**NetworkThermostat Command Center Start-UP Guide**
April 4, 2008
Rev. 1c – Released

## 1. System Requirements
The following are the minimum PC system requirements for running the latest version of the NetworkThermostat Command Center Software.
   a. PC Compatible
   b. Windows XP / 2000
   c. 750 MHz
   d. 128 MB Ram
   e. CDROM or Internet Connection
   f. Serial Port, AT Modem, or Ethernet

## 2. Document Terms
Below are brief explanations of a few of the terms used in this document.  Read and understand this section before attempting to continue with the system startup.

   a. **PROJECT**
   The PROJECT refers to software setup that includes ALL of the NetworkThermostat Controllers, NetworkThermostat Thermostats, NetworkThermostat Relay Modules, AND the associated schedules.  The PROJECT is what will be created after installing the NetworkThermostat Command Center Software during this setup process.

   b. **CONTROLLER**
   The CONTROLLER refers to the NT-SSA*/CLK which is a protocol translator that allows your PC to communicate with the NetworkThermostat Thermostats and NetworkThermostat Relay Modules via the NetworkThermostat Command Center Software.
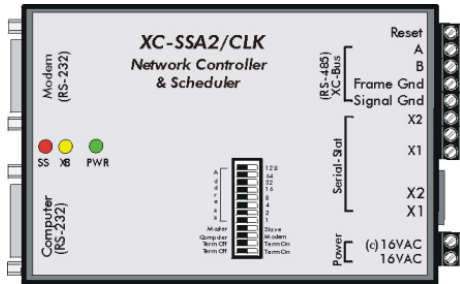


NT-SSA2/CLK Pictured

   c. **RELAY Module**
   The RELAY Module refers to the NT-REL which is a four (4) relay output board that interfaces to the RS-485 network port on the NT-SSA2/CLK.  These relays can be scheduled from the software much like the thermostats.
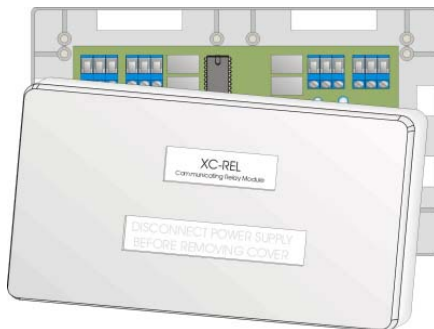


NT-REL

d. **TREE**
In the NetworkThermostat Command Center Software the TREE is the list of all devices in a hierarchical view on the left hand window of the software. It is very important to pay close attention to what device is highlighted in this tree when you are making changes in the MAIN WINDOW or adding schedules. Clicking on a device in the TREE should bring the current status view for that device into the MAIN WINDOW.



e. **MAIN WINDOW**
The MAIN WINDOW is where the NetworkThermostat Command Center Software displays the current status view or the schedule definition for the item highlighted (selected) in the TREE. The MAIN WINDOW is located directly to the right of the TREE.

f. **THERMOSTAT TABLE**



This table can be toggled on and off using the button shown above. It will continuously update with current values for each of the following data points from the THERMOSTATS in the project: *Name, Address, Online, Indoor Temp, Outdoor Temp, Mode, Fan, Day/Night, Cool Day, Heat Day, Active Stage, Last Update.*

g. **CONTROLLER TABLE**



This table can be toggled on and off using the button shown above. It will continuously update with

current values for each of the following data points from the CONTROLLERS in the project: *Name, Network Address, Connection, Last Query Time.*

h. **RELAY TABLE**

This table can be toggled on and off using the button shown above.  It will continuously update with current values for each of the following data points from the RELAYS in the project: *Name, Network Address, Relay#1 State, Relay#2 State, Relay#3 State, Relay#4 State, Last Update.*

i. **WIZARD**
A WIZARD is a series of step-by-step screens that will help during the setup process of each section of the software configuration.  (*Examples: Add Controller Wizard, Add Thermostat Wizard, Add Schedule Wizard, etc.*)

j. **RIGHT-CLICK**

This is when the button on the RIGHT hand side of the MOUSE is used to select an item rather than the LEFT hand button.  A LEFT-CLICK is assumed if RIGHT-CLICK is not specified.

