The following steps will take you through the configuration of a DDE/OPC topic for a ProSoft or ProLinx DFNT product. RSLinx will act as the driver to the module and once this is setup you can then get the data into an RSView, WonderWare, or any other application that will support either DDE or OPC topics.

In this sample we will configure the driver, then show an example of how to use this DDE/OPC topic to an Excel Spreadsheet and also use the OPC test client application.

The following table shows the revisions of RSLinx that support DDE/OPC topics:

	Lite	RSLinx for RSView	Single Node	OEM	SDK	Professional	Gateway
DDE Support (CF_Text, XL_Table, AdvanceDDE ¹)			X	X	X	X	X

To configure a DDE/OPC topic you will first need to setup the communications driver. From the pull down menu go to Communications -> Configure Drivers:

$\underline{\subseteq}$ ommunications	Station	DDE/OPC						
<u>R</u> SWho	<u>R</u> SWho							
Configure Drivers								
Configure Shortcuts								
Configure Clier	Configure Client Applications							
Configure CIP	Configure CIP Options							
Driver Diagnostics								
CIP Diagnostics								
Gateway Diagr	nostics							

The Configure drivers menu will appear:

	Add New	
RS-232 DF1 devices]	<u>H</u> elp
Ethernet devices		
Ethernet/IP Driver		
1784-KT/KTX(D)/PKTX(D)/PCMK for DH+/DH-485 devices		
1784-KTC(X) for ControlNet devices	Status	
DF1 Polling Master Driver	Stopped	Configure
1784-PCC for ControlNet devices	Bunning	
1784-PCIC(S) for ControlNet devices	Bunning	Charles
1747-PIC / AIC+ Driver	Bunning	Stargup
DF1 Slave Driver	Bunning	
S-S SD/SD2 for DH+ devices	Bunning	<u>S</u> tart
Virtual Backplane (SortLogixS8xx)	Bupping	
Devicence Drivers (1764-FCD7FCIDS,1770-KFD,SDINFT drivers)	Bupping	Stop
CLC-5 (DH+) Ethulator unver	Bupping	E
SEC 500 (DH465) Emulator anver	Bupping	.
Bemote Devices via Liny Gateman	Rupping	<u>D</u> elete
Mark CLCE OF A Diskamati DUNNING	 Dumning	
	nurining	

From here you can select either an "Ethernet devices" driver (use this driver when you wish to use the N10 file addressing for the module) or "Remote Devices via Linx Gateway" (to be used when wanting to use the Int_Data[0] addressing mode). Please refer to the user manual for the product for more information on the addressing of the module.

Select a driver and select <u>A</u>dd New:

Available Driver Types:		i
Ethernet devices	Add New	

You will now be prompted for a name, Press OK when done:

Add New RSLinx Driver	×
Choose a name for the new driver. (15 characters maximum)	ОК
AB_ETH-5	Cancel

Here in the next screen you will need to define an IP address for the module, in this example the IP address is 192.168.1.100:

Conf	ìgure driv		? ×			
St	ation Mappi	ng				
						. [
	Station	Host N	lame			Add <u>N</u> ew
	0	192.168	3.1.100			
	63	Driver				Delete
			OK	Cancel	Apply	Help
_			ОК	Cancel	Apply	Help

When done click on OK or <u>Apply</u>.

Now that the driver is defined, we can now define the DDE/OPC topic. On the DDE/OPC topic, select Topic Configuration:



In the below window, Click on NEW and give your topic a name (this will be your DDE/OPC topic name to be used in all references to this device).

DDE/OPC Topic Configuration	<u></u> ?	
Project: Default		
Topic List:	Data Source Data Collection Advanced Communication	
ProLinxETHDriver	Processor Type: SLC-503+ Data Collection Mode Polled Messages (mSec) Dunsolicited Messages Cache Unsolicited Data Send all unsolicited updates Communications Time-Out (Secs): 5 Use Symbols Limit Maximum Packets 20 Use Maximum Packet Size (Ethernet) Use Maximum Packet Size (Ethernet) Use Maximum Packets Coptimize poke packets Keep DeviceNet connection open Fail Unsolicited messages if data will be overwritten	
<u>N</u> ew <u>C</u> lone	Delete Apply Done Help	

Under the data collection tab, select the settings shown above. Then go to the Advanced Communication tab:

DDE/OPC Topic Configuration		<u>?</u> ×
Project: Default		
<u>I</u> opic List:	Data Source Data Collection Advanced Communication	
ProLinxETHDriver	Changing information on this tab may cause the information to no longer be connected to the correct object on the Data Source tab.	
	Communications Driver: AB_ETH-5 A-B Ethernet RUNNING	<u> </u>
	Processor Configuration	
	Station (decimal): 0	
	CLocal or Remote Addressing	
	<u>Bemote</u> <u>Configure</u> <u>AB ETH-5\0.0</u>	
	Number of errors before returning error to client:	
<u>N</u> ew <u>C</u> lone	Delete Apply Done Help	

Select the communications driver that was setup earlier. The go to the Local/Remote addressing tab. Here you will want to select <u>Remote</u>, then click on the Configure tab. The following menu will appear:

Remote Routing Configuration	
Bridge Device: Remote ControlNet	OK Cancel
Path to remote ControlNet port:	De <u>f</u> aults <u>H</u> elp
AB ETH-5\0	

Select the "Remote ControlNet" for the Bridge Device, then type the Name of the Communications Driver for the "Path to remote ControlNet port".

