not cyclic, the state is required only after the first connection to the panel. Default value: 60 [s]. Range Value -1 or 5-36000 [s].

• NUM_RETRY_POLLING

Number of polling messages sent to the control panel DSC, without any response, before changing the connection state to disconnected. Default value: 3. Range Value 1-50.

• DETAIL_LOG

Defines the level of detail of the log, (1) LOW, (2) MEDIUM, (3) HIGH. Default value: 1. Range Value 1-3.

(1) LOW - [Default value] - Log write only on OPC GUI.

(2) MEDIUM - Log write on OPC GUI and on File.txt (C:\\OPC-DSC\\LOG\\).

(3) HIGH - Log write on OPC GUI and on File.txt (C:\\OPC-DSC\\LOG\\). The detail level is verbose and can slow down the program. Used only for Debug.

The **OPC_PROTOCOL** tag defines the features of the OPC Server. The OPC_PROTOCOL tag is defined by:

• Delimitator

TAGs delimitator for OPC Protocol. Default value: '.';

• OPC_name

OPC name registered in the system. Default value: S4S.OPC-DSC;

• OPC_description

OPC description registered in the system. Default value: S4S OPC Server – DSC;

• MaxNumberSUBSYSTEM

Defines the maximum number of SUBSYSTEM that can be configured. If I define more than the SUBSYSTEM threshold, the program recognizes only the first falling within the configured threshold value. Default Value: 1. Range Value 1-10.

SUBSYSTEM TAGs

The **SUBSYSTEM** tag defines a Control Unit DSC to be connected to the OPC Server. To connect #N SUBSYSTEM system , you must insert into XML page #N SUBSYSTEM tags.

The *SUBSYSTEM* tag is defined by:

• ID

Identifier of the Control Unit DSC

• Description

Server description. The first OPC activation, OPC creates an example configuration with only one SUBSYSTEM. The SUBSYSTEM description is setted to -EXAMPLE-, OPC doesn't consider the SUBSYSTEM, with description -EXAMPLE-, as configured, you must rename the SUBSYSTEM if you want configure it. The default value is EXAMPLE

• DataInterfaceModule

Defines the interface module to the Control Panel [(0):PC4001, (1):IT-100]. The default value is 0 (PC4401).

• UserCode

Required only for IT-100 Data Interface Module, used to confirm some commands (Partition Arm Control with Code or Partition Disarm Control - with Code). The default value is '1234'.

BaudRate

The baud rate must be supported by the user's serial driver. The default value is 9600 bits per second (bps).

• Parity

The values for this property can be: None, Event, Mark, Odd, Space. The default value is None.

• StopBits

The values for this property can be: None, One, OnePointFive, Two. The default value is One.

• DataBits

The range of values for this property is from 5 through 8. The default value is 8.

PortName

The communications port. The default is COM1.

7. OPC TAGs

The following list introduces each tags in the OPC structure with a brief description.

TAG	DESCRIPTION	TYPE	PROPERTY	DATA INTERFACE	VALUE	VALUE DESCRIPTION
	S4S.(OPC-DSC				
SETTINGS					I	
.ReconnectionFrequency[s]	Reconnection Frequency in seconds	Int32	R/W		1-36000	Default value: 3[s]
.SystemStatusUpdat[s]	System status update in seconds	Int32	R/W		5-36000 (-1 No Update)	Default value: 60 [s].
.Maximum_number_SUBSYSTEM	Maximum Number SUBSYSTEM configurable	Int16	R		1-10	Default Value: 1
. Date_XML_Upload	Date last upload configuration data (xml file)	String	R			DD/MM/YYYY hh:mm:ss
	SUB	SYSTEM*		DOLLO		
. Configured	Configured in xml file	Int16	R	PC4401 IT-100	0	Configured
					1	Not Configured
.ID	Control Unit ID	Int16	R	PC4401 IT-100	1-N	
.Description	Control Unit Description	String	R	PC4401 IT-100		
.SerialPortState	Serial Port State	Int16	R	PC4401 IT-100	-1	Unknown
					0	Open
					1	Close
.ConnectionState	Connection State to Contro Unit DSC	Int16	R/W	PC4401 IT-100	-1	Unknown
					0	Connected
					1	Disconnected
						COMMANDS:
				PC4401 IT-100	11	Status Request
				PC4401 IT-100	12	Set Time and Date
.PannelBatteryState	Pannel Battery State	Int16	R	PC4401 IT-100	-1	Unknown