## 3. NetworkThermostat Command Center Software Installation

In order to install the NetworkThermostat Command Center Software, either obtain a current version of the CD from NetworkThermostat Corporation or go to the NetworkThermostat Corp Website listed below and download the latest version.

    a. Insert NetworkThermostat Command Center Software CD

    b. Go to 'My Computer'


My Computer

    c. Select the CDROM Drive (Usually D:\)

    d. OR Go to http://www.xcicorp.com/ and Download the NEW Software.

    e. Double Click on the 'XccSetup.msi'


XccSetup.msi

    f. Go through SETUP WIZARD
Click next through each screen until it is finished UNLESS you are an advanced user and are comfortable making changes from the default settings.

    g. The NetworkThermostat Command Center Software is now installed and can be launched (run) by going to the **Start Menu**  then to **[All Programs]** → **[XCI]** → **XCI Command Center**


XCI Command Center

## 4. Create a Project

    a. Open the software
During the SETUP WIZARD an ICON for the software was created at the location below:
**[Start]** → **[All Programs]** → **[XCI]** → **XCI Command Center**


XCI Command Center

    b. Once you have followed the instructions below to ADD all the Controllers, Thermostats, Relays, Schedules, etc. for the entire project then go to **[File]** → **[Save]** in the top left corner of the NetworkThermostat Command Center Software

    c. The "Save As" Window will pop up. Type a name in this window that describes your project and click "Save."

## 1. Add a Controller



Adding a Controller to the project should ALWAYS be the first step after the NetworkThermostat Command Center Software is installed.

    a. Click on the "**+** Controller Button" (Pictured Above)

    b. Proceed through each step of the CONTROLLER WIZARD:

        i. **Controller Name**
On the first screen, type a descriptive name for the controller that will uniquely identify it from other controllers in this or other projects. Click NEXT.

        ii. **Controller Type**
On the next screen, select which type of controller you have. If you are not sure, look at the controller itself and it will have the model number printed on it.

            a. If your controller is an NT-SSA2/CLK, you must select Master or Slave.

            b. A Master Controller MUST be set up before a Slave Controller can be added to the project. Also, a Master Controller MUST be NETWORK ADDRESS 1 so the

CONTROLLER WIZARD will not allow you to select a different NETWORK ADDRESS.

c. A Slave Controller MUST have its NETWORK ADDRESS set correctly according to the DIP SWITCHES on the NT-SSA2/CLK Slave Controller. Also, the Master Controller that the Slave Controller is connected to via RS485 must be selected.

d. If your controller is an NT-SSA16/CLK or NT-SSA32/CLK then the NETWORK ADDRESS and Master/Slave screen will be skipped during the CONTROLLER WIZARD.

