CXpro^{HD} Site Organizer

Style conventions used in this document:

UI Text: Text that represents elements of the UI such as button names, menu options etc. is presented with a grey background and border, in Tahoma font which is traditionally used in Windows UIs. For example:

Ok

Standard Terms (Jargon): Text that is not English Language but instead refers to industry standard concepts such as Strategy, BACnet, or Analog Input is represents in slightly condensed font. For example:

BACnet

Code: Text that represents File paths, Code snippets or text file configuration settings is presented in fixed-width font, with a grey background and border. For example:

```
$config_file = c:\CYLON\settings\config.txt
```

Parameter values: Text that represents values to be entered into UI fields or displayed in dialogs is represented in fixed-width font with a shaded background. For example

`10°C`

Product Names: Text that represents a product name is represented in bold colored text. For example

INTEGRA™

Company Brand names: Brands that are not product names are represented by bold slightly compressed text:

ABB Active Energy

PC Keyboard keys: Text representing an instruction to press a particular key on the keyboard is enclosed in square brackets and in bold font. For example:

[Ctrl]+[1]

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1   Introduction

OVERVIEW

The **Site Organizer** provides you with an easy way to set up files on the Communications Controller and Field I/O Controllers on an **ABB Cylon®** Site. It allows you to download strategy, setup, global and keypad files to all the Comms Controllers and Field controllers on a site in one simple operation. A "site" is a group of one or more **ABB Cylon®** Controllers connected together and communicating with each other. A site usually corresponds to a discrete environment unit, such as a room, a building, or a campus.

A combination of files can be downloaded to any combination of controllers or to one particular type of controller. Files can be uploaded from the controllers on a site to the supervisor PC.

Note:	A **download** refers to the transmission of a file from a PC to a **Cylon®** controller. An **upload** refers to the transmission of a file from a **Cylon®** controller to the supervisory PC.

The **Site Organizer** operates through the use of instructions. The instructions tell the program which files are to be uploaded from or downloaded to controllers on the site.

Note:	The Site and the Controllers must be set up first using **CXpro^{HD}**.

GETTING STARTED

Note:	**CXpro^{HD} must be running.**

1. Double-click on the **Site Organizer** icon in the Utilities group of the Ribbon's Home tab.

   The **Site Organizer** Window will appear:
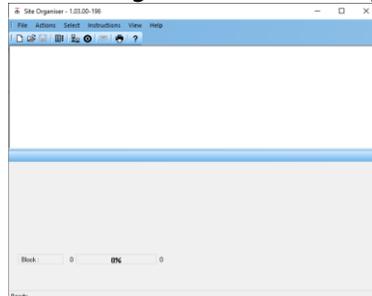
2. Go to the File menu and sign on, if you have not done so already.

3. Go to the Select menu and choose Site. The Select Site dialog box will appear. Choose the Site to be configured.

4. Go to the Select menu and choose Targets. The Select Targets dialog box will appear. Select the Comms Controllers and Field Controllers on the selected Site.

5. The relevant Field Controller option (UC32... or UC16...) and Comms Controller option (UC32.net.. or UCC4...) in the Instructions menu will now become active and it will be possible to set up the instructions for the controllers.

6. The user can change target controllers and define new instructions for these controllers. This process can be repeated until all tasks or instructions are defined.

Note:	**These steps should be completed in this order or the Site Organizer will not work properly.**

2   Using the Site Organizer

THE PURPOSE OF THE SITE ORGANIZER

In order for the **CXpro^HD** system to operate, several types of 'Files' must be present on the system's controllers. These files include:

- Setup files, describing the configuration of the system

- Strategy files, defining how controller outputs will react to controller inputs

- Keypad files, setting the way controllers will interact with attached keypads

- Schedule files, containing timing information for strategies

- Alarm files, listing the messages that controllers will send out when particular conditions arise in the system.

…among others. The **CXpro^HD Site Organizer** is designed to help you to set up, maintain, and back up files on Sites on a **CXpro^HD** network.

Note:	In order to use the **Site Organizer**, you must sign on, and then select the controllers that will be configured.

Files can be downloaded to any combination of controllers or to one particular type of controller. Files can be sent from the supervisor PC to the controllers on a Site, or they can be sent from controllers to the supervisor PC.