					0	Normal
					1	Trouble
.PannelACState	Pannel AC Power State	Int16	R	PC4401 IT-100	-1	Unknown
					0	Normal
					1	Trouble
.PannelAux	Auxiliary Power State	Int16	R	PC4401	-1	Unknown
					0	Normal
					1	Trouble
.SystemBellState	System Bell State	Int16	R	PC4401 IT-100	-1	Unknown
					0	Normal
					1	Trouble
.TLMLine1State	Telephone Line 1 State	Int16	R	PC4401 IT-100	-1	Unknown
					0	Normal
					1	Trouble
.TLMLine2State	Telephone Line 2 State	Int16	R	PC4401 IT-100	-1	Unknown
					0	Normal
					1	Trouble
.GeneralSystemTamperState	General System Tamper (zone or module) State	Int16	R	PC4401 IT-100	-1	Unknown
					0	Normal
					1	Alarm
.GeneralSystemTrouble	General System Trouble State (One or more of the following has occurred: PC4204/PC4820/PC485 0/PC4702 AC, battery and Aux Supply troubles, Alternate Communicator troubles, PC4400 troubles, automation fault, PC4164 RF jam)	Int16	R	PC4401	-1	Unknown
					0	Normal
					1	Trouble
.GeneralModuleCom	General Module Communication State	Int16	R	PC4401	-1	Unknown
					0	Normal

					1	Trouble
.WirelessKeyBatteryState	Wireless Key Battery State	Int16	R	PC4401 IT-100	-1	Unknown
					0	Normal
					1	Trouble
.HandheldKeypadBatteryState	Handheld Keypad Battery State	Int16	R	PC4401 IT-100	-1	Unknown
					0	Normal
					1	Alarm
.AuxiliaryInputAlarm	Auxiliary Input Alarm State	Int16	R	IT-100	-1	Unknown
					0	Normal
					1	Alarm
.HomeAutomation	Escort 5580 module State	Int16	R	IT-100	-1	Unknown
					0	Normal
					1	Trouble
. FireState	Fire State	Int16	R	IT-100	-1	Unknown
					0	Normal
					1	Trouble
.WireSmokeAlarmState	A 2-wire smoke alarm State	Int16	R	PC4401	-1	Unknown
					0	Normal
					1	Alarm
. WireSmokeTroubleState	A 2-wire smoke zone trouble State	Int16	R	PC4401	-1	Unknown
					0	Normal
					1	Trouble
. CombusState	Combus power State	Int16	R	PC4401	-1	Unknown
					0	Normal
					1	Trouble
.Ground	EGND connection State	Int16	R	PC4401	-1	Unknown
					0	Normal
					1	Trouble

. WaterflowAlarm	Waterflow Alarm State	Int16	R	PC4401	-1	Unknown
					0	Normal
					1	Alarm
. WaterflowTrouble	Waterflow Trouble State	Int16	R	PC4401	-1	Unknown
					0	Normal
					1	Trouble
.DuressAlarm	Duress Alarm State	Int16	R/W	PC4401 IT-100	-1	Unknown
					0	Normal
					1	Alarm
						COMMANDS:
					13	Reset Duress Alarm
.FireKey	Fire Key State	Int16	R/W	PC4401 IT-100	-1	Unknown
					0	Normal
					1	Alarm
						COMMANDS
				IT-100	351	TriggerAlarm [fire]
.AuxiliaryKey	Auxiliary Key State	Int16	R/W	PC4401 IT-100	-1	Unknown
					0	Normal
					1	Alarm
						COMMANDS
				IT-100	352	TriggerAlarm [Auxiliary]
.PanicKey	Panic Key State	Int16	R/W	PC4401 IT-100	-1	Unknown
					0	Normal
					1	Alarm
						COMMANDS
				IT-100	353	TriggerAlarm [Panic]
LastUpdate	Data Last Update	String	R	PC4401 IT-100		
.Command	Command SUBSYSTEM	Int16	R/W	PC4401 IT-100		COMMANDS:
				PC4401 IT-100	10	Poll
				PC4401 IT-100	11	Status Request
				PC4401 IT-100	12	Set Time and Date
				PC4401 IT-100	13	Reset Duress Alarm

