

Pro-Server Data Saving to SQL via Microsoft Access with Proface LT3300S screen.

PURPOSE:

This document will show you how to set up the features to create a Pro-Server project to save data to Microsoft SQL Server 2008 R2 via Microsoft Access based upon a screen button & constant cycle (the address could also be a trigger from a PLC). You will see within the Trigger Condition there are other numerous ways such as a given time.

REQUIRED EQUIPMENT:

- | | | |
|----|-----------------|----------------------------------|
| 1. | S8VS-03024 | Omron 24VDC Power Supply |
| 2. | LT3300-S1-D24-K | Proface LT HMI Touch Screen |
| 3. | EKI-2528-AE | Advantech 8-Port Ethernet Switch |

REQUIRED SOFTWARE:

- | | | |
|----|------------------------------|-------------------------------------|
| 1. | GP-Pro EX v3.10.000 | Proface Screen Programming Software |
| 2. | Pro-Server EX v1.31.001 | Pro-Server Programming Software |
| 3. | Microsoft Access 2010 | Microsoft Office Software |
| 4. | Microsoft SQL Server 2008 R2 | Microsoft SQL Server |

REQUIRED CABLES:

- | | | |
|----|---------------------------------|---------------------------|
| 1. | CA3-USBCB-01 | USB HMI Programming Cable |
| 2. | Ethernet Cables (quantity of 2) | |

FILES:

- | | |
|-------------------------------|--------------------------------------|
| • ProServerDataSaving.doc | The file you are reading |
| • ProServerDataSaving.prx | LT HMI Program |
| • ProServerDataSaving.npx | Pro-Server Program |
| • ProServerDataSaving.mdb | Microsoft Access file |
| • ProServerDataSaving_SQL.bak | Microsoft SQL Server Database backup |

HELPFUL MANUALS:

- GP-Pro EX Reference Manual
- Pro-Server EX Reference Manual

INSTRUCTIONS:

1. Connect all equipment & power-up everything. Connect all Ethernet cables. Connect 120VAC to the input of the 24VDC power supply. Connect 24VDC to Proface screen and Advantech switch.
2. Make the following changes in the GP-Pro EX software. This sets the screen type, which matches the part number used within this project.

Display	
Display Unit	Change Display Unit
Series	LT3000 Series
Model	LT-3300S
Orientation	Landscape

Specifications	
Screen Size	5.7 inch
Resolution	320 x 240 pixels (QVGA)
Display Unit	STN Color LCD
Display Colors	4,096 Colors
Internal Memory	6 MB
Backup Memor	128 KB
COM1	RS-232C/RS-422(RS-485)
COM2	
USB(A)	1 Ports
USB(mini-B)	None
LAN	1 Ports
CF Card	None

3. Make the following changes in the GP-Pro EX software. This sets the Device/PLC type to nothing (since the data will come directly from the Proface screen).

Display Unit	
Series	LT3000 Series
Model	LT-3300S
Orientation	Landscape

Device/PLC

[Add Device/PLC](#) [Delete Device/PLC](#)

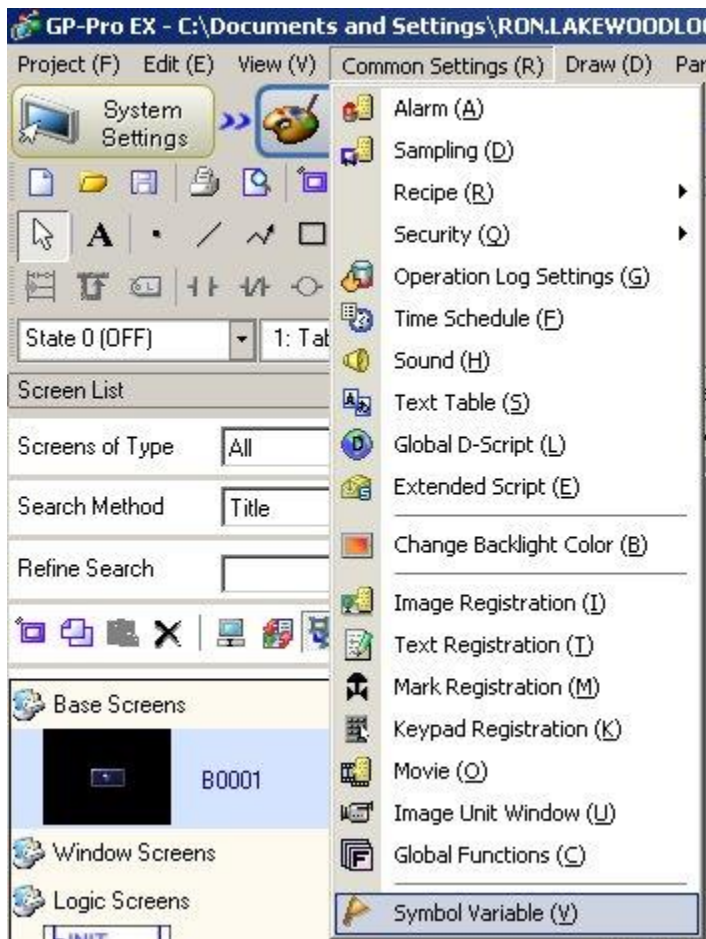
Text Data Mode [Change](#)

Lakewood Automation

27911 Clemens Road

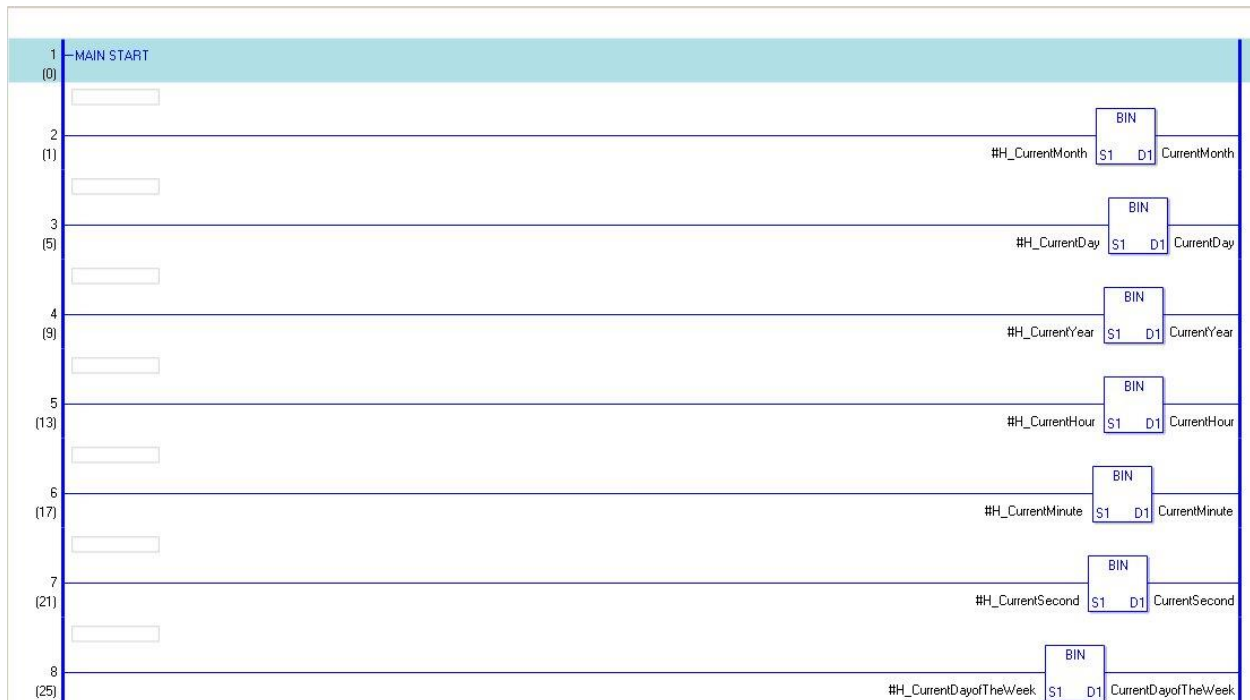
Westlake, Ohio 44145

4. Make the following changes in the GP-Pro EX software. This will create the Symbol Tags used throughout the rest of the project (this will also save time by uploading the tags into the Pro-Server file). As you see, all Symbols have been created as “Word Address” or “Bit Address”. A physical address (whether internal to the Proface screen or PLC) must be used for Pro-Server to work.

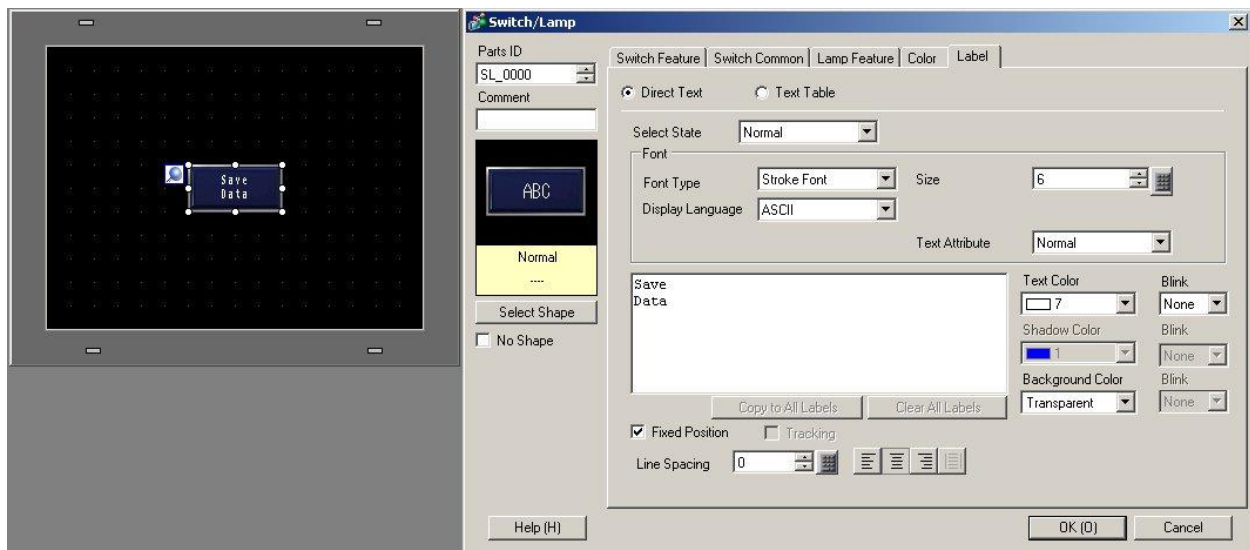
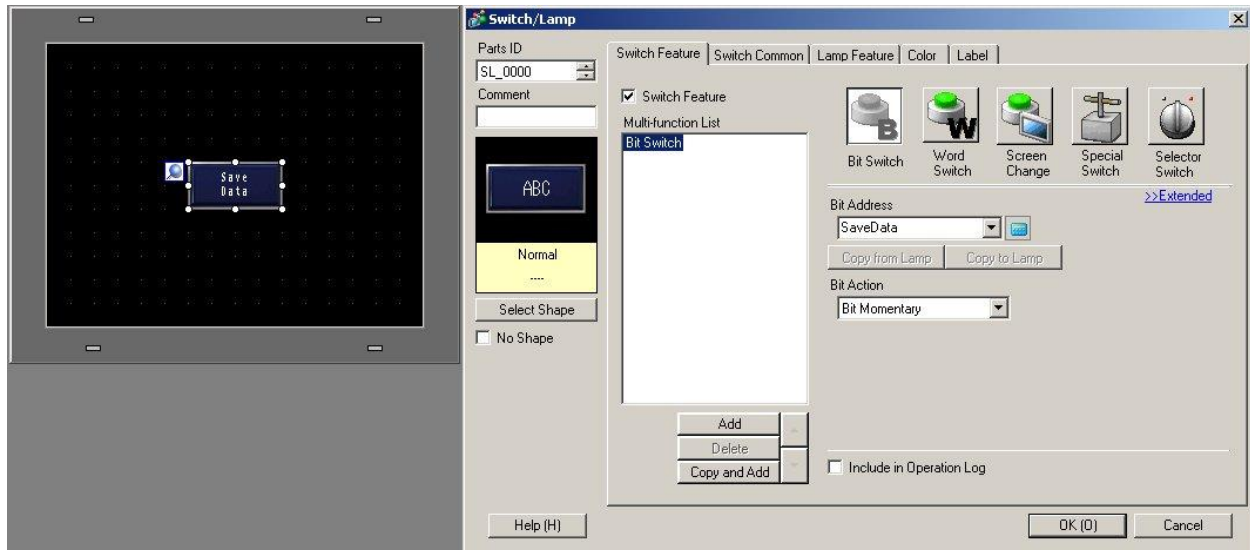


Edit Symbol Variables							
	Name	Type	Array	Count	Address	Retentive	Comment
1	CurrentDay	Word Address	<input type="checkbox"/>		[#INTERNAL]USR00000		
2	CurrentDayOfTheWeek	Word Address	<input type="checkbox"/>		[#INTERNAL]USR00001		
3	CurrentHour	Word Address	<input type="checkbox"/>		[#INTERNAL]USR00002		
4	CurrentMinute	Word Address	<input type="checkbox"/>		[#INTERNAL]USR00003		
5	CurrentMonth	Word Address	<input type="checkbox"/>		[#INTERNAL]USR00004		
6	CurrentSecond	Word Address	<input type="checkbox"/>		[#INTERNAL]USR00005		
7	CurrentYear	Word Address	<input type="checkbox"/>		[#INTERNAL]USR00006		
8	SaveData	Bit Address	<input type="checkbox"/>		[#INTERNAL]USR0010000		
*							

- Make the following changes in the GP-Pro EX software. The logic will take the current time & date from the within the screen and convert it from BCD to Decimal into Symbol Tags.



6. Make the following changes in the GP-Pro EX software. This creates the button on the screen to trigger a save of data to the Excel file. The tag is created in the Symbol variable table.



7. Save the Proface screen file. Go Offline with the screen & change the IP address to 192.168.2.71. Download the Proface screen file. GP-Pro EX software is now done & can be closed after the software is done downloading.

8. Open up Microsoft Access. Create the following database(s). DataSaving table is being used for the ScreenButton trigger & DataSaving2 table is being used for the “CycleTrigger” (both explained later in this document). Here are some notes for each columns heading.

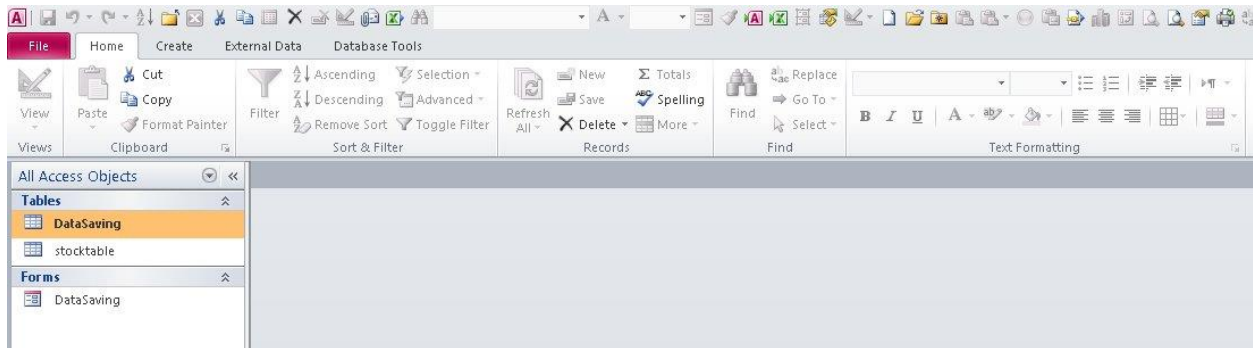
- SQL_DatabaseName is the name of the database created within Microsoft SQL Server 2008 R2.
- SQL_DatabaseTable is the name of the table created within Microsoft SQL Server 2008 R2.
- ProServerSymbol is the name of the symbols used within Pro-Server.
- SQL_ColumnName is the name for each column used within Microsoft SQL Server 2008 R2.
- Datatype pertains to the type of data being used within the project.