What this does is it sets the route path for the DFNT module. This step is critical and should not be overlooked. In some older versions of RSLinx this was done automatically, but for version 2.41 of RSLinx you must define this step manually.

Press Done.

The DDE/OPC topic has now been configured. The next steps will show you how to test this topic. One of the easiest ways is to use Microsoft Excel. To define this in Microsoft Excel you will need to use the following syntax:

=APPLICATION|TOPIC!ITEM

The '|' character (piping symbol) is used to separate the application and topic fields and the '!' (exclamation symbol) is used to separate the topic and item fields. For our example topic of ProLinx1, the entry into the cell is:

=RSLinx|ProLinxETHDriver!'N10:0'

When done press Enter.

If all is working correctly you should see the value in the module, like shown below:

	RICI	—	= =RSLinx[ProLinxETHDriver!'N10:0"				
	1	2	3	4	5	6	
1	0						
2							
3							

If you see #N/A, then the connection has not been made. This is shown below:

				-			
	R1C1	•	= =RSLinx ProLinxETHDriver!'N10:0'				
	1	2	3	4	5	6	
1	#N/A						
2							

Another tool that can be used is the OPC test client application. Under your Rockwell Software menu, go to RSLinx Tools, then OPC Test Client. From the pull down menu go to File -> New. The following window will appear:

Select an OPC Server	×
OPC Server Prog ID:	OK
RSLinx OPC Server	Cancel
Located Servers:	
HilscherGmbH.CifOpcServer Matrikon.OPC.DNP	Browse
RSLinx OPC Server RSLinx Remote OPC Server	
Node Name (Optional):	

Select RSLinx OPC Server, then check OK.

Next go to the pull down menu and select Group -> Add Group: Group Item Log View Win



Add New Group		×
		OK
Group <u>N</u> ame:	test	Cancel
Update <u>R</u> ate (mSec):	1000	
Time <u>B</u> ias:		A <u>o</u> tive <u>J</u> pdate Rate
% <u>D</u> eadband:	1	Allow Tjmeout
<u>A</u> dvise:	IConnectionPoint (Rev 2.0)

You will now need to give the group a name like shown below:

Now go to the Item -> Add Item: Item Log ⊻iew Window Help

	Add Item		
	<u>R</u> emove Item(s)	Del	
	Acti <u>v</u> e State Change <u>H</u> andle(s) Set <u>D</u> atatype		
v	Read From <u>C</u> ache		
	Sync Read	Ctrl+Alt+R	
	Sync Wri <u>t</u> e		
	Sync Wri <u>t</u> e AsyncIO AsyncIO2	• •	
	Sync Write AsyncIO AsyncIO2 Import Items	•	

Next the following window will appear:

Add New OPC Item		×
Items to be Added N10:0	Attributes Access Path: ProLinxETHDriver	OK Cancel
	Item <u>N</u> ame: N10:0	<u>A</u> dd Item
	Datatype: VT_EMPTY	⊻alidate
	Agray:	Item Properties
Datatype: Native	Array Filter: Access: A	II Items 💌
⊞-RSLinx OPC Server (Node: <loc< td=""><td>al>) RSLinx OPC Server (Node: <lo< td=""><td>ical>)</td></lo<></td></loc<>	al>) RSLinx OPC Server (Node: <lo< td=""><td>ical>)</td></lo<>	ical>)
You can add items using this dialog. before adding them. Results will be o	Click on validate items if you wish to check your items displayed from this action.	s against the server

For the Access <u>Path</u> you will want to give the name of the DDE/OPC topic that was configured in RSLinx. The Item <u>N</u>ame will be the item in the DFNT module. When done press OK. You should then see the following:

ItemID	Sub Value	Sub Ouality	Sub Updates	Update Rate	Run. Ava
N10:	0 0	Good	1	0	0.009439

If the Sub Quality is shown as Good, then all is working fine.

To issue a write to this location you could then follow these steps. First you will want to select the item, then a right mouse click will bring up the following menu:

ItemID	Sub Value	Sub Quality	Sub Updates	Update Rate	Run. Avg		
ON10:0	0	Good	1	0	0.002722	<u>A</u> dd Item <u>R</u> emove Item(s)	
						Active State ✔ Read From Cache Change Handle(s)	
						<u>S</u> ync Read Sync Wri <u>t</u> e	
						AsyncIO AsyncIO2	

. . . I



Frite Item		X
Selected Items N10:0	Item Information Access Path	ProLinxETHDriver
	Server Handle	0x03d70038
	Value (s)	500
		0
	Data Type	VT_12
	Array 🗖	Length 1
	Cancel	ОК

The Data Type should pull up as VT_I2. If it does not, then select it as VT_I2. Type the new value you wish to write to the DFNT module in the Value section. For this example I placed a value of 500 in the value field. When done press OK, you should then see your new value like shown below:

ItemID	Sub Value	Sub Quality	Sub Updates	Update Rate	Run. Avg
N10:0	500	Good	2	0	0.002496

Another way to verify this is to connect to the Debug port of the module. For this you will open a session of HyperTerminal, set the baud rate to 57,600, 8 data bits, 1 stop bit, no parity, and none for the Flow Control type. You will need to connect using a Null Modem cable from the module to your PC's serial port.

Press '?' to bring up the menu, then go to D for Database view. '?' will bring up the Database view menu, then you can select 'S' to Show Again. You should see something like this:

						· ·			
500	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0

DATABASE DISPLAY 0 TO 99 (DECIMAL)