OPTO 22

RECOMMENDED KEPServerEX SETTINGS FOR groov

Use this technical note to make sure that you are using Opto 22's recommended settings in the KEPServerEX[®] communication platform for successful communication with *groov*.

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CONFIGURING THE WINDOWS FIREWALL

If your OPC UA server is not on the same computer as *groov*, inbound traffic to the OPC UA server needs to be able get through the firewall on the port used by the server. To allow access through the firewall requires adding an Inbound Rule to the Windows Firewall on the computer where the OPC UA server is installed.

As an example, the following instructions describe how to add in Windows 7 the Inbound Rule for port 49320, the default port for the KEPServerEX 5 server.

- 1. After you have successfully installed the server, open the Windows Control Panel.
- 2. If icons are displayed in the Control Panel, click Windows Firewall. If categories are displayed in the Control Panel, click System and Security and then click Windows Firewall.
- 3. In the left panel, click Advanced settings.



The Windows Firewall with Advanced Security dialog box opens.

4. In the left panel, click Inbound Rules.



5. In the right panel, click New Rule.



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6. For Rule Type, select Port. Click Next.

0	Program	
	Rule that controls connections for a program.	
0	Port	
	Rule that controls connections for a TCP or UDP port.	
\odot	Predefined:	
	BranchCache - Content Retrieval (Uses HTTP)	

7. For Protocol and Ports, select Specific local ports and enter 49320 (the default Kepware port). Click Next.



8. For Action, select "Allow the connection." Click Next.



9. For Profile, select Domain and Private. Click Next.



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en does this rule apply?
Domain Applies when a computer is connected to its corporate domain.
Private Applies when a computer is connected to a private network location.
Public Applies when a computer is connected to a public network location.

- 10. For Name, enter a descriptive name such as "Kepware OPC-UA Server."
- **11.** Click Finish.
- 12. Exit the Windows Firewall and Control Panel dialog boxes.

DEFAULT APPLICATION SETTINGS

When you install KEPServerEX, make sure to select the following settings on the Default Application Settings page:

- Allow client applications to request data through Dynamic Tag addressing: This option must be selected so that *groov's* Dynamic Tag feature will work.
- Allow anonymous login for UA Client Sessions: This option must be selected in order for *groov* to work at all.



RUNTIME CONFIGURATION SETTINGS

Once KEPServerEX has been installed, follow these steps to make sure the Runtime configuration options that affect *groov's* functionality are set correctly.



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1. Click Start > KEPServerEX 5 Configuration, or right-click the KEPServerEX icon in the system tray and choose Configuration.

	Configuration
	Start Runtime Service
	Stop Runtime Service
	Reinitialize
	Reset Event Log
4	The second se

- 2. Select File > Project Properties, and then click the OPC UA tab.
 - Allow anonymous login: Set to Yes.
 - **Return tag properties:** Set to No. Setting this item to Yes can greatly increase the number of tags imported by *groov*.
 - Return address hints: Set to No.

	Identification OPC DA Settings OPC	C DA Compliance OPC	UA OPC AE	
to Yes		Yes		-
10105	Max connections	100		
	Session timeouts	15.60		
	Minimum (s)	15		
	Maximum (s)	60		
	Tag cache timeout (s)	5		_
	Browsing			
ta Na	Return tag properties	No		
	Return address hints	No		+
	Allow anonymous login Important: You must use Server Adm allowed. Restore Defaults	ninistration to define user	s if anonymous login are not	
		or lo i	1	

- 3. Click OK.
- **4.** Select Runtime > Reinitialize.





SERVER ENDPOINT SETTINGS

You must configure at least one server endpoint that can be reached by *groov*, but you might have more depending upon your PC and its network interfaces. You'll want at least one endpoint for the PC's hostname (e.g. opc.tcp://yourhostname.OPTO22.COM:49320). The default Kepware port is 49320.

1. Right-click the KEPServerEX icon in the system tray and choose OPC UA Configuration.



2. Click the Server Endpoints tab.

	K.	OPC UA Config	uration Manage	er			×
	[Server Endpoints	Trusted Clients	Discovery Servers	Trusted Servers	Instance Certificates	
		URL		1	Security		
Server endpoint		opc.tcp://DS	carr-w7.0PTO22	.com:49320	Basic 128R sa 15	i (S,SE), Basic256 (S,SE)	
Enabled —		Enabled					
		<u>A</u> dd	<u>E</u> dit	Remove			
	N	ote: Server Runtin	ne reinitialization i	is required to utilize o	hanges.	Close	Help

- 3. Make sure there is a server endpoint and that it is enabled.
- 4. Highlight the endpoint and click Edit. If you need to add a server endpoint, click Add instead.
- 5. On the Endpoint Definition dialog box, under Security Policies, make sure None is selected, then click OK.



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	TCP Connection
	Network Adapter: Default
	Port Number: 49320
	opc.tcp://DScarr-w7.OPTO22.com:49320
	Security Policies
None —	V None
	Øasic128Rsa15 Sign; Sign and Encrypt ▼
	☑ Basic256 Sign; Sign and Encrypt ▼

6. Click Close.

ANONYMOUS CLIENTS PROPERTIES

1. Right-click the KEPServerEX icon in the system tray and choose Settings.



- 2. Click the User Manager tab.
- 3. Double-click Anonymous Clients to open the User Group Properties dialog.



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- 4. Under I/O Tag Access, make sure **Dynamic addressing** is set to Allow. If set to Deny, then *groov* cannot use dynamic tags.
- Under Browse Project Namespace, make sure that Browse is set to Allow.
 If set to Deny, then *groov* cannot import any tags. The tags will be imported, but it will look to *groov* like
- 6. Click the Security Policies tab.

the server is empty.



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KEP ServerEX Setting	5			
Administration	Configuration	Runtime Process	Runtime Options	
Event Log	ProgID Redirect	User Manager	Security Policies	
Client Acces	s Policy ons assigned to Administra ons assigned to Anonymou amic Addressing Tags em Tags rnal Tags vsing ons assigned to Server Use	tors is Clients ers		
	ОК	Cancel Ap	ply Help	

There are many options under Permissions assigned to Anonymous Clients which might affect *groov*. These options provide very precise control, down to individual tags. Review this section if you are having difficulty importing tags or using either imported or dynamic tags.

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