SQL_DatabaseName	SQL_DatabaseTable	ProServerSymbol	SQL_ColumnName	Datatype
SQL_DatabaseName	SQL_DatabaseTable	CurrentYear	CurrentYear	3
SQL_DatabaseName	SQL_DatabaseTable	CurrentMonth	CurrentMonth	3
SQL_DatabaseName	SQL_DatabaseTable	CurrentDay	CurrentDay	3
SQL_DatabaseName	SQL_DatabaseTable	CurrentHour	CurrentHour	3
SQL_DatabaseName	SQL_DatabaseTable	CurrentMinute	CurrentMinute	3
SQL_DatabaseName	SQL_DatabaseTable	CurrentSecond	CurrentSecond	3
SQL_DatabaseName	SQL_DatabaseTable	CurrentDayOfTheWeek	CurrentDayOfTheWeek	3

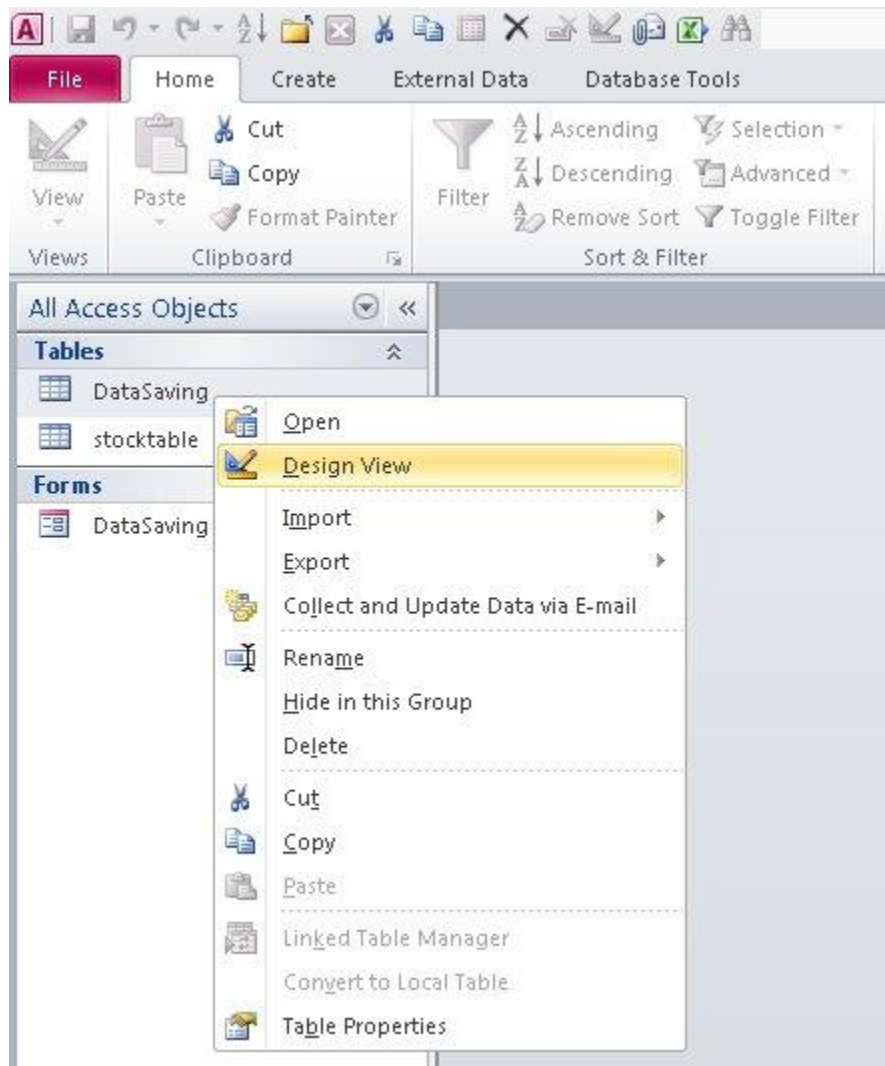
SQL_DatabaseName	SQL_DatabaseTable	ProServerSymbol	SQL_ColumnName	Datatype
SQL_DatabaseName	SQL_DatabaseTable	[#INTERNAL]LS0000	CurrentDay2	3
SQL_DatabaseName	SQL_DatabaseTable	[#INTERNAL]LS0001	CurrentDayOfTheWeek2	3
SQL_DatabaseName	SQL_DatabaseTable	[#INTERNAL]LS0002	CurrentHour2	3
SQL_DatabaseName	SQL_DatabaseTable	[#INTERNAL]LS0003	CurrentMinute2	3
SQL_DatabaseName	SQL_DatabaseTable	[#INTERNAL]LS0004	CurrentMonth2	3
SQL_DatabaseName	SQL_DatabaseTable	[#INTERNAL]LS0005	CurrentSecond2	3
SQL_DatabaseName	SQL_DatabaseTable	[#INTERNAL]LS0006	CurrentYear2	3

Value	Data type	Value	Data type
1	Bit	7	32 bits without decimal code
2	16 bits with decimal code	8	Hexadecimal 32 bits
3	16 bits without decimal code	9	BCD 32 bits
4	Hexadecimal 16 bits	10	Single precision floating point
5	BCD 16 bits	11	Double-precision floating point
6	32 bits with decimal code	12	Character string

9. Close the DataSaving & DataSaving2 tables.



10. Right-click on DataSaving. Select Design View.





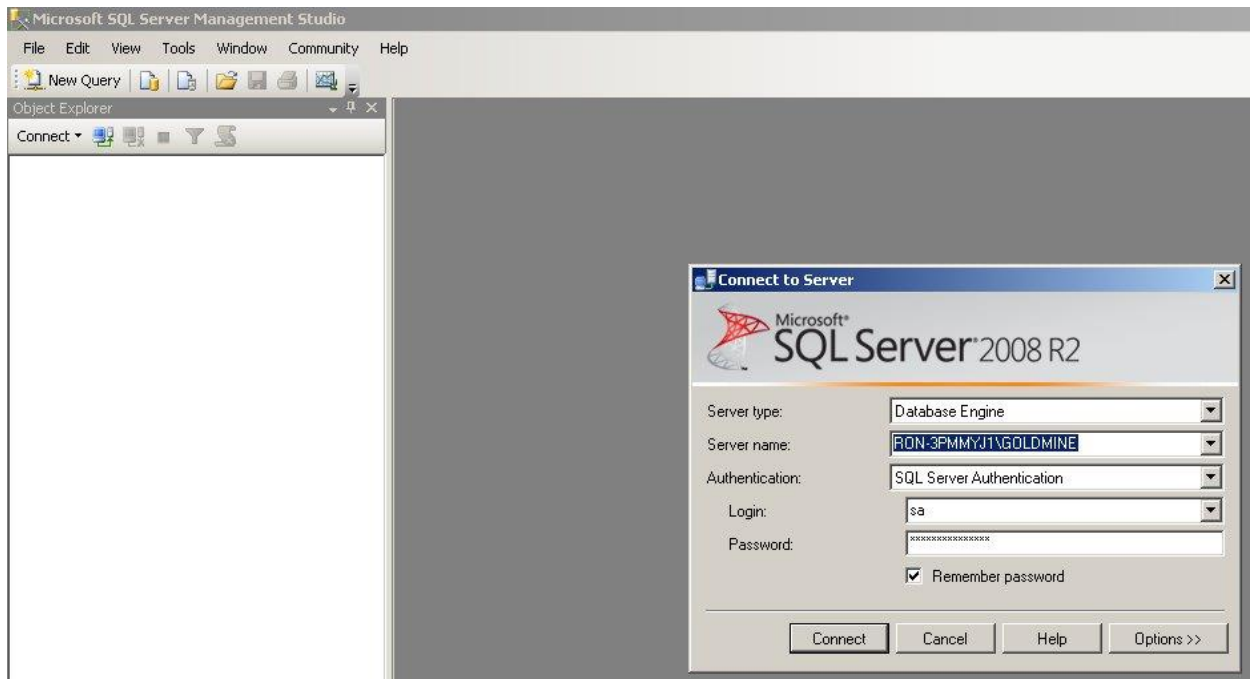
Westlake, Ohio 44145

11. Make the table as shown. Delete all unused rows (only the items show shall remain). Change Indexed to “No” for all items. Make sure this is done for the table DataSaving2 as well. Save the file.

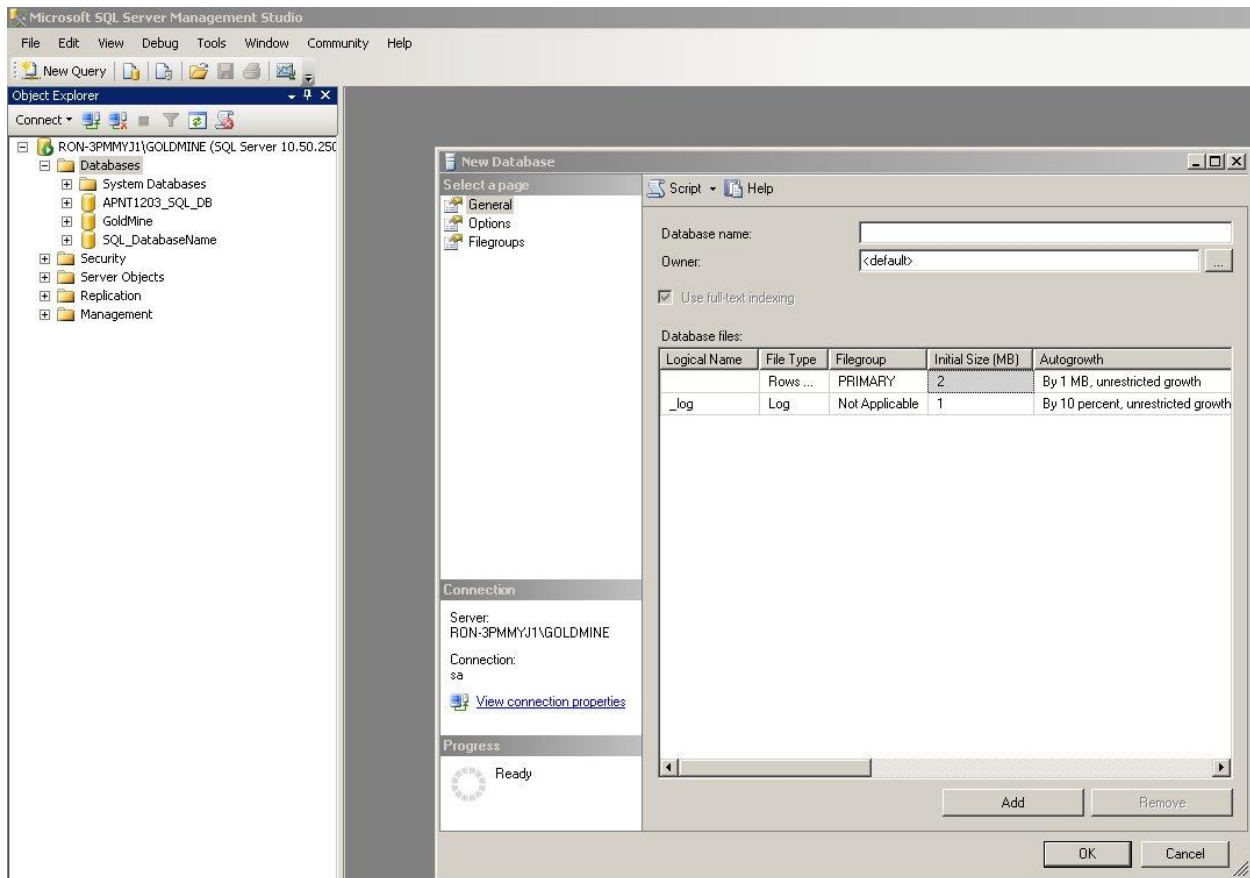
[illegible]

12. Microsoft Access is done. You may close & exit the software.

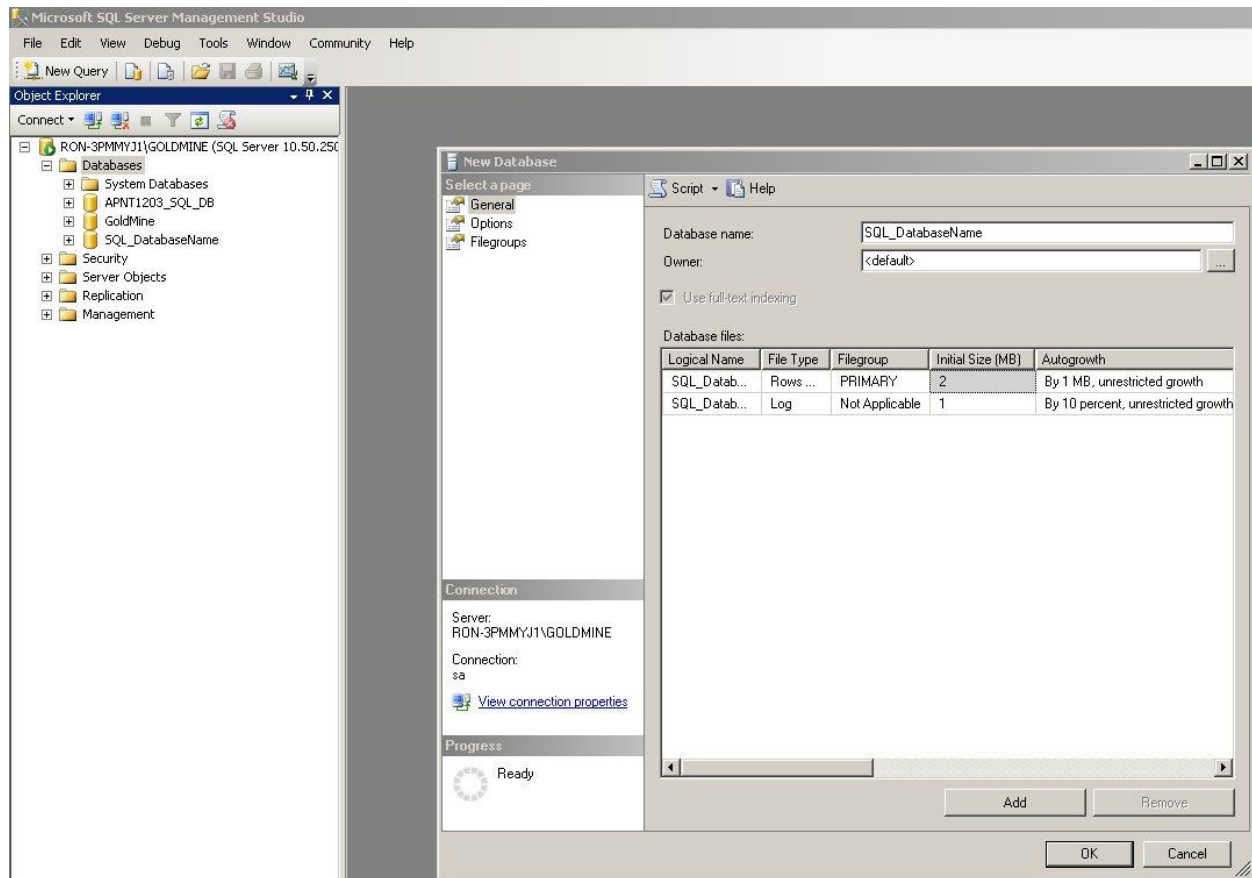
13. Open up Microsoft SQL Server 2008 R2. Login to your database.



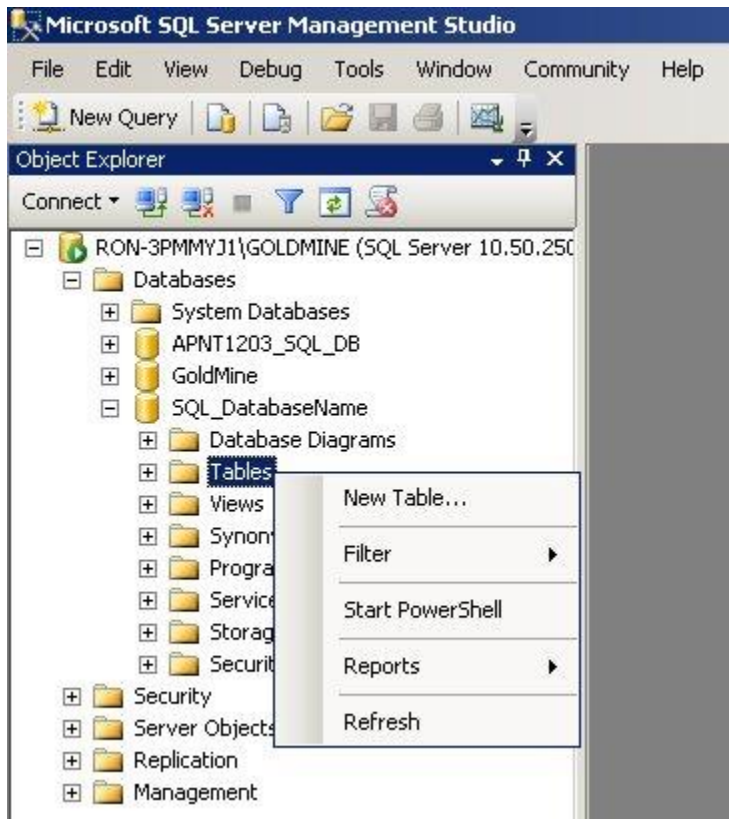
14. Right-click on Databases & select New Database.



15. Give the database a name (SQL_DatabaseName from step #8). Select OK.



16. Branch open SQL_DatabaseName. Right-click on Tables & select New Table...



17. Create the following table. Refer to Step #8 for the SQL_ColumnName for each item.
For the Column Name SmallDateTime, change the value in “Default Value or Binding” to getdate() as shown (this will give you a time & date stamp to search for data).