The **Site Organizer** uses a 'batch' method, which means that to configure or analyze a Site you must:

- define a set of 'instructions', and then

- tell the **Site Organizer** to carry out the instructions in that set.

When the batch is run, all of the instructions are carried out, and the appropriate files are then sent to their specified destinations.

The instructions can be edited before they are executed, and the number of controllers on each Site can be altered. Dialog boxes are used to define the parameters for each instruction.

The **Site Organizer** can be used to make a backup of the files on a Site. Files from a Site, or an individual controller, are transferred to and stored on a PC. They can then be restored to the Site at a later date, or copied to a different Site.

DOWNLOADING FILES TO CONTROLLERS

After you have selected the Comms Controllers and Field Controllers to which you want to send files, you can then create a batch of instructions that will tell the **Site Organizer** which files are to be downloaded.

To download files you need to:

- Specify the Site to and controllers to which you want to download files, see

- *Choosing the controllers that will be affected by the actions of the Site* Organizer on page 11

- Set up a batch of instructions that will tell the **Site Organizer** which files are included in the download, see *Selecting the files that will be included in an upload or download* on page 13

- Set the 'direction' radio buttons at the top of each Instruction dialog to Download

- Run the instruction batch, see

- *Running* Instructions on page 17.

Note:	When you download a Strategy to a BACnet controller, any configuration that has been set by a separate B-OWS – e.g. an Alarm Recipients list – will be wiped. You must re-download the Alarm Recipients list, and any other B-OWS specific configuration after the Strategy download is complete.

UPLOADING FILES TO THE SUPERVISORY PC

You may want to upload files from the controllers on a Site to examine them on the supervisor PC.

The information that is uploaded from the controllers on a Site is placed into default files. As the information is being uploaded, the **Site Organizer** will display the names of the files in which the information is being placed. The newly created files can then be viewed in **CXpro^HD**.

You can use the **Site Organizer** to upload files from the controllers on a Site to the supervisor PC.

After you have selected the Comms Controller and Field Controllers that the program will target, you can create a batch of instructions that will tell the **Site Organizer** which files to upload.

To upload files you need to:

- Select a Site, see *Selecting a Site* on page 11

- Select the controllers from which you want to upload files, see *Selecting the controllers* on page 11

- Set up a batch of instructions that will tell the **Site Organizer** which files are included in the upload, see *Selecting the files that will be included in an upload or download* on page 13

- Set the 'direction' radio buttons at the top of each Instruction dialog to Upload

- Run the instruction batch, see

- *Running* Instructions on page 17

CHOOSING THE CONTROLLERS THAT WILL BE AFFECTED BY THE ACTIONS OF THE SITE ORGANIZER

When you are using the **Site Organizer** you must specify the Site that you want to download files to, or upload files from. When you have selected a Site, you must select the Comms Controller and Field Controllers that are to be affected by the actions of the program.

One Site at a time can be configured using the **Site Organizer**.

SELECTING A SITE

To select the Site that you want to work on, either select Site from the Select menu, or click on the Site button ▣ in the Toolbar.

The Select Site dialog box will appear, displaying a list of the Sites in the system. Click on the one to be selected.

- Click on the OK button to select the highlighted Site.
- Click on the Cancel button to cancel the dialog box without selecting a Site.
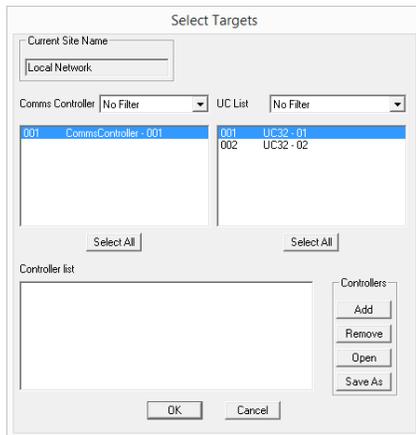
SELECTING THE CONTROLLERS

After a Site has been selected, you must select the Comms Controllers and Field Controllers that will be affected by the actions of the **Site Organizer**.