iii. **Select Communications Type**

1. ***Ethernet***



If a NT-LAN232 device is being used to connect the Controller to an Ethernet Network, select this option. Type in the IP Address and TCP Port that have been configured in the NT-LAN232. (For information on how to setup the NT-LAN232 refer to the NT-LAN232 Installation Guide.) This will typically be set to 10001.
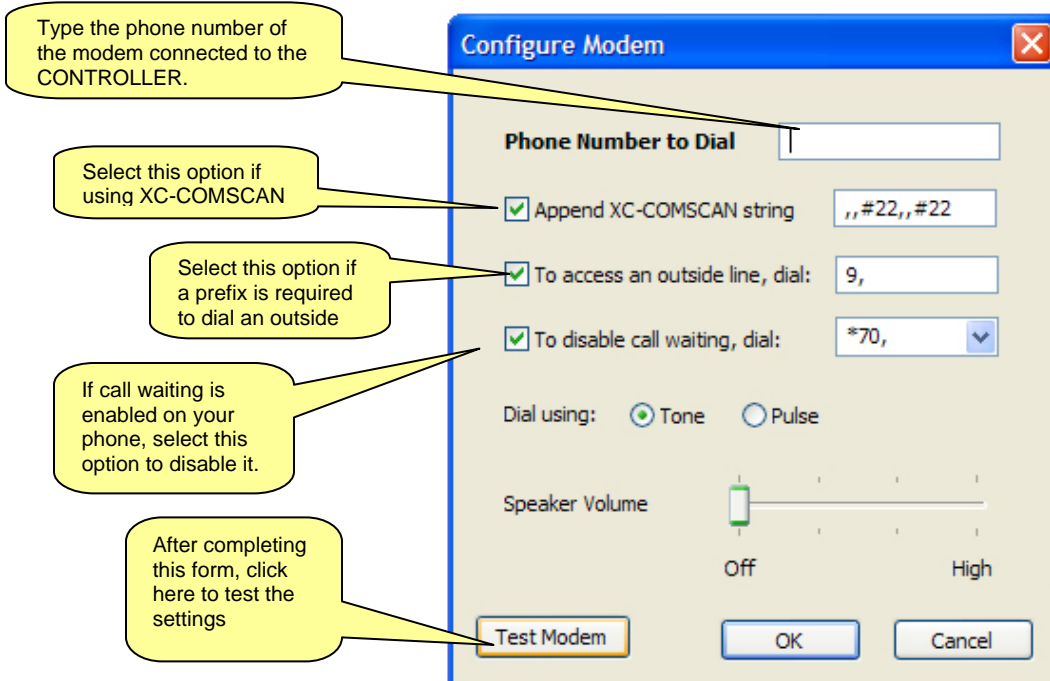
2. ***Serial***



Select this option if the NT-SSA Controller is being connected to the PC directly via a COMM Port. Select the correct COMM Port from the list.

3. ***Modem***



If an NT-Modem is connected to the Modem Port of the NT-SSA Controller, select the Modem option. Select the COMM Port that the modem is connected to on the PC.

Click the **Configure Modem** button and fill in the necessary information.

Type the phone number of the modem connected to the CONTROLLER.

Select this option if using XC-COMSCAN

Select this option if a prefix is required to dial an outside

If call waiting is enabled on your phone, select this option to disable it.

After completing this form, click here to test the settings

c. Click the ON-LINE/OFF-LINE button at the top right of the screen if it is RED… If it is already GREEN then there is no need to click it. See below.



**Offline**          **Online**
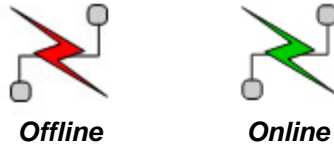
d. Once the lightning bolt on the ON-LINE button is GREEN, there should be a GREEN ball next to the entry for the controller in the CONTROLLER TABLE.  The chart below show the meanings of the different ball colors for each table.

| Color | Table | Indication |
|---|---|---|
| (gray) | Controller | Offline (no communication attempted) |
| | Relay | Offline (no communication attempted) |
| | Thermostat | Offline (no communication attempted) |
| (yellow) | Controller | Connection Pending (Establishing an Ethernet socket or modem connection) |
| | Relay | N/A |
| | Thermostat | N/A |
| (blue) | Controller | Connection Established (Ethernet socket or modem) |
| | Relay | N/A |
| | Thermostat | N/A |
| (red) | Controller | Communication Failure / Not-Connected |
| | Relay | Communication Failure / Not-Connected |
| | Thermostat | Communication Failure / Not-Connected |
| (green) | Controller | Connected and Communicating |
| | Relay | Connected and Communicating |
| | Thermostat | Connected and Communicating |

## STATUS TABLE

e. **Set System Clock**



This function synchronizes the clock on the NT-SSA*/CLK Controller to the same time as the System Clock of the PC (The time displayed at the bottom right of the Task Bark on a Windows Based computer.)  This is necessary to ensure that the schedules run properly.

1. Click the "SET SYSTEM CLOCK Button" at the top middle of the NetworkThermostat Command Center Screen. (Pictured Above)
2. A window will pop up and it will take a few seconds to refresh the current time on the NT-SSA Controller.  Once it has refreshed, click "Yes" to set the controller's clock to match the PC.