Microsoft SQL Server Management Studio

File Edit View Debug Table Designer Tools Window Community Help

Object Explorer

Connect

RON-3PMMYJ1\GOLDMINE (SQL Server 10.50.2500.13)

- Databases
 - System Databases
 - APNT1203_SQL_DB
 - GoldMine
 - SQL_UserName
 - Database Diagrams
 - Tables
 - System Tables
 - Views
 - Synonyms
 - Programmability
 - Service Broker
 - Storage
 - Security
 - Security
 - Server Objects
 - Replication
 - Management

RON-3PMMYJ1\...dbo.Table_1*

Column Name	Data Type	Allow Nulls
SmallDateTime	smalldatetime	<input checked="" type="checkbox"/>
CurrentYear	int	<input checked="" type="checkbox"/>
CurrentMonth	int	<input checked="" type="checkbox"/>
CurrentDay	int	<input checked="" type="checkbox"/>
CurrentHour	int	<input checked="" type="checkbox"/>
CurrentMinute	int	<input checked="" type="checkbox"/>
CurrentSecond	int	<input checked="" type="checkbox"/>
CurrentDayOfTheWeek	int	<input checked="" type="checkbox"/>
CurrentYear2	int	<input checked="" type="checkbox"/>
CurrentMonth2	int	<input checked="" type="checkbox"/>
CurrentDay2	int	<input checked="" type="checkbox"/>
CurrentHour2	int	<input checked="" type="checkbox"/>
CurrentMinute2	int	<input checked="" type="checkbox"/>
CurrentSecond2	int	<input checked="" type="checkbox"/>
CurrentDayOfTheWeek2	int	<input checked="" type="checkbox"/>
		<input type="checkbox"/>

Column Properties

(General)

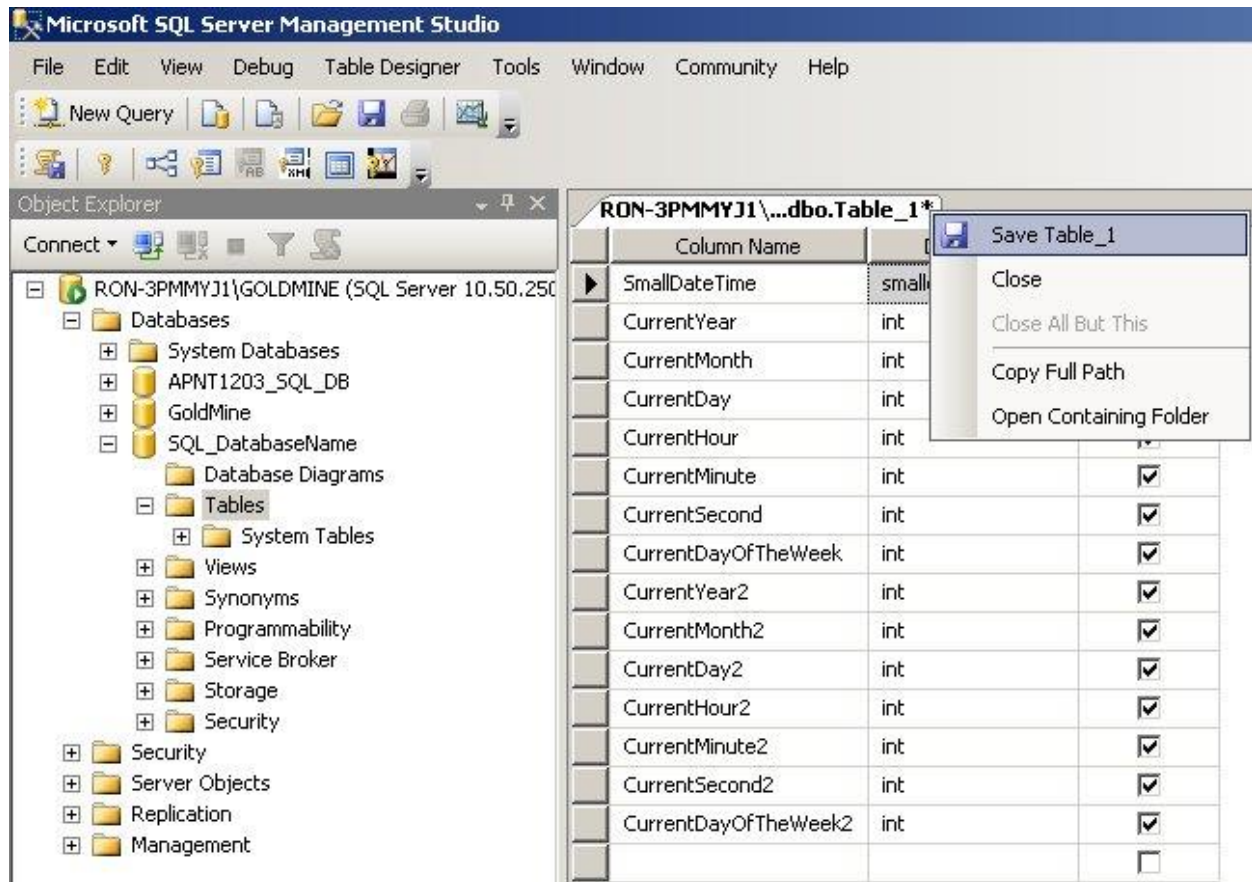
(Name)	SmallDateTime
Allow Nulls	Yes
Data Type	smalldatetime
Default Value or Binding	getdate()

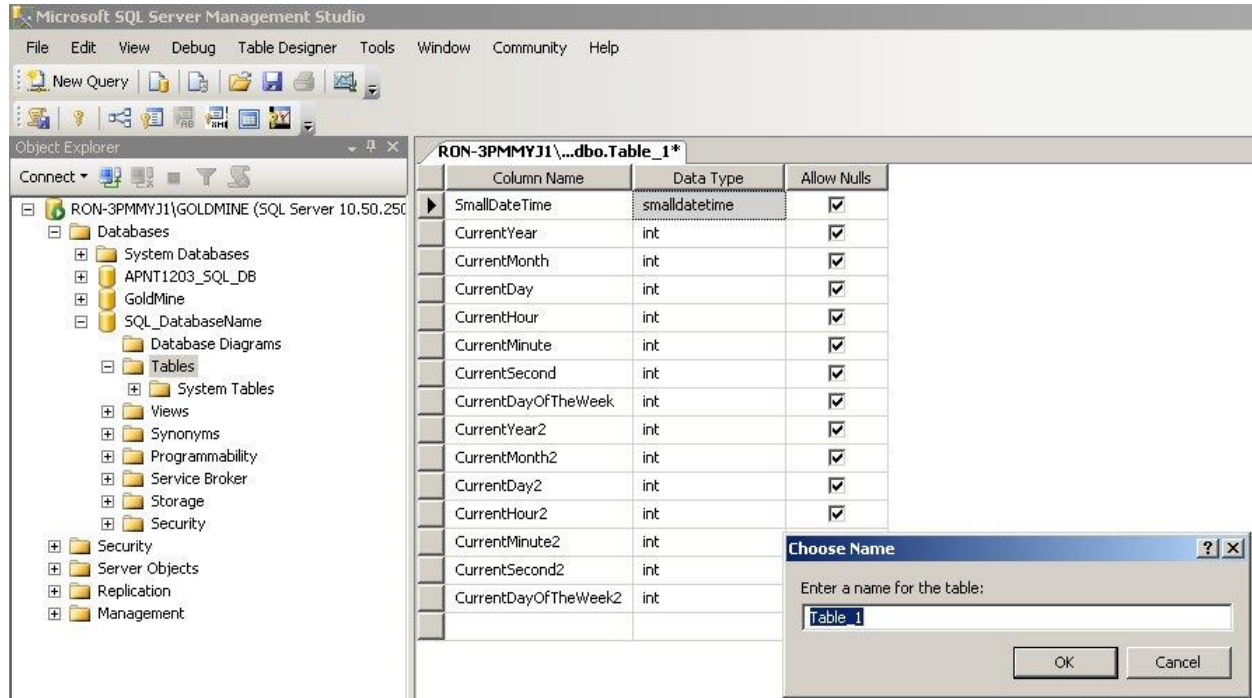
Table Designer

Collation	<database default>
Computed Column Specification	
Condensed Data Type	smalldatetime
Description	
Deterministic	Yes
DTS-published	No
Full-text Specification	No
Has Non-SQL Server Subscriber	No
Identity Specification	No

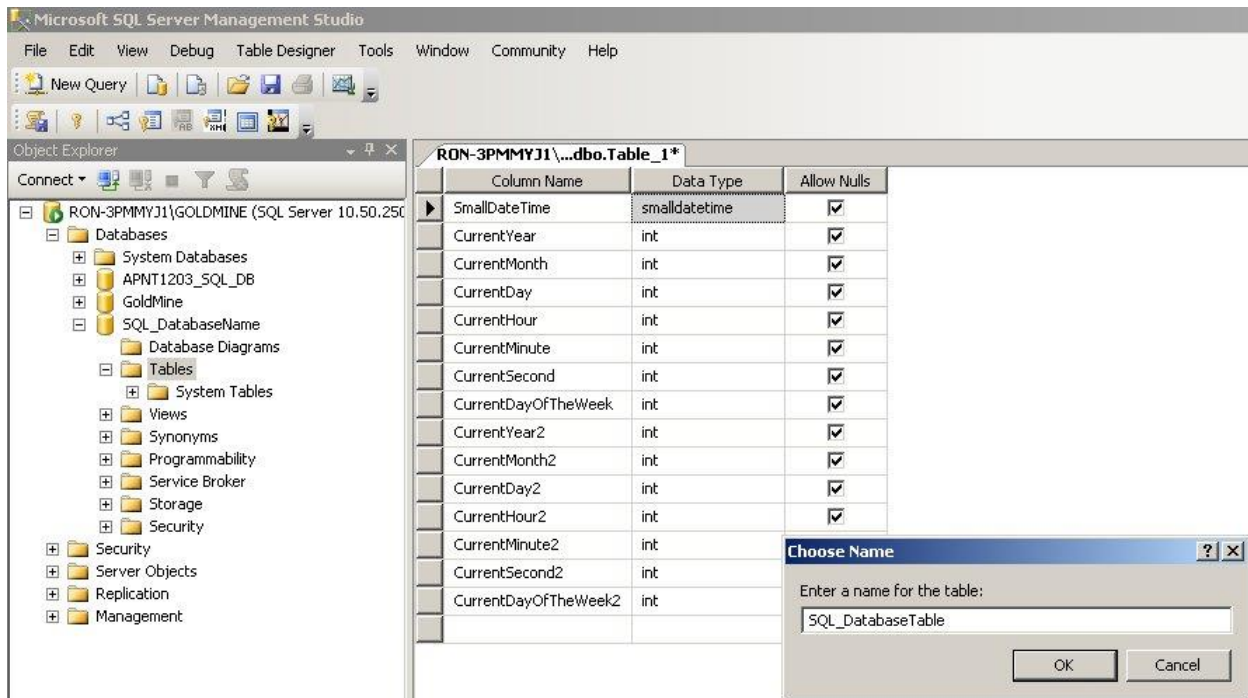
Default Value or Binding

18. Right-click at the top (tab above cell Column Name) & select Save Table_1. Don't be so quick to select OK.

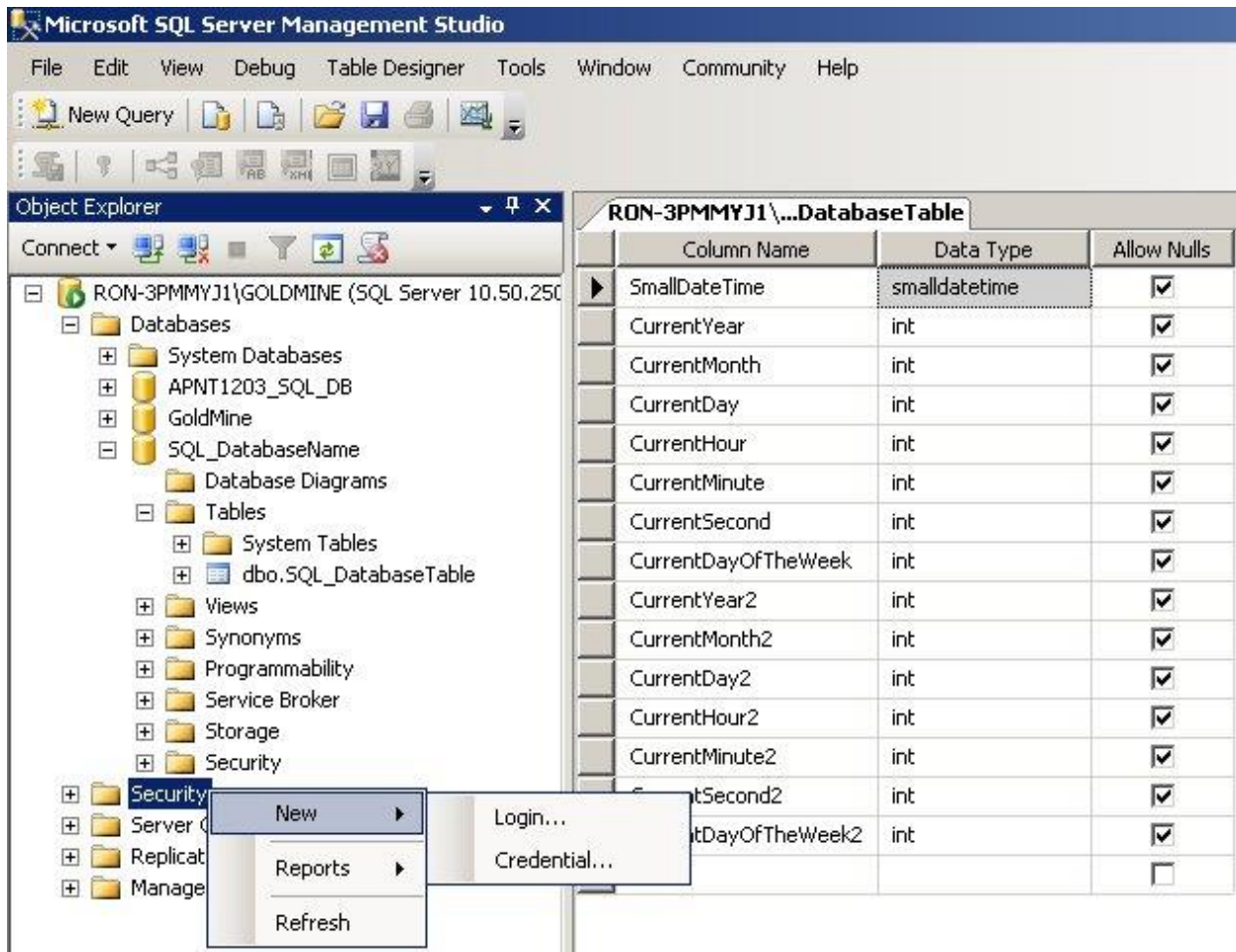




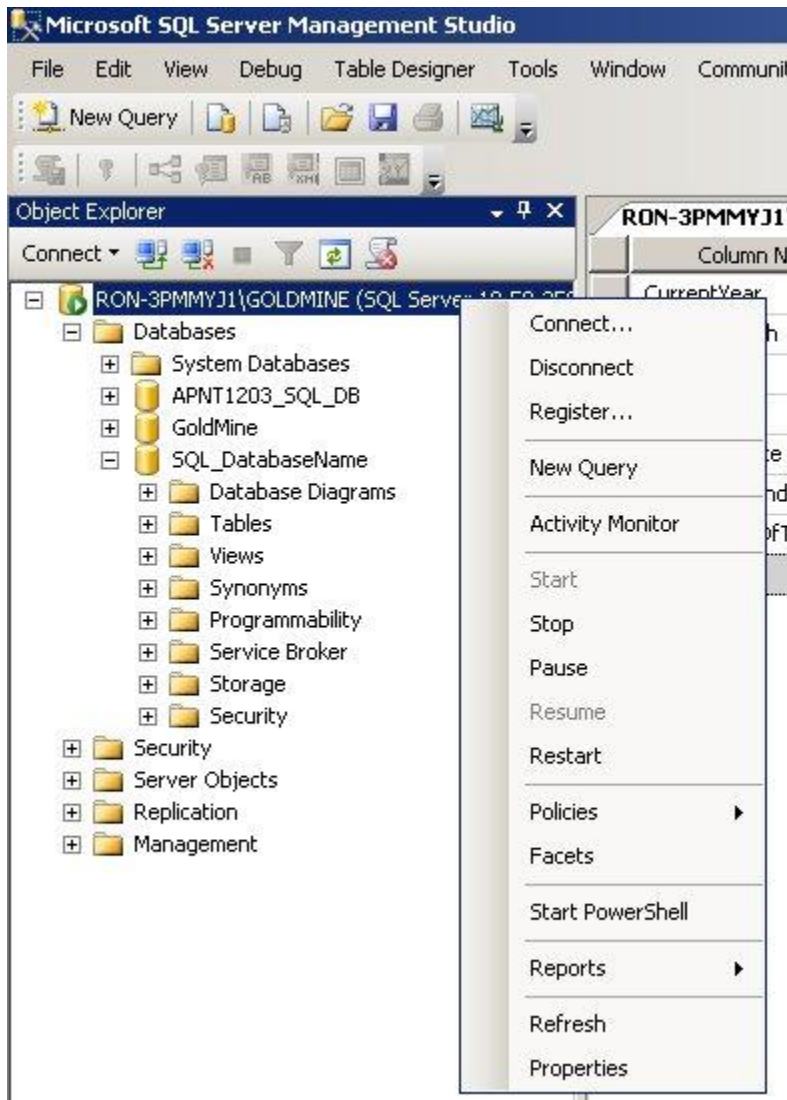
19. Change the name to SQL_DatabaseTable (from Step #8). Select OK.