Note: **This cannot be done until the Site has been selected.**

Select Targets… from the Select menu, or click on the Target button ◉ in the Toolbar.

The Select Targets dialog box will appear, displaying the name of the Site that has been chosen in the Select Site dialog as Current Site name.

Selecting the Communications Controllers

The Comms Controller List (on the left hand side of the dialog) contains a list of the **Communications Controller**s on the Site.

The list may be filtered to contain only certain types of Comms Controller, by using the options in the drop-down list at the top of the list. If the No Filter option is selected, all Comms Controllers on the Site will be listed.

Select the Comms Controllers to be targeted by clicking on them in the Comms Controller list. You can select all of the Comms Controllers on the Site by clicking the Select All button.

Selecting the Field Controllers

When you select a Comms Controller, the attached Field Controllers are displayed in the UC list.

The list may be filtered to contain only certain types of Field Controller, by using the options in the drop-down list at the top of the UC list. If the No Filter option is selected, all Field Controllers attached to the selected Comms Controllers will be listed.

Select the Field Controllers to be targeted from the UC list. You can select all of the Field Controllers on the Site by clicking the Select All button.

When you click the Add button, the selected controllers are added to the Controller list.
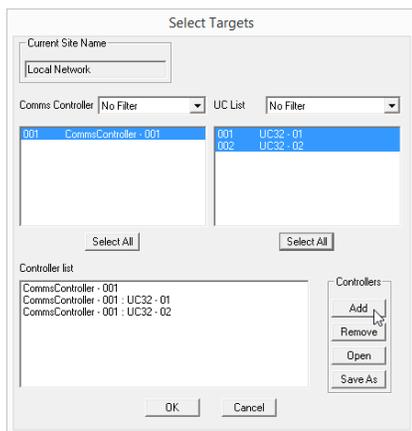
If you want to remove a controller from the Controller list, highlight the controller in the list and click on the Remove button.

Saving a Target list

It is possible to save the contents of the Controller list so that it can be quickly and easily recalled at a later time. To save the Controller list, click the Save As button and specify a filename under which it will be saved.

Opening a saved target list

To recall a previously saved Controller list, click on the Open button, and select the filename under which the list was saved.

SELECTING THE FILES THAT WILL BE INCLUDED IN AN UPLOAD OR DOWNLOAD

To download files to the controllers on a Site using the **Site Organizer**, you need to add instructions to the batch specifying which files are to be downloaded to which controllers.

This is done by opening the Instructions dialog for the relevant controller type, configuring the required download, and adding the instructions to the batch. The Instruction dialogs are opened from the Instruction menu for

- **UCC4**-type communications controllers
- **UC32.net/CBR**-type communications controllers
- **UCxx/UCU**-type Fieldbus controllers
- **UC32/CBM/CBT**-type Fieldbus controllers

THE 'ASSOCIATED FILES' OPTION

The **CXpro^{HD}** system allows files to be "Associated" with specific controllers. For Comms Controllers, this is done either through a configuration file as described below, and for Field Controllers, it is done through the **CXpro^{HD}** interface (see *MAN0133 CXpro^{HD}* for details).

For each file type within a Controller's Instructions dialog, the **Site Organizer** can be set to upload either the Associated file or a specified file. This is set from the individual instructions dialog for the 'file' within a controller.

Using the Associated Files option saves time as it can be used to automate the selection of files that will be added to a download.
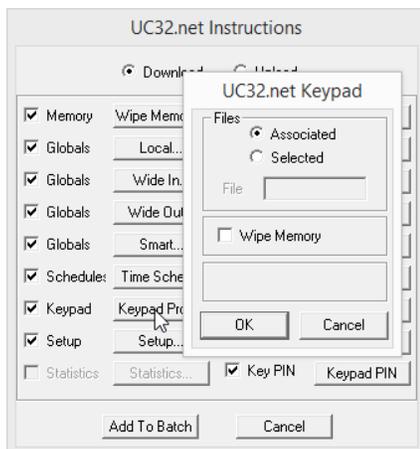
For example, in the UC32.net Keypad instruction dialog box shown above the Associated option has been selected, which means that whichever Keypad file has been associated with the **U32C.netK** will be included in the next download to that Comms Controller.