				IT-100	30	Label Request
				IT-100	31	Time Stamp Control 31(1 [enable] or 0 [disable]) ex. 310 or 311
				IT-100	32	TimeDateBroadcastControl 32(1 [enable] or 0 [disable]) ex. 320 or 321
				IT-100	33	TemperatureBroadcastContr ol 33(1 [enable] or 0 [disable]) ex. 330 or 331
				IT-100	34	VirtualKeypadControl 34(1 [enable] or 0 [disable]) ex. 340 or 341
				IT-100	35	TriggerAlarm 35(1 [fire] or 2 [Ambulance] 3 [panic]) ex. 351 or 352 or 353
				IT-100	36	GetTemperatureSetPoint 36(1 - 4) ex. 361 or 362 or 363 or 364
				IT-100	37	BaudRateChange 37(0 - 4) ex. 370 or 371 or 372 or 373 or 374
	SUBSYSTE	M*.PARTI	TION *			
.Ready	Ready to arm State	Int16	R	PC4401 IT-100	-1	Unknown
					0	Ready
					1	NoReady
.Alarm	Alarm State	Int16	R/W	PC4401 IT-100	-1	Unknown
					0	Normal
					1	Alarm
						COMMANDS:
				PC4401 IT-100	12	Reset Alarm
.Arm	Armed State	Int16	R/W	PC4401 IT-100	-1	Unknown
					0	Armed
					1	Disarmed
						COMMANDS:
				PC4401 IT-100	10	Arm
				PC4401 IT-100	11	Disarm For IT-100 is required user code configured in the xml file.

				IT-100	30	ArmStay
				IT-100	31	ArmArmedNoEntryDelay
				IT-100	32	ArmWithCode Required user code configured in the xml file.
.Trouble	Trouble Status LED on keypad	Int16	R	IT-100	-1	Unknown
					0	Normal
					1	Trouble
.Command	Command	Int16	R/W	PC4401 IT-100		COMMANDS:
				PC4401 IT-100	10	Arm
				PC4401 IT-100	11	Disarm For IT-100 is required user code configured in the xml file.
				PC4401 IT-100	12	Reset Alarm
				IT-100	30	ArmStay
				IT-100	31	ArmArmedNoEntryDelay
				IT-100	32	ArmWithCode Required user code configured in the xml file.
	SUBSYS	TEM*.ZON	NA *			
.Open	Open State	Int16	R	PC4401 IT-100	-1	Unknown
					0	Quiet
					1	Active
.Alarm	Alarm State	Int16	R	PC4401 IT-100	-1	Unknown
					0	Quiet
				PC4401	1	Active
.Tamper	Tamper State	Int16	R	IT-100	-1	Unknown
					0	Quiet
				PC4401	1	Active
.Fault	Fault State	Int16	R	IT-100	-1	Unknown
					0	Quiet
	Conoral Davias Potters				1	Active
.Battery	State	Int16	R	PC4401	-1	Unknown
					0	Normal
					1	Alarm

. DoorForcedState	Access Control Door Froced State (alarm state: when an access controlled door has been forced open)	Int16	R	PC4401	-1	Unknown
					0	Normal
					1	Alarm
. DoorOpenAlarmState	Access Control Door has State (alarm state: when the door has been kept open past the programmed Door Open time)	Int16	R	PC4401	-1	Unknown
					0	Normal
					1	Alarm
. Bypass	Bypass State	Int16	R/W	PC4401	-1	Unknown
					0	Unbypassed
					1	Bypassed
						COMMANDS:
				PC4401	20	Bypass
				PC4401	21	Unbypass
.Command	Command	Int16	R/W	PC4401 IT-100		COMMANDS:
				PC4401	20	Bypass
				PC4401	21	Unbypass

Table 1 OPC TAGs