**NOTE**    *If you are not able to do this you will NOT be able to communicate with any thermostats. Determine and fix the problem with this before proceeding with the system setup!  Also, note that you will not be able to set the system clock if there is no GREEN ball next to the controller in the CONTROLLER TABLE. [See STATUS TABLE above.]*

## 2. Add Thermostats



a. Click on the "**+** Thermostat Button" (Pictured Above)
   a. Proceed through each step of the Thermostat Wizard
      i. Select the Controller to Add the thermostats to
         (This is the controller the thermostats are physically connected to via X1 and X2. Also, this option will only appear if there is more than one controller in the project)

      ii. Select the Thermostat Type
         a. **SST-1**
            Single Stage Gas/Electric
         b. **MST-1**
            2 Stage Heat, 2 Stage Cool Gas/Electric
         c. **HPT-1**
            2 Stage Heat, 1 Stage Cool Heat Pump
         d. **HPT-2**
            3 Stage Heat, 2 Stage Cool Heat Pump

      iii. Select to Add Single Thermostat or a Range of Thermostats based on the address configured in the thermostat(s)

      iv. Give the thermostat or thermostat range a meaningful name.

      v. Click FINISH and the thermostat status screen for the first thermostat added should appear in the MAIN WINDOW.

b. OR Right click on the controller in the Tree and select "Detect Thermostats" This tells the software to look for any thermostat that is addressed and connected to the controller and add it to the list.


**NOTE**

*The "Detect Thermostats" option will only work if all of the thermostats are already properly installed and addressed 1 – 32*

## 3. Create Thermostat Schedules



a. Click on the "**+** Schedule Button" (Pictured Above)
b. Select the thermostat to which this schedule will be applied. (To add the same schedule to multiple thermostats go to **Step f** in this section or to add a schedule to ALL thermostats see S**tep 4. Create Global Schedules** below)
c. Or Right Click directly on the thermostat in the Tree and select "New Schedule"
d. Proceed through each step of the Thermostat Schedule Wizard
   i. Type a meaningful name for the schedule. (Such as "Weekly Office Schedule")

   ii. Select the schedule type
      1. **Run Once** – This type of schedule will occur only once at a specified date and time.


**NOTE**

*If one of the Weekly Recurring schedules below has already been added to the thermostat selected then Run Once will be the only option available, no other types of schedules can be selected. Each thermostat can have only ONE Weekly Recurring schedule.*

2. **Weekly Recurring** – Each thermostat can have only one of this type.  Each day of the week can be set differently or by selecting the check boxes at the bottom of the setup screen and clicking "Copy Schedules" multiple days can be set the same.
   a. **Two-Event** – Up to two different settings can be made per day.
   b. **Four-Event** – Up to Four different settings can be made each day.
   c. **Six-Event** – Up to Six different settings can be made each day.

3. Click **OK** and the schedule settings will show up in the Main Window.

e. Modify the schedule to appropriate times and temperature settings and click "Apply"

**NOTE**   *These schedules WILL NOT take affect until **Step 5. Downloading Schedules** is completed.*

f. **TIP: TO COPY SCHEDULES FROM ONE THERMOSTAT TO ANOTHER, HOLD DOWN CTRL WHILE DRAGGING SCHEDULE FROM ONE THERMOSTAT TO ANOTHER IN THE TREE.**

## 4.  Create Global Schedules

a. Click on the "**+** Global Schedule Button" (Pictured Above)

b. Select the controller to which this schedule will be applied. (If there is only one controller then this step will be automatically skipped)

c. Proceed through each step of the Global Schedule Wizard
   1. **Run Once** – This type of schedule will occur only once at a specified date and time.

**NOTE**   *If one of the Weekly Recurring schedules below has already been added to the thermostat selected then Run Once be the only option and you will not be able to select any of the other types of schedules.*

   2. **Weekly Recurring** – Each thermostat can have only one of this type.  Each day of the week can be set differently or by selecting the check boxes at the bottom of the setup screen and clicking "Copy Schedules" multiple days can be set the same.
      d. **Two-Event** – Up to two different settings can be made per day.
      e. **Four-Event** – Up to Four different settings can be made each day.
      f. **Six-Event** – Up to Six different settings can be made each day.
   3. **Vacation** – This will allow the user to suspend all pending schedules for a pre-determined date range.