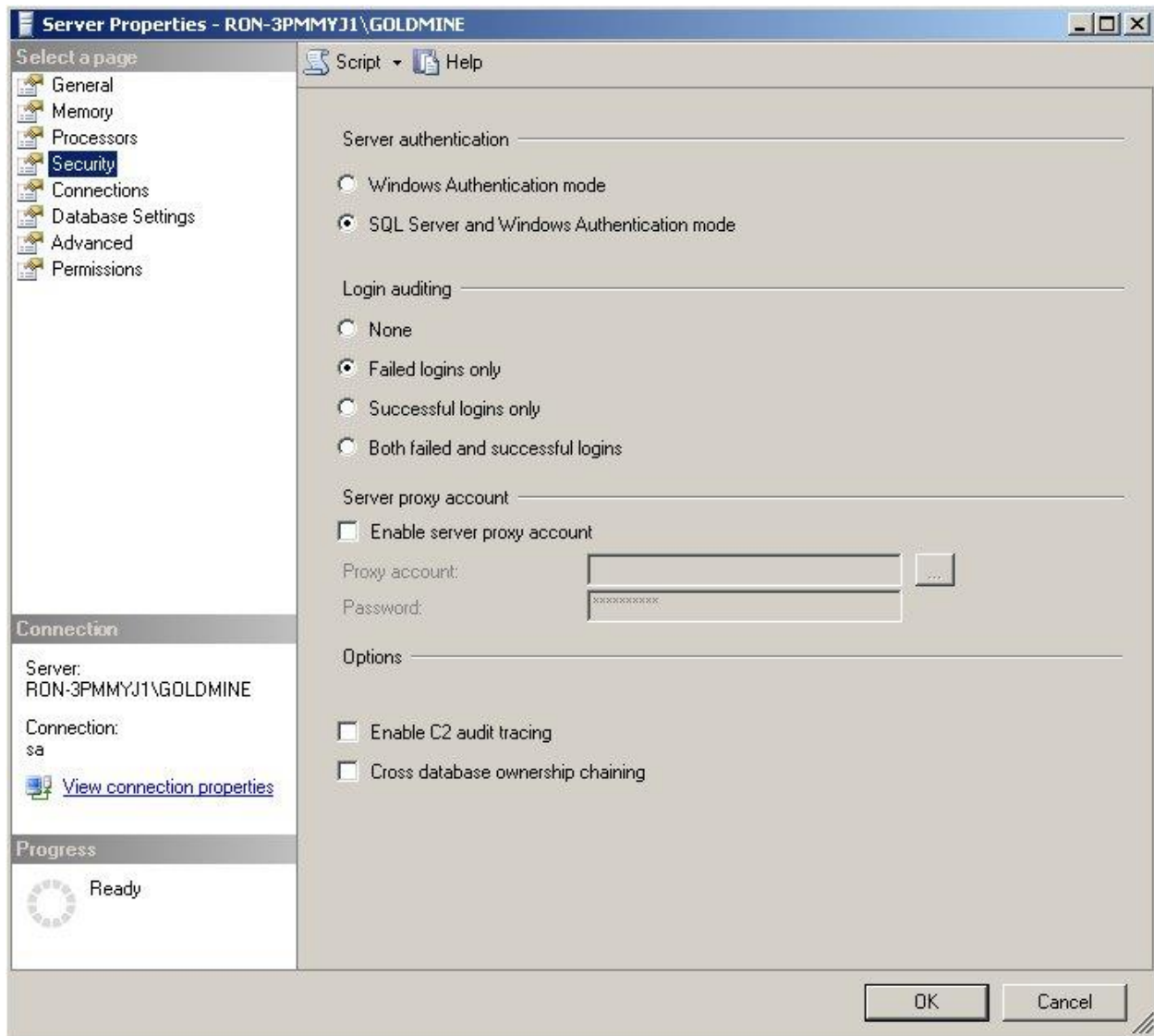
20. Right-click on Security. Select New, then Login...



21. Right-click on “RON-3PMMYJ1\GOLDMINE” (or whatever your SQL Server is called).
Select Properties.



22. Select Security. Make the changes shown. Select OK.



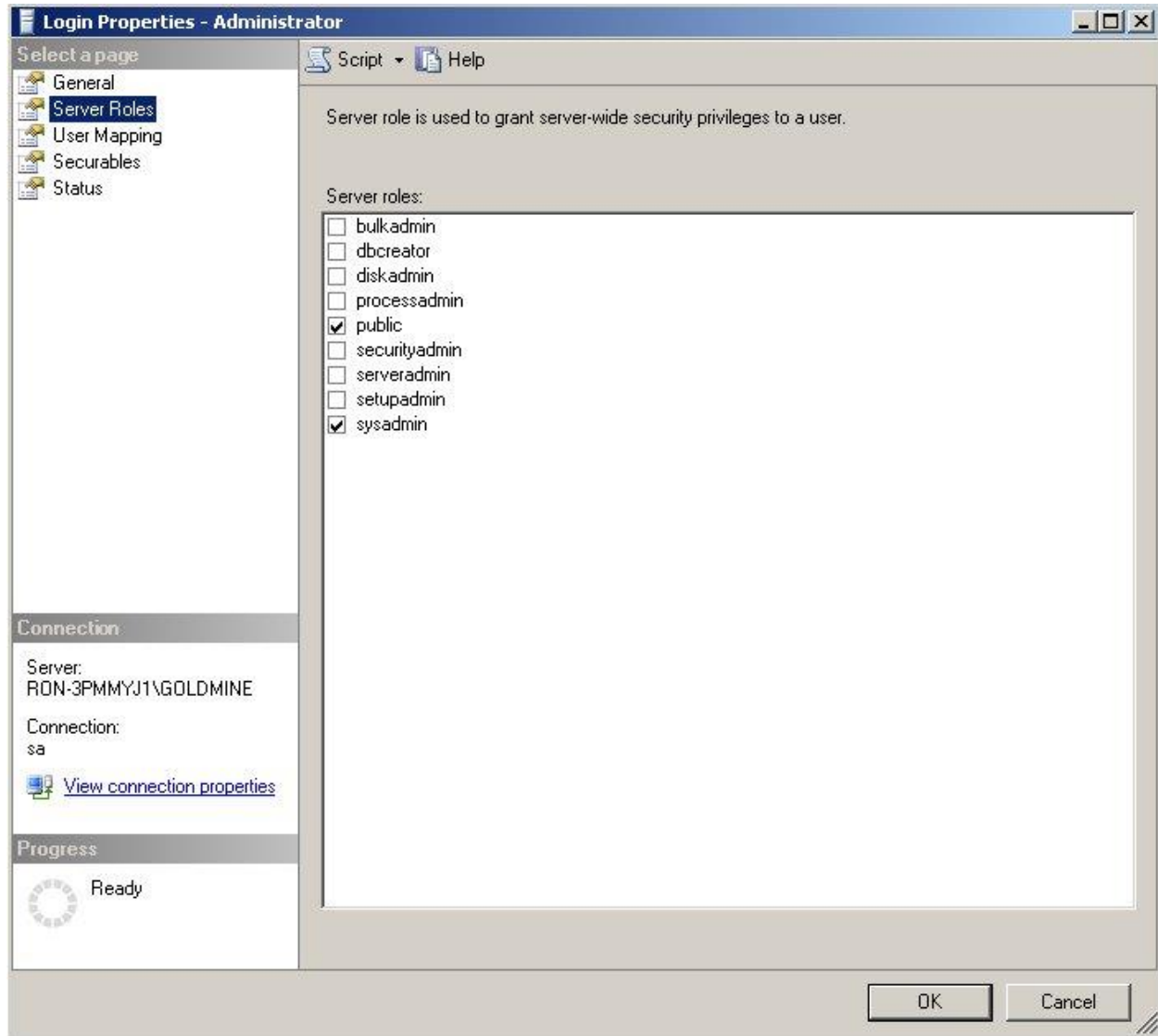
23. Make the following changes for the new login name. Password being used is “password” without the “ ” quotes. There are four total pictures. Select OK.

The screenshot shows the 'Login Properties - Administrator' dialog box. The 'General' tab is active. The 'Login name' field contains 'Administrator'. The 'Authentication' section has 'SQL Server authentication' selected. The 'Password' and 'Confirm password' fields are both filled with 'password'. The 'Specify old password' checkbox is unchecked. The 'Enforce password policy' checkbox is checked. The 'Mapped to certificate', 'Mapped to asymmetric key', and 'Map to Credential' options are all unchecked. The 'Mapped Credentials' table is empty. The 'Default database' is set to 'SQL_DatabaseName' and the 'Default language' is set to 'English'. The 'Connection' section shows the server 'RON-3PMMYJ1\GOLDMINE' and the connection 'sa'. The 'Progress' section shows a 'Ready' status. The 'OK' and 'Cancel' buttons are at the bottom right.

Lakewood Automation

27911 Clemens Road

Westlake, Ohio 44145



www.lakewoodautomation.com
(440) 808-4820 440.899.0493

Lakewood Automation

27911 Clemens Road

Westlake, Ohio 44145

Login Properties - Administrator

Select a page: General, Server Roles, **User Mapping**, Securables, Status

Script Help

Users mapped to this login:

Map	Database	User	Default Schema
<input checked="" type="checkbox"/>	APNT1203_SQL_DB	Administrator	dbo
<input type="checkbox"/>	GoldMine		
<input type="checkbox"/>	master		
<input type="checkbox"/>	model		
<input type="checkbox"/>	msdb		
<input checked="" type="checkbox"/>	SQL_DatabaseName	Administrator	dbo
<input type="checkbox"/>	tempdb		

☐ Guest account enabled for: SQL_DatabaseName

Database role membership for: SQL_DatabaseName

- ☐ db_accessadmin
- ☐ db_backupoperator
- ☒ db_datareader
- ☒ db_datawriter
- ☐ db_ddladmin
- ☐ db_denydatareader
- ☐ db_denydatawriter
- ☒ db_owner
- ☐ db_securityadmin
- ☒ public

Connection

Server: RON-3PMMYJ1\GOLDMINE

Connection: sa

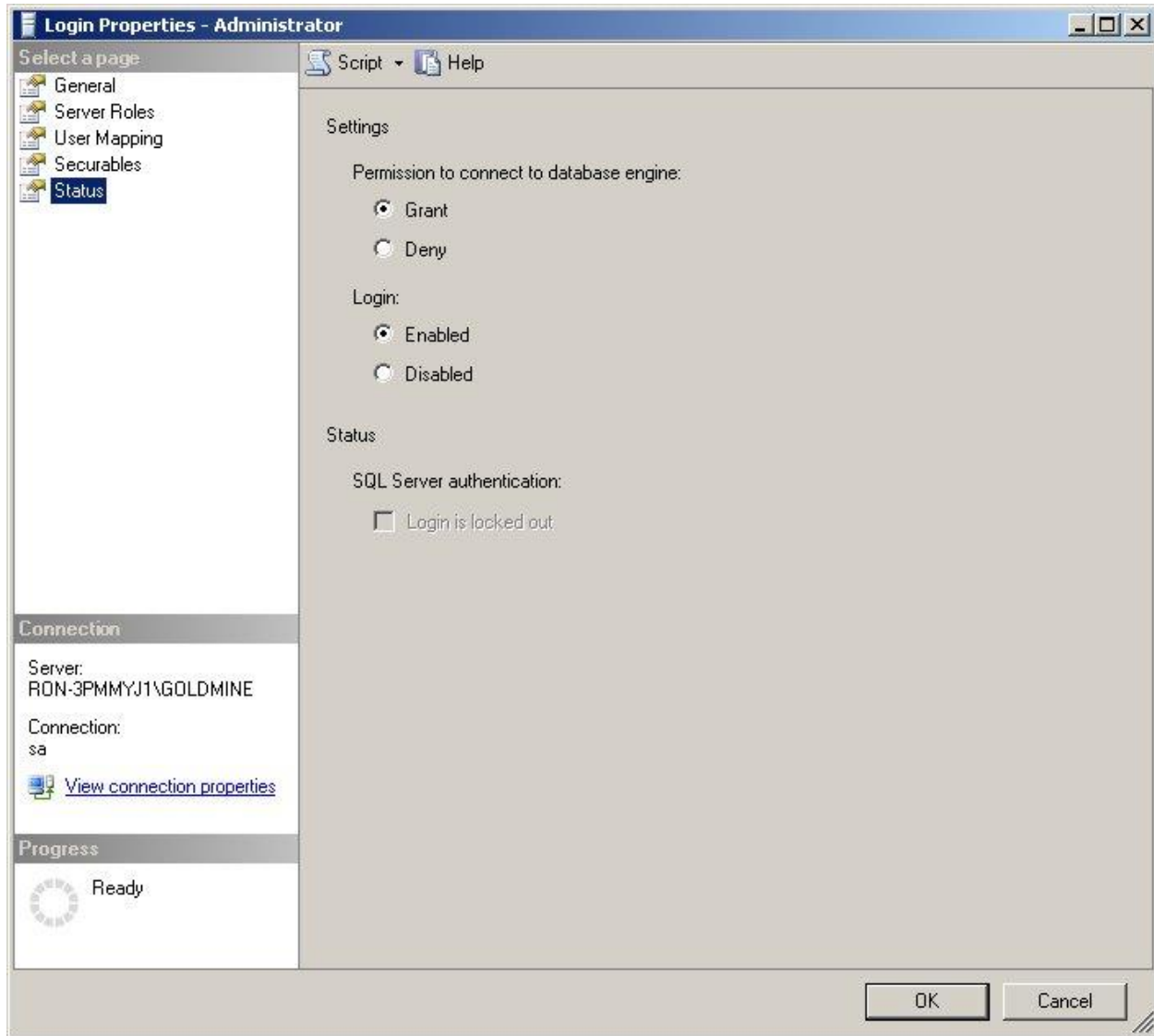
[View connection properties](#)

Progress

Ready

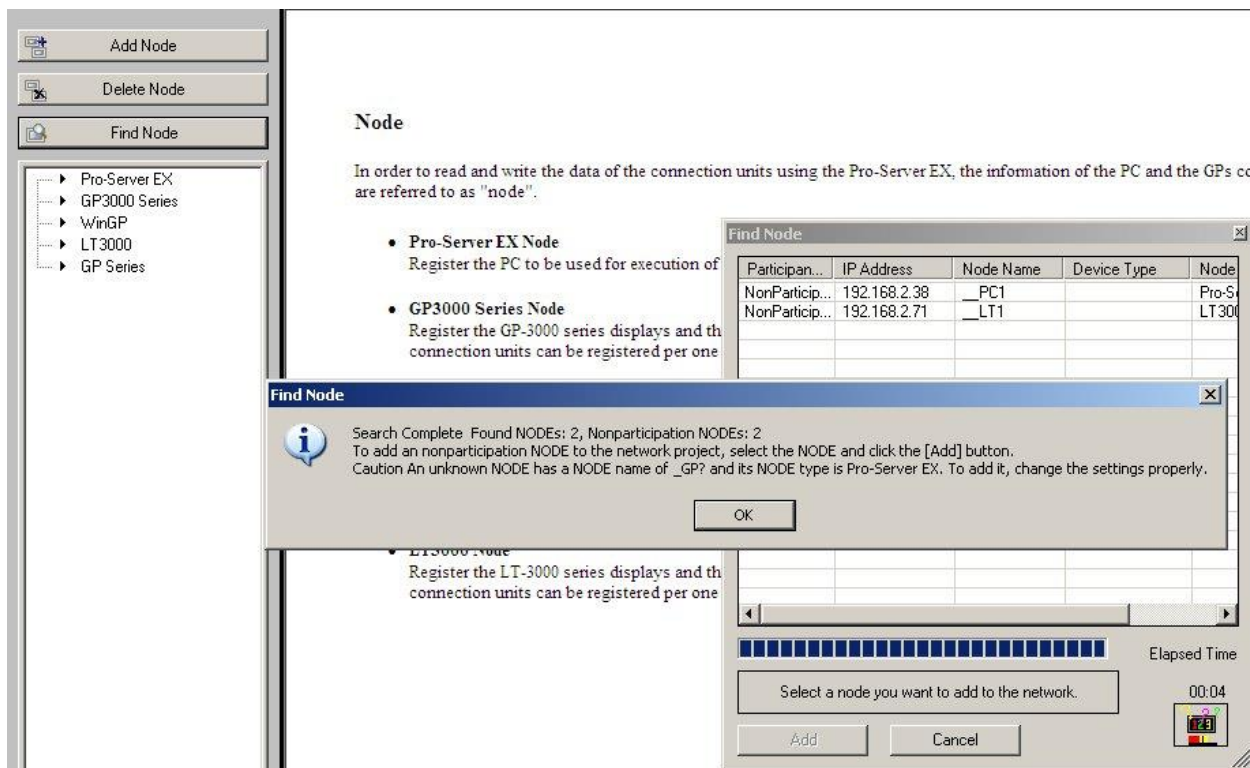
OK Cancel

www.lakewoodautomation.com
(440) 808-4820 440.899.0493



24. Design within Microsoft SQL Server 2008 R2 is done, but don't exit out of the software (it will be used later to see the data being populated).

