# **Remote Device Startup**

## System Requirements

To make use of this feature the following requirements must be matched.

- All computers must be on the same network.
- The product must be installed on both computers.
- A WebServer application (e.g.: TWebServer, IIS) must be running on the remote computer.

### How to Use

To enable this feature, your Project should make use of a Communication Protocol. In your Engineering environment, navigate to the **Devices > Channel** T ab, and create a new Channel for one of the protocols on the list.

Once a Channel is created, you will find a column called RemoteSettings in the configuration grid.

$\int$	Channels Nodes Points AccessTypes											
	Installed Protocols: AB Rockwell - ControlLogix/CompactLogix devices  Channel: Create new											
	Drag a column he	ader here to group						Filter by Nar	er by Name:			
Ľ	Name	Protocol	ProtocolOptions	Interface	Settings	Timeout	InitialState	RemoteSettings	Description			
-	ControlLogix1	ControlLogix		тсрір					ControlLogix			

A If the column is not visible on the grid, you need to enable it by right-clicking the grid header, and selecting it from the list.

Channels Channels Channels Channels	Nodes Points Acce AB Rockwell - ControlLogix/CompactLogix Create new ader here to group	devices 💌 🧰	Help 🥜				Filter by Name:
Name	Protocol	ProtocolOptions	Interface	Settings	Timeout	InitialState	Description
ControlLogix1	ControlLogix		TCPIP			ID V Name Protocol ProtocolOptions Interface Settings Timeout InitialState RemoteSettings DriverVersion Level Category LockState LockOwner DateModified DateCreated V Description	iontrolLogix

In the Initial State column, select the Remote option from the ComboBox.

$\int$	Channels	Nodes Points Acc	essTypes									
Installed Protocols: Modbus Master - TCP/IP and RS232 devices Help												
	Drag a column he	ader here to group						Filter by Name:				
	Name	Protocol	ProtocolOptions	Interface	Settings	Timeout	InitialState	RemoteSettings	Description			
	modbus	modbus	BlockSize=250;En	TCPIP			Remote 💌		Modbus Maste			
							Enabled					
							Disabled Remote					
							Reserved					

This feature is available for all of the available protocols.

If the channel is either PI, Tundra or Prediktor, the tag's Historical Data that was configured in the **Device > Points** tab is returned by the Remote Computer.

Important
Some protocol drivers must be executed by <b>Windows Users</b> that contain certain access permissions (e.g.: PI). This means that the <b>TWebServe r</b> or <b>IIS</b> must be executed by the same <b>Windows User</b> (even when the Project runs as a service).

#### **Channel Configuration**

To start the remote setup, navigate to the **Devices > Channels** tab. Under the *RemoteSettings* column, insert the IP Address where the device will run remotely.

ſ	~	Channels	lodes Points A	AccessTypes						
		Installed Protocols: Channel:	Modbus Master - TCP/IP and RS232 de	vices  Help Run Simulator	•					
ľ	I	Drag a column he	ader here to group	_	_		_	_	Filter by Name:	
	(	Name	Protocol	ProtocolOptions	Interface	Settings	Timeout	InitialState	RemoteSettings	Description
1	1	nodbus	modbus	BlockSize=250;Encodi	тсрір				RemoteSettings	Modbus M
									PrimaryIP	127.0.0.1
	l									

Any other tab related to those Channel settings (Nodes and Points) are configured as they would be in a local configuration.

## **Project in Execution**

Before running the Project, there are some important details that must be taken into account:

• The Remote Device will be executed remotely using the settings from the Device/Channels/RemoteSettings option.

- The Project (TStartup) will connect to the remote computer that is running the **TWebServer** or **IIS** through the ProjectServer. Format: *IP:port* (e. g.: 192.168.1.1:3100 default port is 80).
- Windows Firewall or any other firewall in every router must enable some Inbound and Outbound ports on both computers.
- 1. WebServer port 80, 3100 or other.
- 2. TServer port 3101 or other.

TWebServer or IIS only needs to be executed on the Remote Computer.