**NOTE**   *The PC running the Command Center software must be running for the start and finish of this schedule for it to work properly.*

   4. Click OK and the schedule settings will show up in the Main Window.

d. Modify the schedule to appropriate times and temperature settings and click "Apply"

**NOTE**   *These schedules WILL NOT take affect until **Step 5. Downloading Schedules** is completed.*

## 5. Downloading Schedules

**VERY IMPORTANT**: No schedules will run from the controller until they are downloaded and started. Follow the steps below EVERY time a schedule is changed, added or modified.

| **1.** *Stop Scheduler* | **2. Download Schedules** | **3. Start Scheduler** |
|:---:|:---:|:---:|

a. **Stop Scheduler:** Once this has been clicked, the controller will not run any more schedules.

b. **Download Schedules:** This will send ALL of the schedules configured in the open project to the corresponding controller. At the end of this download the Start Scheduler function is run automatically and there is no need to press it again.

c. **Start Scheduler:** This can be used to start the scheduler back up if the scheduler has been stopped but no schedules have been changed.

**NOTE** *If there are no relay modules (NT-REL) in the project, the rest of this guide can be skipped. The project should be complete, make sure all schedules are downloaded and all thermostats are communicating.*

## 6. Add Relay Module (NT-REL)

a. Click on the "**+** Relay Button" (Pictured Above)
b. Go through Add Relay Wizard.
   - i. Choose Parent - If there are more than one NT-SSA2/CLK Master (Network Address 1) Controllers select which one the relay being added is connected to via RS485. If there is only ONE NT-SSA2/CLK Master then this step will be skipped.

   - ii. Type a meaningful name for the relay module. Click NEXT.

   - iii. Select the correct address that corresponds to the address set with DIP switches on the NT-REL. (64 is the default). Click NEXT.

   - iv. Type individual **Relay Names** and conditions (State). Depending on how each relay is wired on the relay module (either Normally Open or Normally Closed) the name and function can be described by the end user on this screen. Click NEXT.

**NOTE** *Be sure to accurately and fully name the relays and corresponding state (ON or OFF) on this screen for ease of use in the future, although they can be changed later if necessary by clicking the "Edit" button.*

EXAMPLE RELAY NAME:   Outdoor Lighting OFF
                      Outdoor Lighting ON

   - v. Individual Relay Icons – each individual relay on the NT-REL can be assigned an application specific icon on this screen of the wizard.

   - vi. Click FINISH and the Relay Screen will appear in the Main Window. From this screen individual relay status can be viewed and the state can be toggled manually by clicking the buttons below each relay icon. NOTE: if the

## 7. Create Relay Schedules

a. Click on the "**+** Schedule Button" (Pictured Above)
(This is the same button used for the Thermostat schedules)

b. Select the RELAY Module (NT-REL) to apply the schedule to

c. OR Right click directly on the Relay in the Tree and select "Add Schedule"

d. Go through Relay Schedule Wizard – This will only apply to ONE of the relays on the NT-REL Module unless it is a Vacation Schedule.
  i. Give the Relay Schedule a meaningful name.

  ii. Select the type of schedule.
    1. **Run Once** – This type of schedule will occur only once at a specified date and time.
    2. **Weekly Recurring** – A weekly schedule can be set up for EVERY day of the week to be identical or each day of the week can be set differently or by selecting only the check boxes at the bottom of the setup screen corresponding to the days to be included and clicking "Copy Schedules" multiple days can be set the same.
    3. **Vacation** – This type of schedule will allow the user to suspend all pending schedules for a pre-determined date range. ALL RELAYS must be included in a vacation schedule (skip step iii).

**NOTE**
*The PC running the Command Center software must be running for the start and finish of this schedule for it to work properly.*

  iii. Select which Relay on the NT-REL Module this schedule will be applied to.

  iv. Click FINISH and the Relay Schedule screen for this new schedule will appear in the Main Window. Modify the Time, Date, and Relay State to fit the desired application for this schedule and click "Apply"

**NOTE** **VERY IMPORTANT NOTE:** *You must repeat Step 5 if any schedules, including Relay Schedules, are ADDED for the Schedules to be active in the controller. NO SCHEDULES WILL RUN IF THIS STEP HASN'T BEEN COMPLETED!*