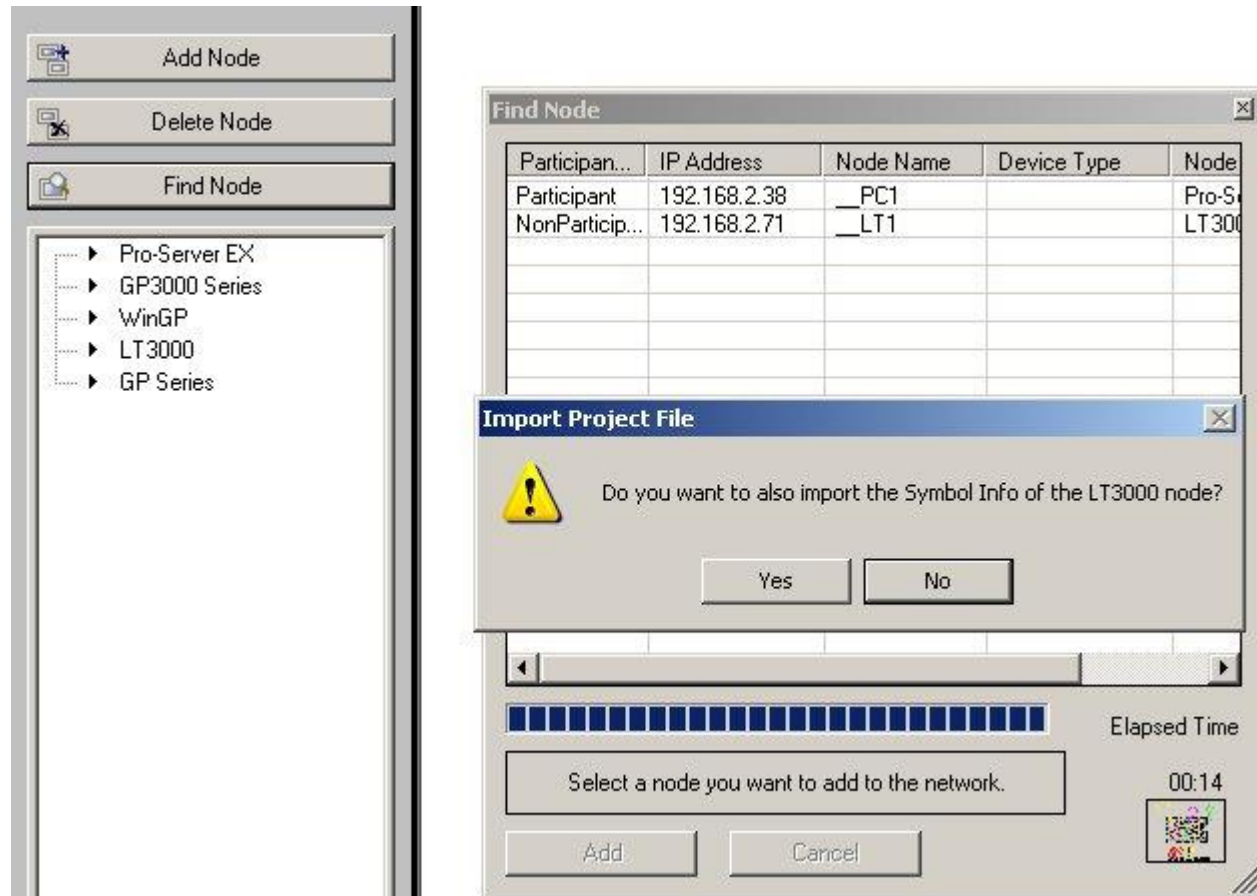
25. Open up Pro-Server EX Pro-Studio EX. Make the following changes in the Pro-Server EX software (create a new file). Select the Find Node button along the left side tree. Select OK from the first picture. In my example, it found the node of my personal computer of 192.168.2.38 & LT screen of 192.168.2.71. Highlight both items & select Add. A warning message will come up asking “Do you want to also import the Symbol info of the LT3000 Node?” – select Yes (this is the time savings portion of using the Symbol Table from the GP-Pro EX software). Select OK after the Symbols have been imported. You will now see the tree along the left side has both the computer & LT screen.



Lakewood Automation

27911 Clemens Road

Westlake, Ohio 44145



Westlake, Ohio 44145



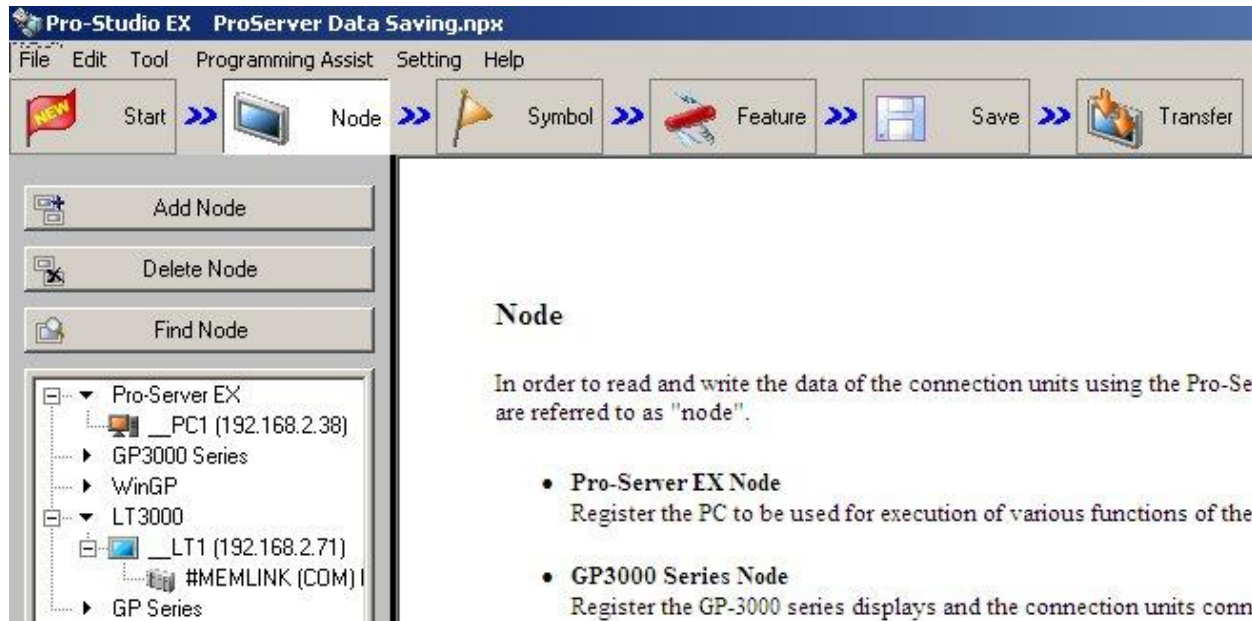
Westlake, Ohio 44145



Lakewood Automation

27911 Clemens Road

Westlake, Ohio 44145



Pro-Studio EX ProServer Data Saving.npx

File Edit Tool Programming Assist Setting Help

Start >> Node >> Symbol >> Feature >> Save >> Transfer

Add Node
Delete Node
Find Node

- Pro-Server EX
 - __PC1 (192.168.2.38)
 - GP3000 Series
 - WinGP
 - LT3000
 - __LT1 (192.168.2.71)
 - #MEMLINK (COM) I
 - GP Series

Node

In order to read and write the data of the connection units using the Pro-Server are referred to as "node".

- **Pro-Server EX Node**
Register the PC to be used for execution of various functions of the
- **GP3000 Series Node**
Register the GP-3000 series displays and the connection units conn.

26. Make the following changes in the Pro-Server EX software. You will now see all symbols have been imported into the Pro-Server EX software.

Symbol

Group	Ungroup
Insert	Delete
Copy	Cut
Paste	

Symbol Sheet

Add	Delete
-----	--------

Check Duplication/List Used Addresses

Global Constant Setting Screen

Pro-Server EX

- PC1 (192.168.2.38)
 - #INTERNAL:Sheet1
- GP4000 Series
- GP3000 Series
- WinGP
- LT3000
 - LT1 (192.168.2.71)
 - #INTERNAL:Sheet2
 - #MEMLINK:Sheet3 No conn
 - #INTERNAL:LT1_WORD
 - #INTERNAL:LT1_BIT
- GP Series
- Global Symbol

Node Name
Device Name

Sheet Name

Symbol	Data Type	Consecutive	Device Address	No. of Data	Comment
CurrentDay	Unknown		USR00000	0	
CurrentDayOfTheWeek	Unknown		USR00001	0	
CurrentHour	Unknown		USR00002	0	
CurrentMinute	Unknown		USR00003	0	
CurrentMonth	Unknown		USR00004	0	
CurrentSecond	Unknown		USR00005	0	
CurrentYear	Unknown		USR00006	0	
				1	
				1	
				1	
				1	
				1	
				1	
				1	
				1	
				1	
				1	
				1	
				1	

Symbol

Group	Ungroup	
Insert	Delete	
Copy	Cut	Paste

Symbol Sheet

Add	Delete
-----	--------

Check Duplication/List Used Addresses

Global Constant Setting Screen

- ▼ Pro-Server EX
 - PC1 (192.168.2.38)
 - #INTERNAL:Sheet1
 - GP4000 Series
 - GP3000 Series
 - WinGP
- ▼ LT3000
 - LT1 (192.168.2.71)
 - #INTERNAL:Sheet2
 - #MEMLINK:Sheet3 No conr
 - #INTERNAL:LT1_WORD
 - #INTERNAL:LT1_BIT
 - GP Series
 - Global Symbol

Node Name
Device Name

Sheet Name

Symbol	Data Type	Consecutive	Device Address	No. of Data	Comment
SaveData	Bit		USR0010000	0	
				1	
				1	
				1	
				1	
				1	
				1	
				1	
				1	
				1	
				1	
				1	
				1	
				1	
				1	
				1	
				1	
				1	
				1	
				1	

Westlake, Ohio 44145

[illegible]

28. Make the following changes in the Pro-Server EX software. We will create the Trigger Condition for the item used within the Access file (please note the Node Name within each Trigger Condition – very critical). The Add button along the left side tree will be used for each action (click on the Trigger Condition first). The trigger name is changed from the default of Trigger1 to Cycle, CycleTrigger, and ScreenButton for the three triggers.

The screenshot shows the 'Trigger Condition' configuration window in the Pro-Server EX software. The window has a title bar with a close button. Inside, there are two input fields: 'Trigger Condition Name' with the value 'Cycle' and 'Node Name' with a dropdown menu showing 'PC1'. To the right of the 'Node Name' field is an 'Add Node' button with a plus icon. Further right is a 'Find Node' button with a magnifying glass icon. Below these fields is a section titled 'Trigger Condition' with a dropdown menu showing 'In a Cycle of 300000ms'. Below this is a section titled 'Condition 1' with a tabbed interface. The main area is titled 'Specify the Trigger Condition.' and contains a grid of 12 buttons with icons and text: 'When Turned ON', 'While Device is ON', 'While Condition Satisfied', 'Specified Time', 'While Device is OFF', 'When Condition Satisfied', 'Constant Cycle', 'When Device ON', 'When Partner Node ON', 'When Device Changes', 'When Device OFF', and 'When Partner Node OFF'. Below the grid is a 'Cycle' label followed by a numeric input field set to '300000' and a 'ms' unit label. At the bottom left, there is a checkbox labeled 'Limited Time Offer' followed by four spinners for 'hour' and 'min' units. At the bottom right, there are three buttons: 'Detail Settings', 'OK', and 'Cancel'.

Trigger Condition Name

Node Name

Trigger Condition

When LS09900 of Node PC1 is Turned ON

Condition 1

Specify the Trigger Condition.

When Turned ON	While Device is ON	While Condition Satisfied
Specified Time	While Device is OFF	When Condition Satisfied
Constant Cycle	When Device ON	When Partner Node ON
When Device Changes	When Device OFF	When Partner Node OFF

Device Name ☒ Turn OFF the Specified Device Address after Processing.

Device Address

Data Type

☐ Limited Time Offer

hour min - hour min

Check Cycle ☐ Always

ms

Trigger Condition Name  Find Node











Node Name  Add Node

Trigger Condition

When SaveData of Node LT1 is Turned ON

Condition 1

Specify the Trigger Condition.

 When Turned ON	 While Device is ON	 While Condition Satisfied
 Specified Time	 While Device is OFF	 When Condition Satisfied
 Constant Cycle	 When Device ON	 When Partner Node ON
 When Device Changes	 When Device OFF	 When Partner Node OFF

Device Name ☒ Turn OFF the Specified Device Address after Processing.

Device Address 

Data Type

☐ Limited Time Offer hour min - hour min ☐ Check Cycle ☐ Always ms

29. We will now create the Data Transfer to “push” the memory from the LT screen to Pro-Server EX. This is required when the trigger is time based via a computer (such as constant cycle every x seconds or a specific time). The reason for this is Pro-Server must “push” the data & the trigger and data must be on the same device. Right-click on Device Transfer along the left side of the screen & select Add. Change the Data Transfer Name if desired. Press Next.

Select Data Transfer Type

Which type of data transfer do you want to do?

Data Transfer Name:

☐ Distribute Type

☒ Collection Type

About Data Transfer Type
The data transfer types are classified according to their contents as follows.

Data Transfer of Collection Type

Data is transferred from the specified station (Node A) to the station the start condition of which is satisfied (Node B).

Node A

Data

Start condition satisfied!


Node B

Next Cancel

30. Press Add Transfer Source.

Data Transfer (Collection Type)

Data Transfer Name:

Trigger Condition

Cycle:

Node:

Node.DeviceNa	Device	Data Type	Number	Node.DeviceNa	Device	Data Type
LT1.#INTERNA	USR00000	16Bit(Unsi	7	PC1.#INTERNA	LS0000	16Bit(Unsign

31. Make the changes shown. This copies the data from the screen into the memory of the computer. Press OK.

The screenshot shows a software interface for configuring data transfer. The main window is titled "Data Transfer (Collection Type)". It contains a "Data Transfer Name" field with the value "DataTransferCycle" and an "Add Transfer Source" button. To the right is a "Trigger Condition" section with a "New Trigger Condition" button and a dropdown menu currently set to "Cycle", with an "Edit" button next to it. Overlaid on this is a smaller dialog box titled "Edit Transfer Data". This sub-dialog has two main sections: "Transfer Source" and "Transfer Destination".

Transfer Source		Transfer Destination	
Node	LT1	Node	PC1
Device Name	#INTERNAL	Device Name	#INTERNAL
Device Address	USR00000	Device Address	LS0000
Data Type	16Bit(Unsigned)	Data Type	16Bit(Unsigned)
No.	7		

At the bottom of the "Edit Transfer Data" dialog are "OK" and "Cancel" buttons. At the bottom of the main "Data Transfer" window are "Complete" and "Cancel" buttons.

32. Press Set Receive Notification. Make the changes shown. This will create the trigger bit used within the CycleTrigger trigger. Press OK.

Data Transfer (Collection Type)

Data Transfer Name: DataTransferCycle

Trigger Condition: New Trigger Condition

Bit device notifying completion of a copy at the copy destination
(When completed, it turns ON).