Once the Project is launched, you will notice a non-default message in the TStartup dialog window, stating that the Module Device was started remotely.

Starting Server	
quinta-feira, 5 de nove	mbro de 2020 10:56:42
/project:	Projects Meetingers torog ' /onlineConfig:true /redundancy /ip1:127.0.0.1 /ip2:192.
Server Started successful	ly.
Starting Module Device (	Channel: modbus) :: Remote: 192.168.0.111
Starting Module RichClie	nt.
Project started.	

A process called *TRemoteDevice* can be found running in the Task Manager on the Server computer. This application is responsible for launching the Device Module on the Remote PC.

#### 🙀 Gerenciador de Tarefas

Arquivo Opções Exibir

Processos	Desempenho	Histórico de	e aplicativos	Inicializar	Usuários	Detalhes	Serviço	s			
N	~		DID		<b>C</b>			CRU	M	16 July 16 July 20 July 20	
Nome			PID		Status	Status		CPU	Memoria (	Virtualização do UAC	
🔅 SystemS	ettings.exe		8764		Suspen	50		00	0 K	Desabilitado	
🔅 SystemS	ettingsBroker.e	(e	16004		Em exe	cução		00	2.064 K	Desabilitado	
📧 taskhost	w.exe		6844		Em exe	cução		00	3.620 K	Desabilitado	
📧 taskhost	w.exe		15936		Em exe	cução		00	1.004 K	Não permitido	
👰 Taskmgr	.exe		22304		Em exe	cução		01	19.324 K	Não permitido	
🔁 TeamVie	wer_Service.exe		6988		Em exe	cução		00	1.076 K	Não permitido	
💷 Tempo (	Ocioso do Sister	na	0		Em exe	Em execução			8 K		
📧 TextInpu	itHost.exe		22676		Em exe	Em execução		00	5.984 K	Desabilitado	
📧 THardke	yService.exe		20336		Em exe	Em execução		00	7.516 K	Não permitido	
🎕 TManag	erExe.exe		18804		Em exe	Em execução		00	192.420 K	Desabilitado	
TRemote	eDevice.exe		18632		Em exe	cução		01	29.312 K	Desabilitado	
💕 TRichCli	ent.exe		7180		Em exe	cução		00	84.612 K	Desabilitado	
TServer.	exe		9920		Em exe	cução		00	93.516 K	Desabilitado	
TStartup	.exe		3856		Em exe	cução		00	57.788 K	Desabilitado	
📧 uihost.e	xe		12404		Em exe	Em execução		00	1.176 K	Desabilitado	
UserOOBEBroker.exe			5784		Em exe	cução		00	980 K	Desabilitado	
Video.UI.exe			8644		Suspen	Suspenso		00	0 K	Desabilitado	
📧 wininit.exe			776		Em exe	Em execução		00	4 K	Não permitido	
💷 winlogo	n.exe		916		Em exe	cução		00	420 K	Não permitido	
WinStor	e.App.exe		18024		Suspen	so		00	0 K	Desabilitado	

Menos detalhes

On the Remote computer, we can also look at the Task Manager and browse for that same *TRemoteDevice*. The command line for this process will show more information related to the Channel we are running on remote machine, such as the Channel Name, Server's IP, and Port Number.