Receive Notification Destination			
Device Address that received the data	Device Name	Device Address	Data Type
[PC1.#INTERNAL]LS0000	#INTERNAL	LS09900	Bit

OK Cancel

Complete Cancel

33. Press Complete.

Data Transfer (Collection Type)

Data Transfer Name:

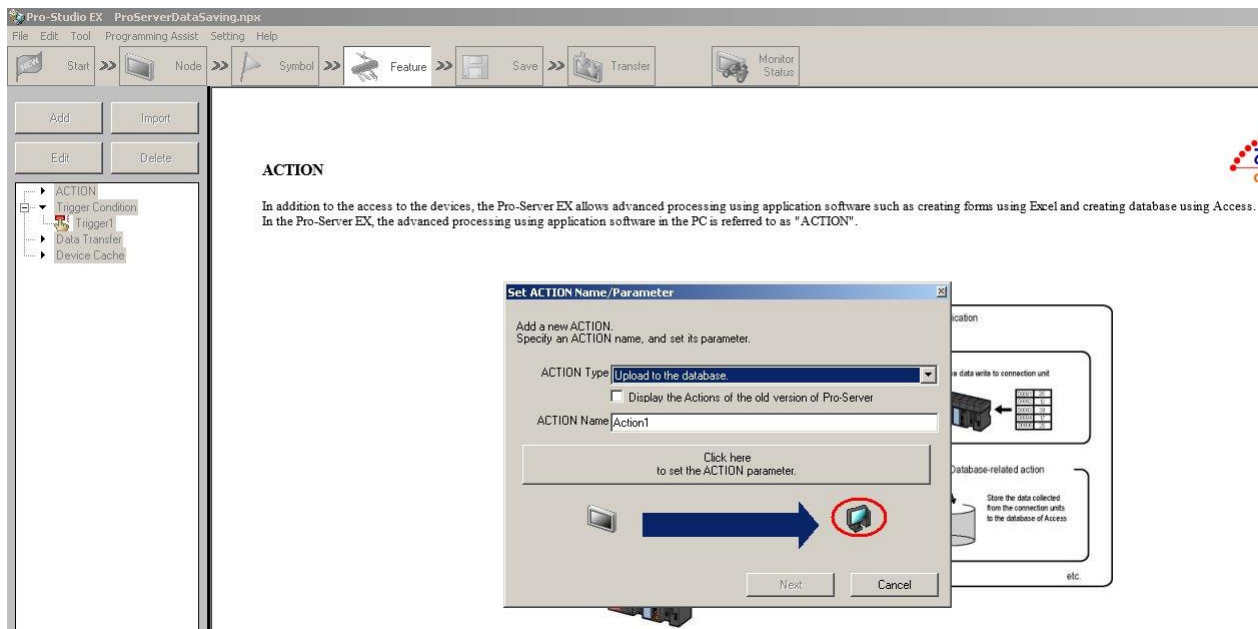
Trigger Condition

Cycle

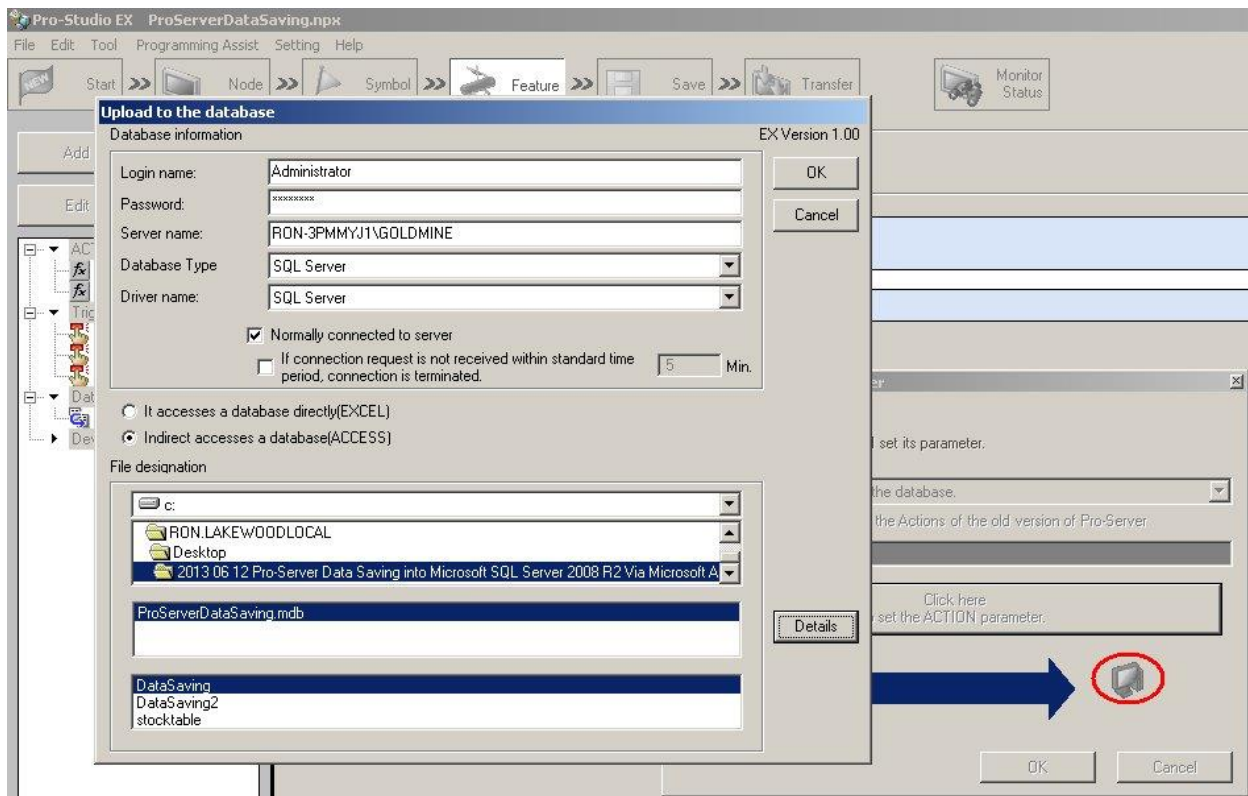
Node:

Node.DeviceNa	Device	Data Type	Number	Node.DeviceNa	Device	Data Type
LT1.#INTERNA	USR00000	16Bit(Unsi	7	PC1.#INTERNA	LS0000	16Bit(Unsign

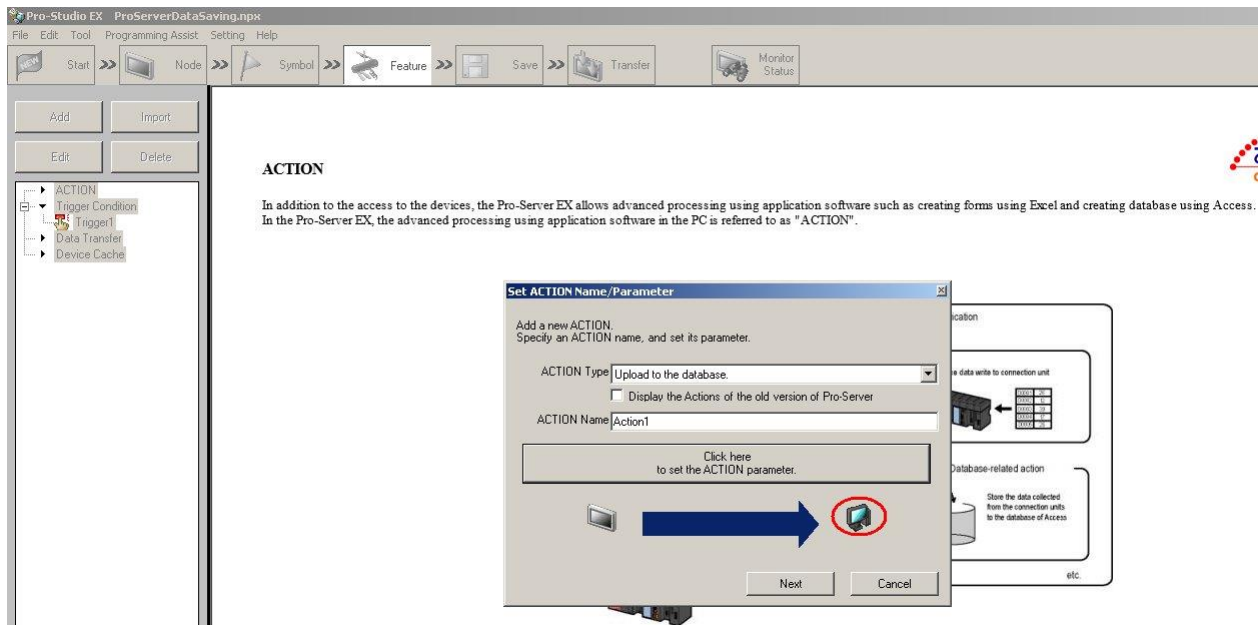
34. We will now create the action specified at the beginning of the document (saving via a button). The Add button along the left side tree will be used for each action (click on the ACTION first). The Access file created will be used as well. Along the left side tree, right-click on Action & select Add. In the ACTION Type, scroll down & select "Upload to the database."



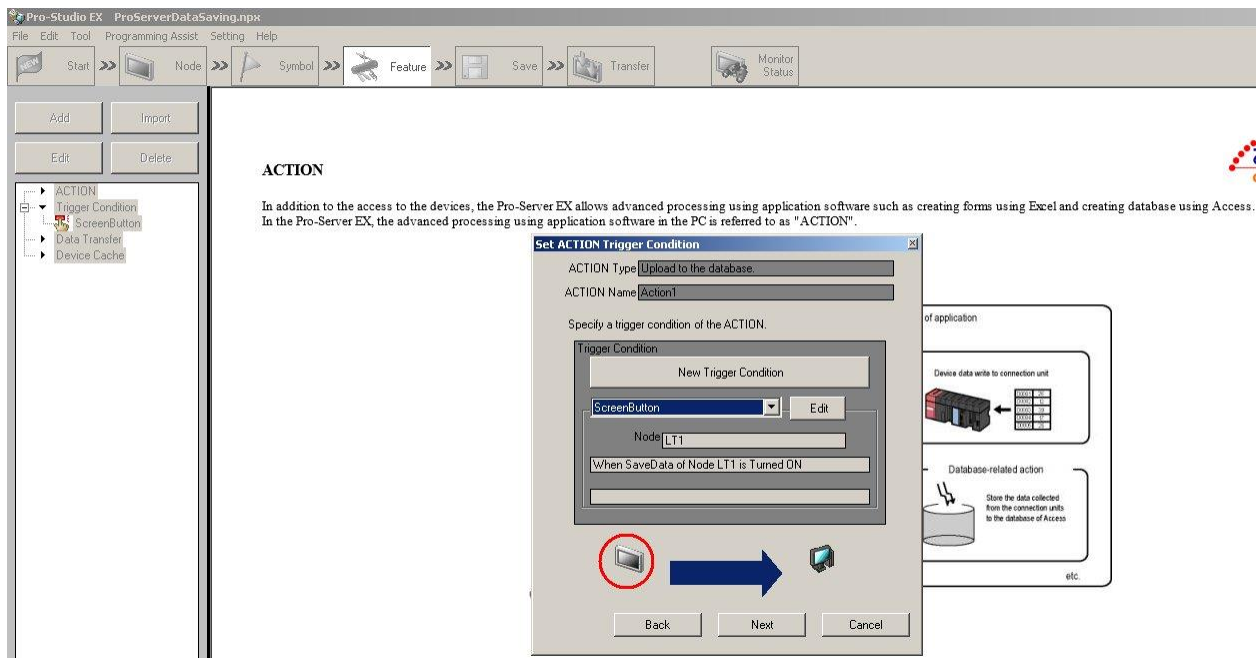
35. Select “Click here to set the ACTION parameter.” Fill in the information as shown. Please note, the Login name “Administrator”, Password “password”, and Server name “RON-3PMMYJ1\GOLDMINE” comes from the setup of the Microsoft SQL Server 2008 R2 when you login to SQL server (this information may be different per your computer). Select “Normally connected to server”, and “Indirect accesses a database(Access)”. Select the File designation as shown for the Access database file location (this information may be different per your computer). Make sure DataSaving is selected for the Table as shown. Press OK.



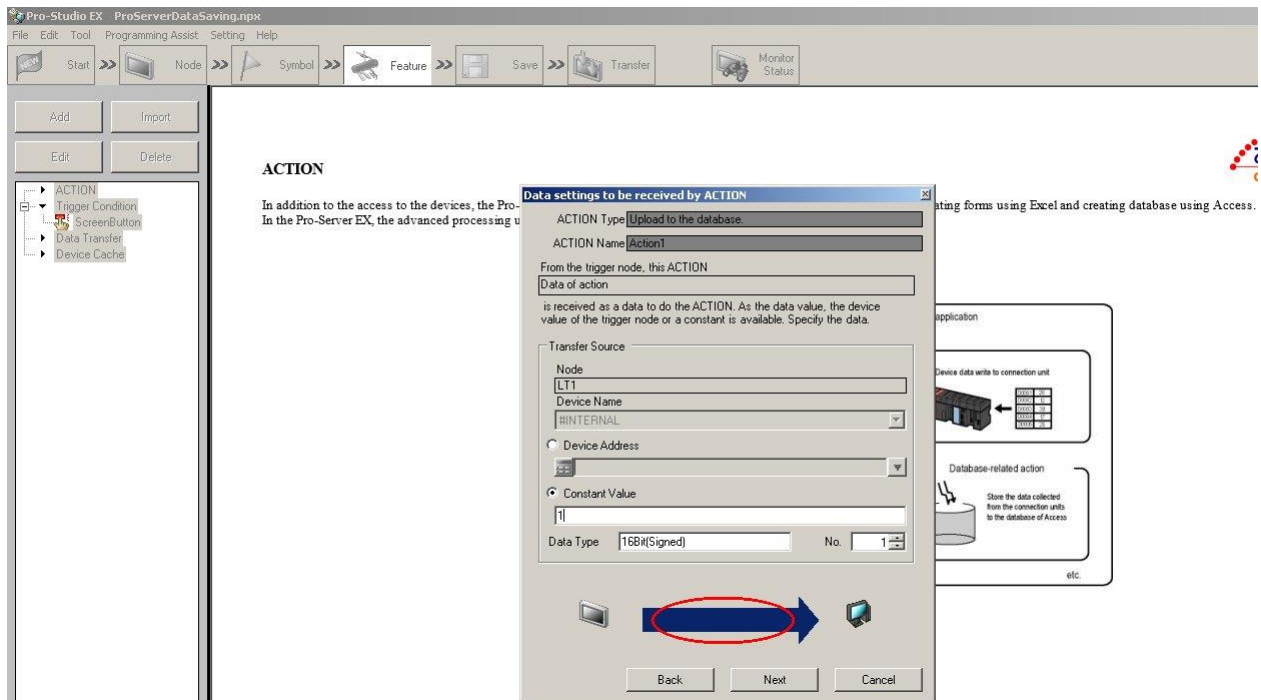
36. Press Next.



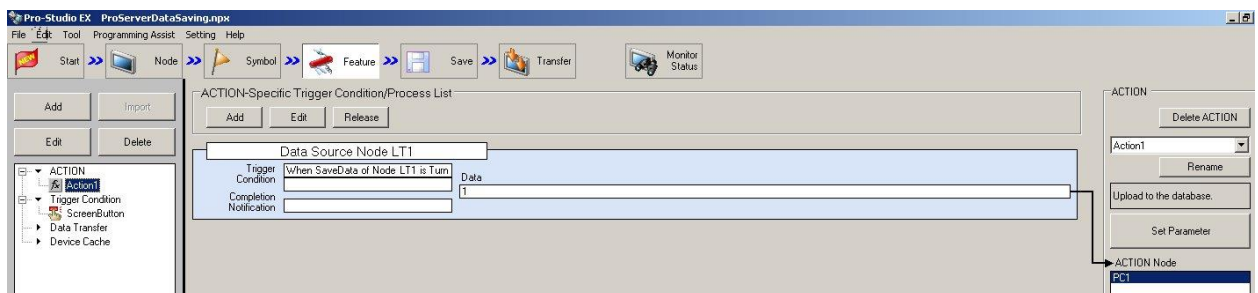
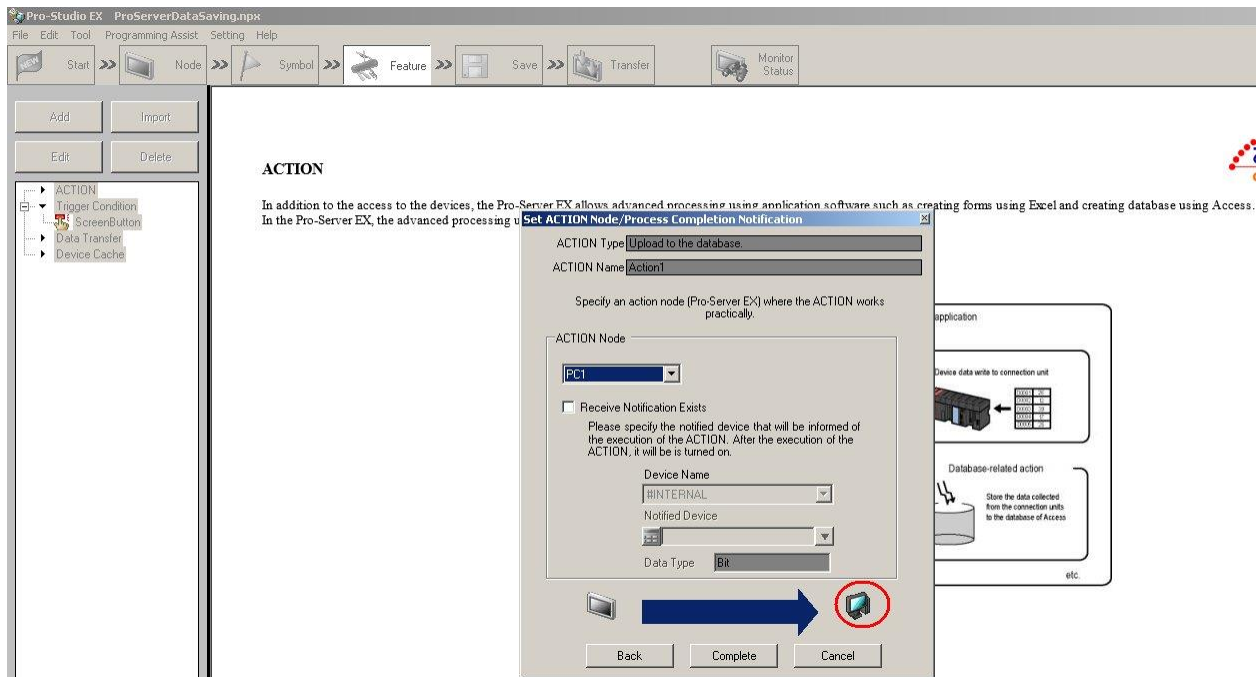
37. Select the trigger "ScreenButton" created. Select Next.



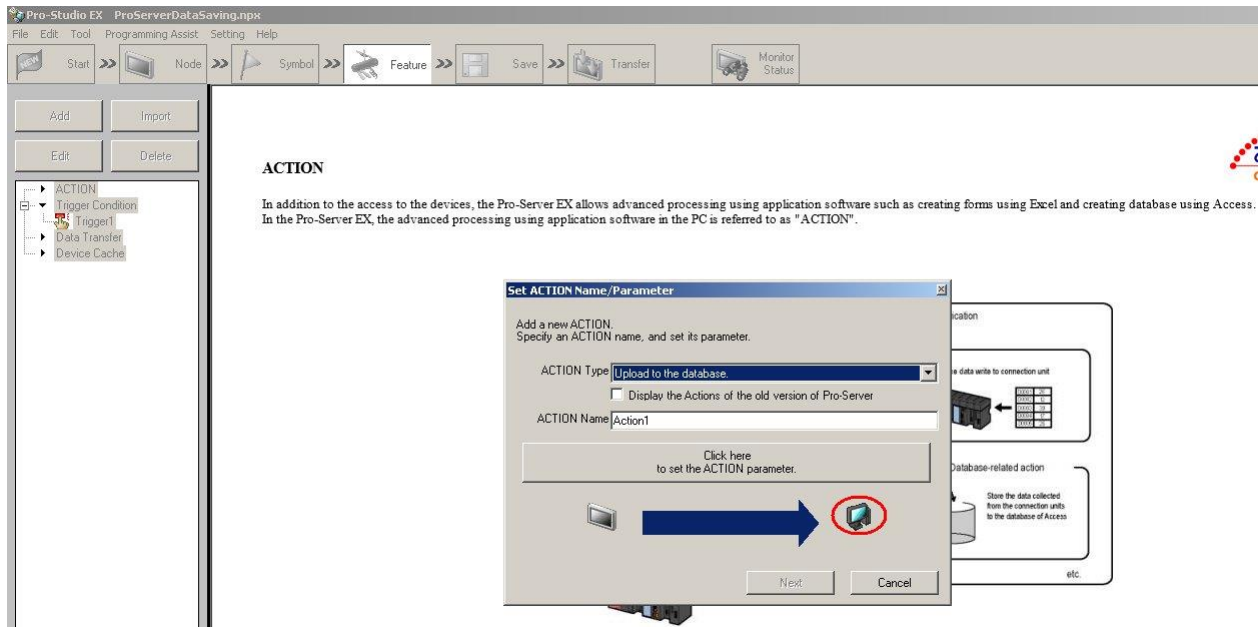
38. Select Constant Value. Input a value of 1. Select Next.



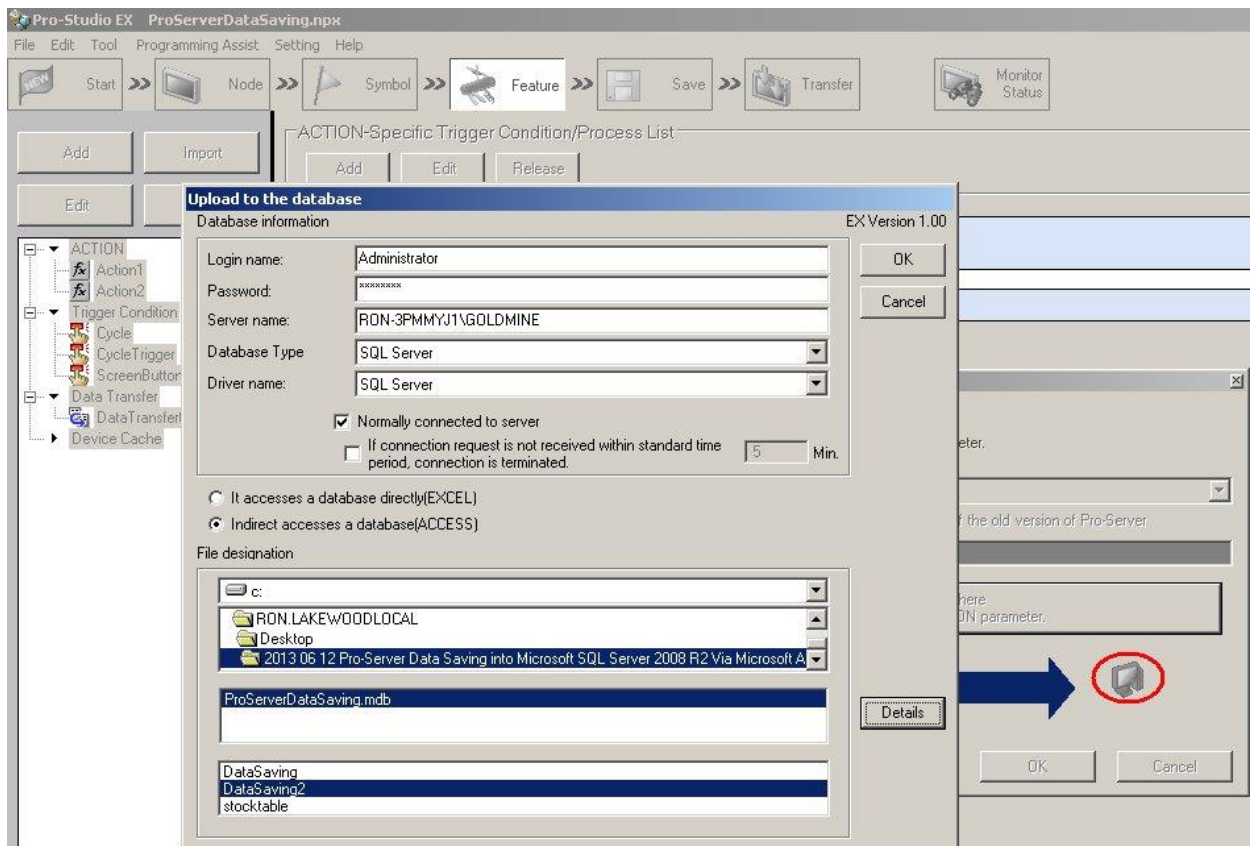
39. Select Complete.



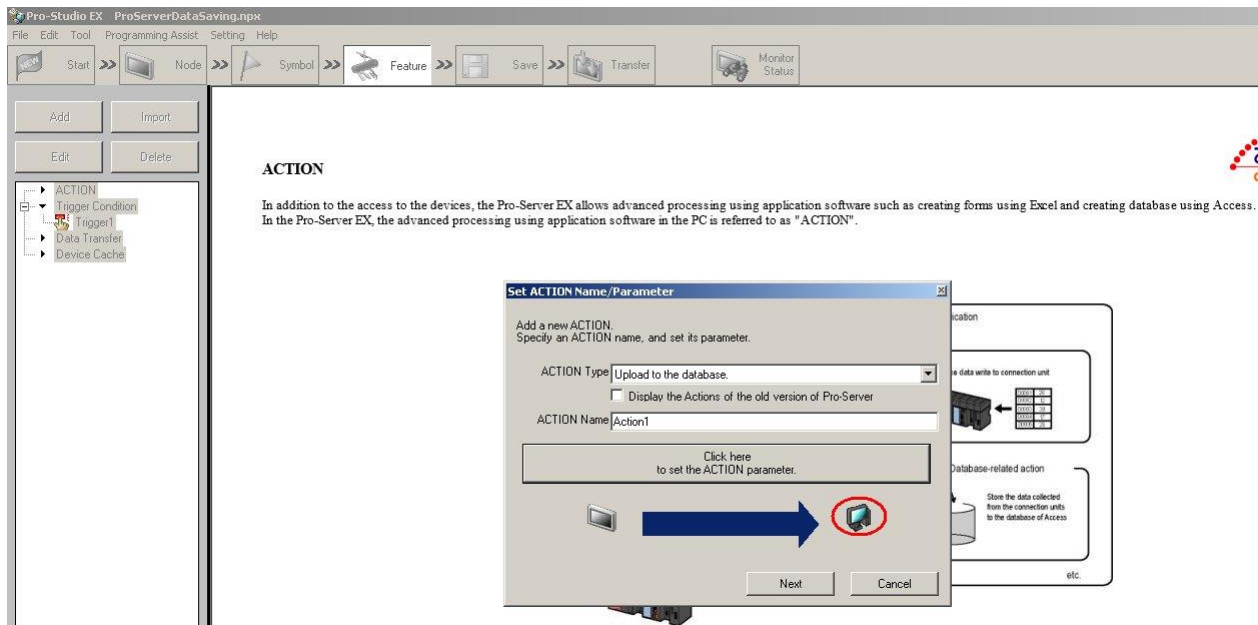
40. We will now create the action specified at the beginning of the document (timed constant cycle). The Add button along the left side tree will be used for each action (click on the ACTION first). The Access file created will be used as well. Along the left side tree, right-click on Action & select Add. In the ACTION Type, scroll down & select “Upload to the database.”



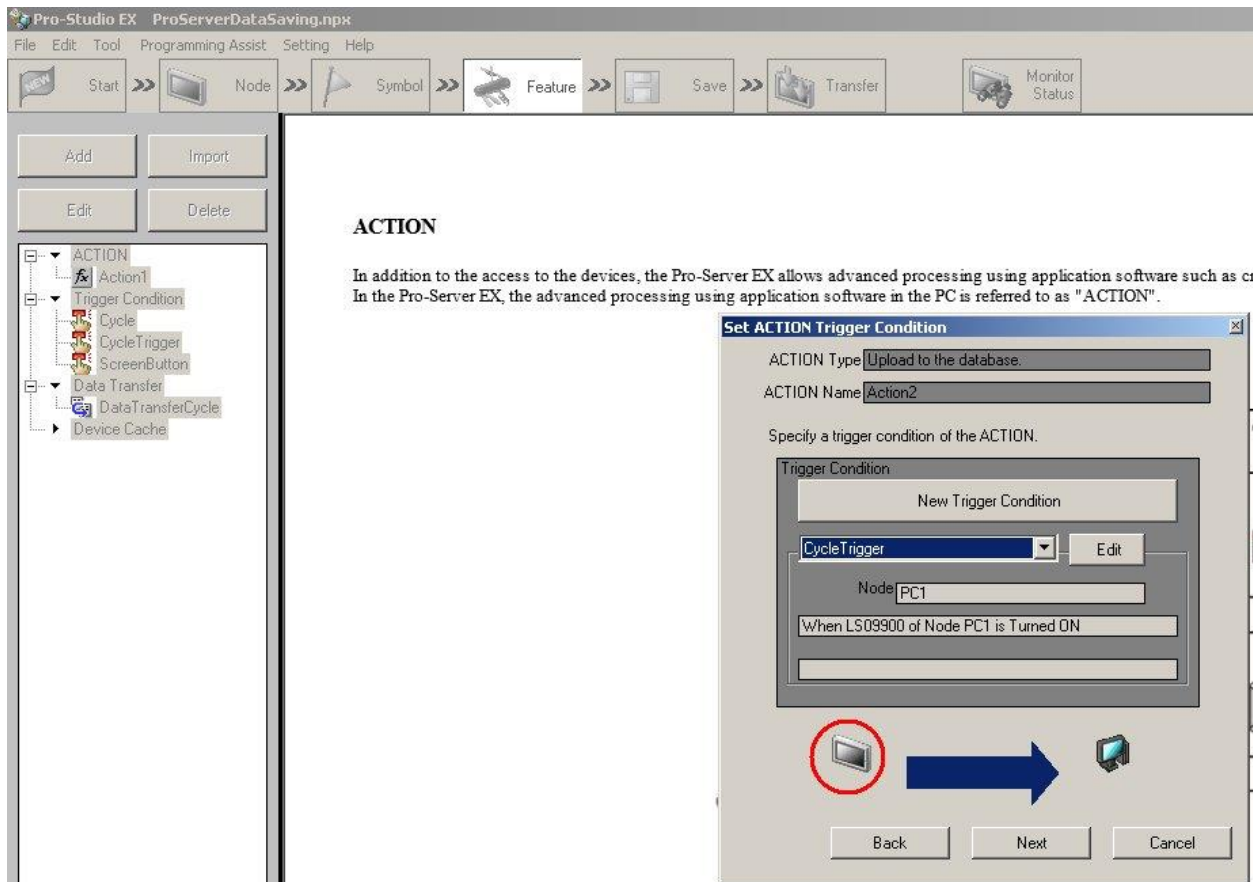
41. Select “Click here to set the ACTION parameter.” Fill in the information as shown. Please note, the Login name “Administrator”, Password “password”, and Server name “RON-3PMMYJ1\GOLDMINE” comes from the setup of the Microsoft SQL Server 2008 R2 when you login to SQL server (this information may be different per your computer). Select “Normally connected to server”, and “Indirect accesses a database(Access)”. Select the File designation as shown for the Access database file location (this information may be different per your computer). Make sure DataSaving2 is selected for the Table as shown. Press OK.



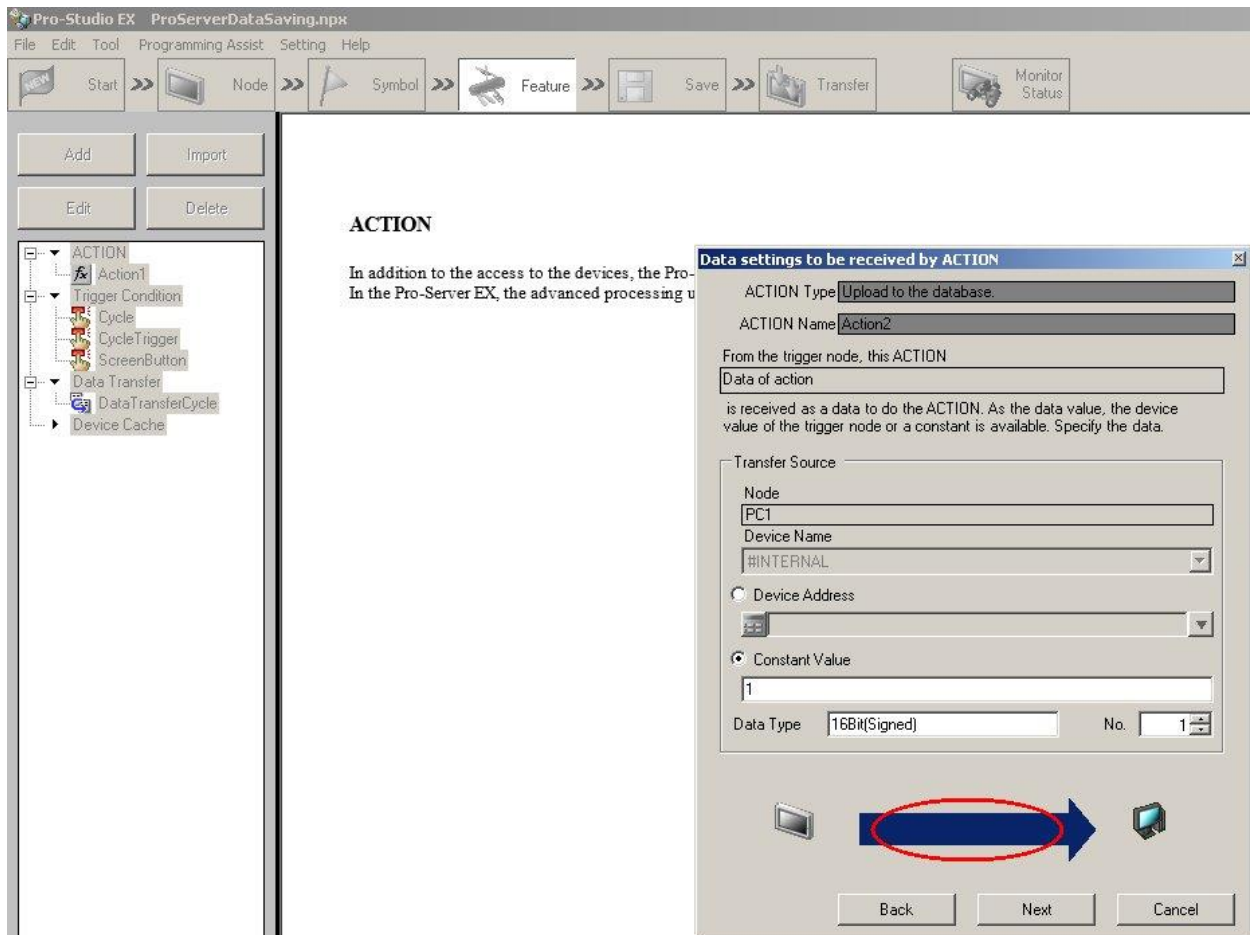
42. Select Next.