5-Devinsticom - Co	inexão de	e Area de Trabalho Re	mota			- 0	×
P					Task Manager	- 0	x
File Options View							
Processes Performance	Users	Details Services					
Name	PID	Status	CPU	Memory (p	Command line	Description	^
vmtoolsd.exe	1376	Running	00	7,312 K	*C:\Program Files\VMware\VMware Tools\vmtoolsd.exe"	VMware Too	Is Co
vmtoolsd.exe	4784	Running	00	2,104 K	*C:\Program Files\VMware\VMware Tools\vmtoolsd.exe" -n vmusr	VMware Too	Is Co
vmtoolsd.exe	1956	Running	00	2,100 K	*C:\Program Files\VMware\VMware Tools\vmtoolsd.exe" -n vmusr	VMware Too	ls Co
wmacthlp.exe	1008	Running	00	832 K	"C:\Program Files\VMware\VMware Tools\vmacthlp.exe"	VMware Acti	ivatio
VGAuthService.exe	1204	Running	00	3,196 K	*C:\Program Files\VMware\VMware Tools\VMware VGAuth\VGAuthService.exe"	VMware Gue	est AL
unsecapp.exe	2848	Running	00	1,116 K	C:\Windows\system32\wbem\unsecapp.exe -Embedding	Sink to receiv	ve as
TWebServer.exe	4900	Running	00	31,696 K	*C:\Program Files (x86)\Tatsoft\FactoryStudio\TWebServer.exe''	TWebServer	
TRemoteDevice.exe	6256	Running	00	28,680 K	*Ct/Program Files (x86)\Tatsoft\FactoryStudio\fs-8.1\TRemoteDevice.exe" /modules.modules.device /channel:modbus /ip1:192.168.0.216 /port1:3101 /us	TRemoteDev	ice
TRemoteDevice.exe	4728	Running	00	5,612 K	*C:\Program Files (x86)\Tatsoft\FactoryStudio\fs-8.1\TRemoteDevice.exe"	TRemoteDev	/ice 🗎
TManagerExe.exe	4352	Running	00	304,248 K	*C:\Program Files (x85)\Tatsoft\FactoryStudio\fs-8.1\TManagerExe.exe* /project:*C:\FactoryStudio\Projects\NGFMonitor.tproj"	TManagerEx	e
THardkeyService.exe	1508	Running	00	5,424 K	*C:\Program Files (x86)\INS3\PlantloT\THardkeyService.exe"	THardkeySer	vice
THardkeyService.exe	1928	Running	00	10,824 K	*C:\Program Files (x86)\Tatsoft\FactoryStudio\THardkeyService.exe*	THardkey/Ser	vice
Taskmgr.exe	4648	Running	00	8,472 K	*C:\Windows\system32\taskmgr.exe* /4	Task Manage	er
taskhostex.exe	2188	Running	00	2,092 K	taskhostev.exe	Host Process	s for \
taskhostex.exe	908	Running	00	1,264 K	taskhosteuere	Host Process	s for \
System interrupts	-	Running	00	OK		Deferred pro	cedu
System Idle Process	0	Running	99	4 K		Percentage	oftim
System	4	Running	00	28 K		NT Kernel &	Syste
sychost.exe	852	Running	00	4,004 K	C:\Windows\system32\svchost.exe -k DcomLaunch	Host Process	s for \
sychost.exe	888	Running	00	4.032 K	C:\Windows\system32\sychost.exe -k RPCSS	Host Process	s for \
svchost.exe	524	Running	00	12,692 K	C:\Windows\System32\svchost.exe -k LocalServiceNetworkRestricted	Host Process	s for \
sychost.exe	748	Running	00	26,716 K	C:\Windows\system32\svchost.exe -k netsvcs	Host Process	s for \
sychost.exe	880	Running	00	5,636 K	C:\Windows\system32\sychost.exe -k LocalService	Host Process	s for \
svchost.exe	1060	Running	00	6,444 K	C:\Windows\system32\svchost.exe -k NetworkService	Host Process	s for \
sychost.exe	1228	Running	00	4,976 K	C:\Windows\system32\svchost.exe -k LocalServiceNoNetwork	Host Process	s for \
sychost.exe	2036	Running	00	5,304 K	C:\Windows\System32\svchost.exe -k LocalSystemNetworkRestricted	Host Process	s for \
sychost.exe	3284	Running	00	41,848 K	C:\Windows\System32\svchost.exe -k termsvcs	Host Process	s for \
sychost.exe	3340	Running	00	1,316 K	C:\Windows\system32\svchost.exe -k NetworkServiceNetworkRestricted	Host Process	s for \
spoolsv.exe	1392	Running	00	3,088 K	C:\Windows\System32\spoolsv.exe	Spooler Subs	Syster
< cmcr ava	127	Running	00	779.¥ Ⅲ		Windows So	rcion V

Fewer details

End task