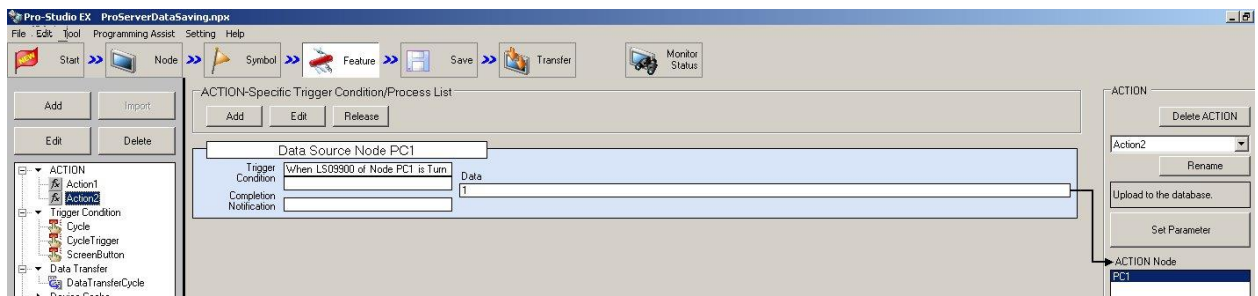
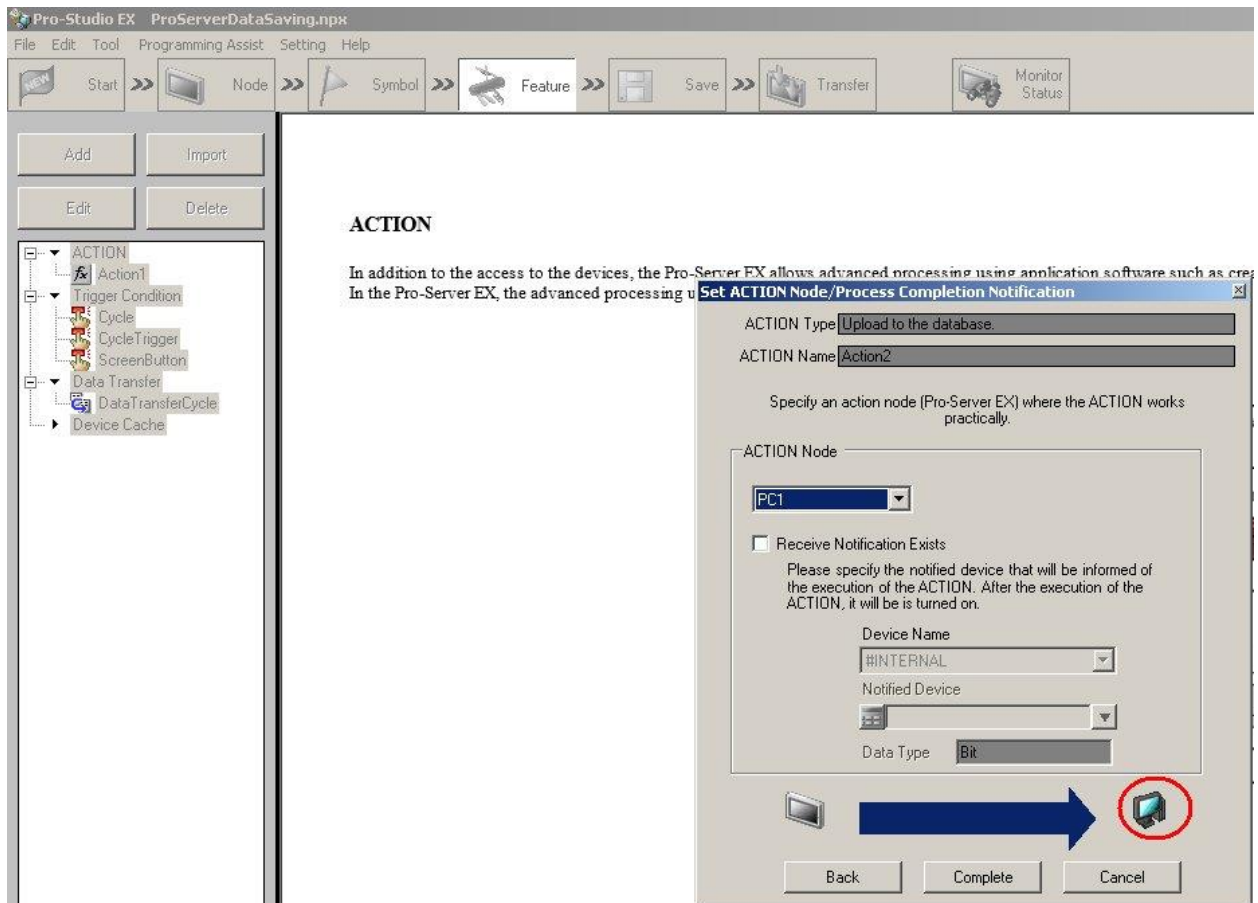
43. Select the trigger “CycleTrigger” created. Select Next.



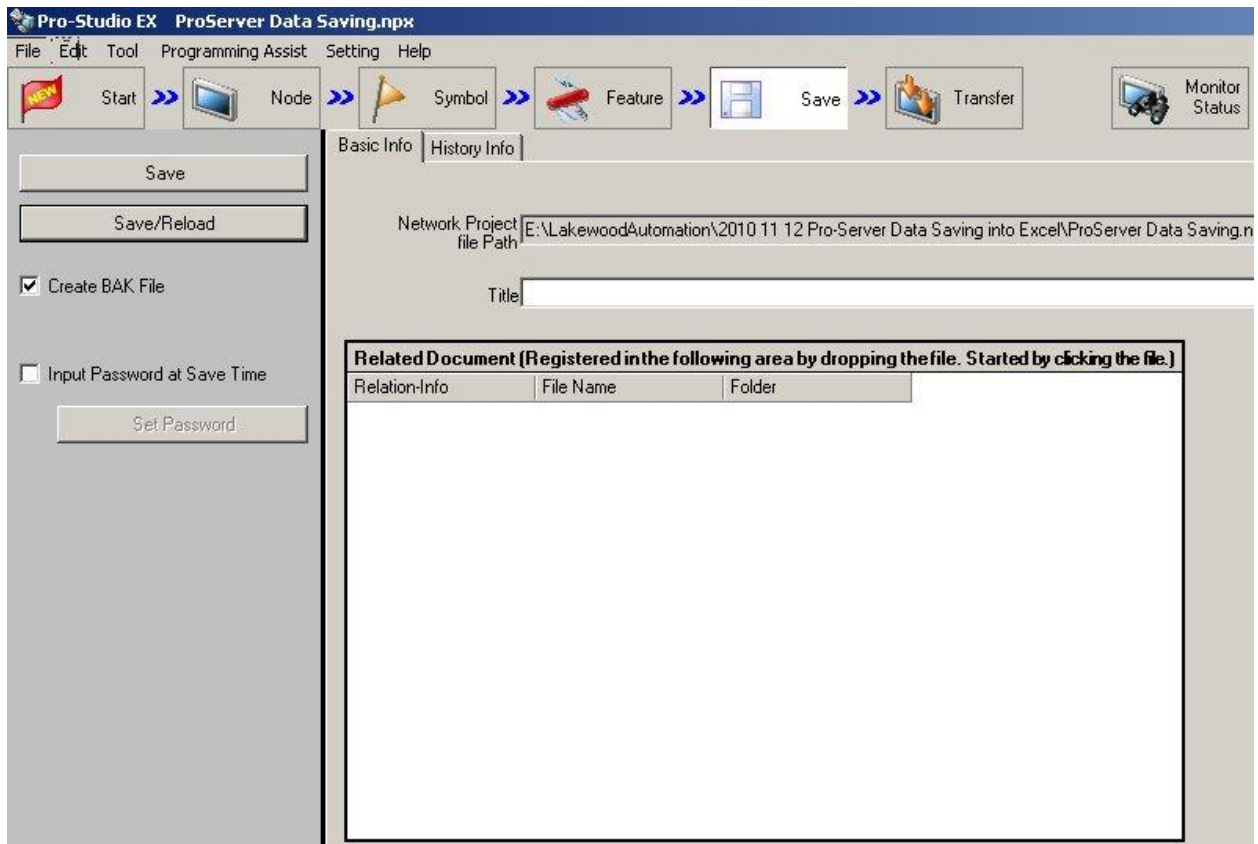
44. Select Constant Value. Input a value of 1. Select Next.



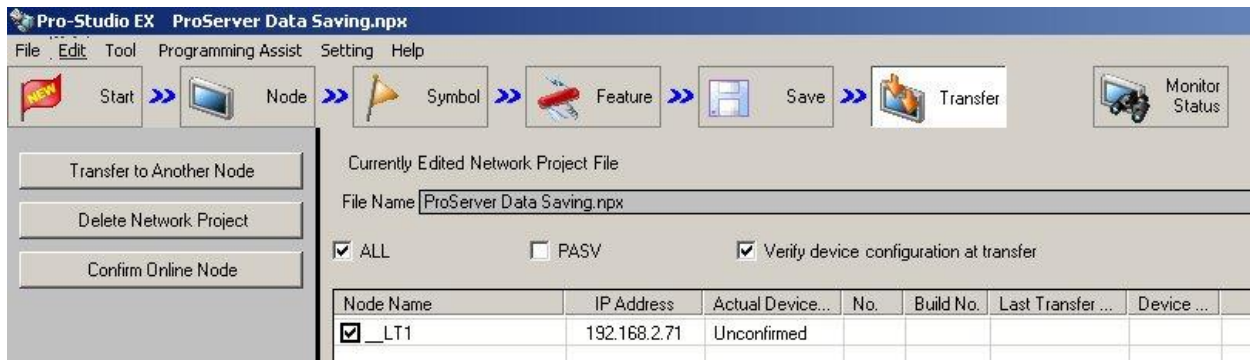
45. Select Complete.



46. Select Save/Reload the Pro-Server file. This will startup Pro-Server EX in the Task Bar near the computer clock.



47. Download the file. Select Transfer to Another Node. Select Yes in the confirmation pop-up window. Please note – if your data collection is being done via the current time OR cycling every x seconds, you don't have to download to the screen (you may skip this step).

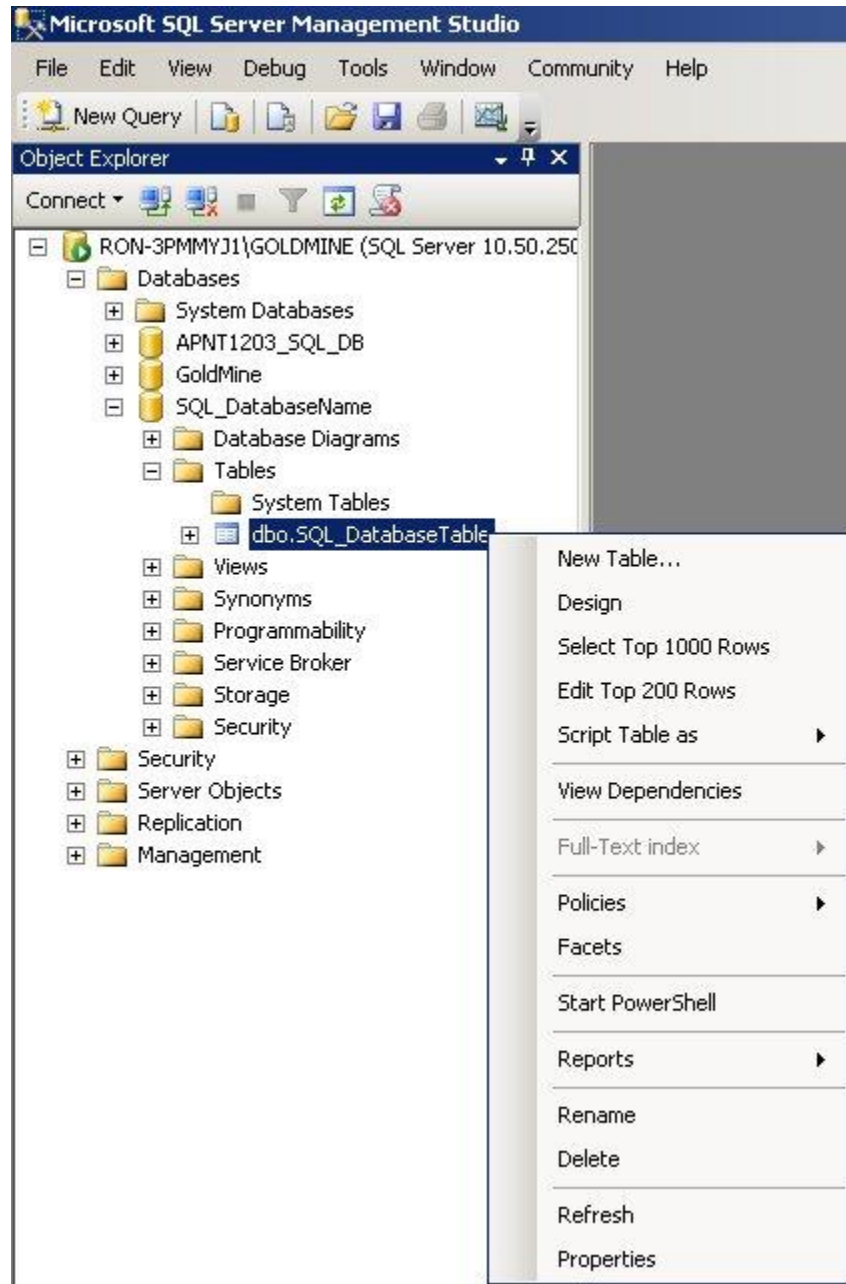


48. Try everything out. Press the button on the screen. Wait for five minutes. You will see data automatically logged into Microsoft SQL Server 2008 R2. You will need to right-click on the dbo.SQL_DatabaseTable & scroll to "Select top 1000 Rows" (newest data will appear at the bottom of the sheet). You will need to redo and "Select top 1000 Rows" each time the data is changed. Scroll left / right to see all data.

Lakewood Automation

27911 Clemens Road

Westlake, Ohio 44145



www.lakewoodautomation.com
(440) 808-4820 440.899.0493

Lakewood Automation

27911 Clemens Road

Westlake, Ohio 44145

Microsoft SQL Server Management Studio

File Edit View Query Debug Tools Window Community Help

Connect master

Object Explorer

- ROK-3PMYJ11\GOLDMINE (SQL Server 10.50.2500)
- Databases
 - System Databases
 - APNT1203_SQL_DB
 - GoldMine
 - SQL_DatabaseName
 - Database Diagrams
 - Tables
 - System Tables
 - dbo.SQL_DatabaseTable
 - Views
 - Synonyms
 - Programmability
 - Service Broker
 - Storage
 - Security
 - Security
 - Server Objects
 - Replication
 - Management

SQLQuery8.sql ...aster (sa (59))

```
***** Script for SelectTopNRows command from SSMS *****  
SELECT TOP 1000 [SmallDateTime]  
    , [CurrentYear]  
    , [CurrentMonth]  
    , [CurrentDay]  
    , [CurrentHour]  
    , [CurrentMinute]  
    , [CurrentSecond]  
    , [CurrentDayOfTheWeek]  
    , [CurrentYear2]  
    , [CurrentMonth2]  
    , [CurrentDay2]  
    , [CurrentHour2]  
    , [CurrentMinute2]  
    , [CurrentSecond2]  
    , [CurrentDayOfTheWeek2]  
FROM [SQL_DatabaseName].[dbo].[SQL_DatabaseTable]
```

Results Messages

	SmallDateTime	CurrentYear	CurrentMonth	CurrentDay	CurrentHour	CurrentMinute	CurrentSecond	CurrentDayOfTheWeek	CurrentYear2	CurrentMonth2
1	2013-06-20 08:47:00	NULL	NULL	NULL	NULL	NULL	NULL	NULL	13	6
2	2013-06-20 08:47:00	NULL	NULL	NULL	NULL	NULL	NULL	NULL	13	6
3	2013-06-20 08:47:00	NULL	NULL	NULL	NULL	NULL	NULL	NULL	13	6
4	2013-06-20 08:47:00	NULL	NULL	NULL	NULL	NULL	NULL	NULL	13	6
5	2013-06-20 08:47:00	NULL	NULL	NULL	NULL	NULL	NULL	NULL	13	6
6	2013-06-20 08:47:00	NULL	NULL	NULL	NULL	NULL	NULL	NULL	13	6
7	2013-06-20 08:47:00	NULL	NULL	NULL	NULL	NULL	NULL	NULL	13	6
8	2013-06-20 08:48:00	13	6	21	8	47	13	5	NULL	NULL

www.lakewoodautomation.com
(440)808-4820 440.899.0493