HOW TO ASSOCIATE FILES WITH A COMMS CONTROLLER

Associations are created through the use of `.MAK` files. `.MAK` files are text files (like `.ini` files) and can be created in any editor.

Note:	Field Controller files (e.g. Strategy files) can be Associated using the **CXpro^HD** interface - see *MAN0133 CXpro^HD* for details.
	However, Comms Controller associations can only be defined manually.

`.MAK` files must be stored in the appropriate directory for each Comms Controller. Also, the filename must reflect the first three letters of the Site directory name and the Comms Controller number.

For example, the `.MAK` file for Comms Controller number 1 on a Site called `LAN` would be stored in the following path:

```
UnitronUC32\Lan\Dbase\1\LAN001.MAK
```

The `.MAK` file for Comms Controller number 2 on on a Site called `FACTORY` would be stored in the following path:

```
UnitronUC32\FACTORY\Dbase\2\FAC002.MAK
```

Example:	You decide that you want to create associations between Comms Controller number 3, on the `LAN` Site, and certain specific files. You can use **Notepad** to create the file that will specify the associations. For the Associated function to work, the file must be saved with the `.mak` extension, and in the correct directory. With this in mind, you save the file as `UnitronUC32\Lan\Dbase\3\LAN003.mak`.

The Associated Files "Setup"

The Comms Controller associated files "Setup" is stored in the `CONFIG.TXT` file with the other Site configuration details (port config, alarms config and daylight saving.)

This file will not be present until Setup is sent (i.e. downloaded), using **CXpro^HD**, and uploaded in the **Site Organizer**. This procedure must be performed by the user, as it is not carried out automatically by the **Site Organizer**. The file will then appear in the following location: `UnitronUC32\LAN\Dbase\1\Config.txt`.

Note:	The `config.txt` file should not be edited, as any changes may cause **CXpro^HD** to function incorrectly.

COMMS CONTROLLER 'ASSOCIATED FILES' CONFIGURATION

For a Comms Controller, a `.MAK` file should be in the following format:

```
[UCC4]
DefaultName=
Globals=
Keypad=
```

`DefaultName=`

This is the filename to be used as a default if the Associated file cannot be found, e.g. (`DefaultName=UCC4`). It is not essential that you enter a default name. The name of the file defines the controller with which the files specified below are to be associated.

`Globals=`

This entry specifies the name of the file containing Globals to be Associated with the Comms Controller. The pathway and the extension are not specified here, just the name e.g.`Globals=Global`.
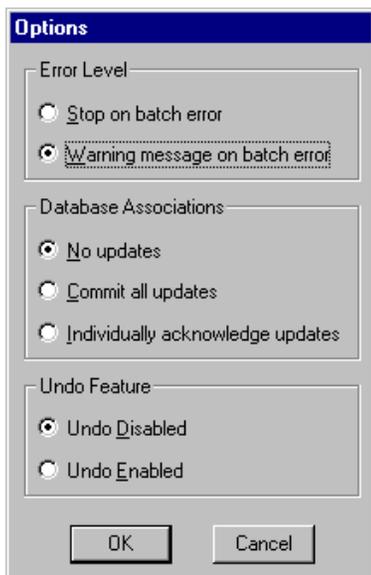
`Keypad=`

The same applies for the Keypad files (`Keypad=first`) no pathway or extension.

Sample

```
[UCC4]
DefaultName=UCC4
Globals=Global
Keypad=first
```

AUTOMATICALLY UPDATING THE ASSOCIATIONS BETWEEN FILES AND CONTROLLERS

To automatically update the associations between files and controllers, select Options... from the Select menu to open the Options dialog:

The Database Associations section of the dialog updates the associations between controllers and specific files through the use of the associated function.

Information about associations between a controller and specific files is contained in an associated (`.mak`) file. If you download a file to a controller that is different to the file specified in the associated file, the Database can be updated so that the new file you have selected will become the default associated file for that controller. For more information, see page 13.

No Updates

If you select this option, the Database will not be updated.

Commit All Updates

The Database Interface will be updated automatically.

Individually acknowledge updates

The Database will not be updated automatically. A Message box will appear giving the user the choice as to whether to update the Database or not.
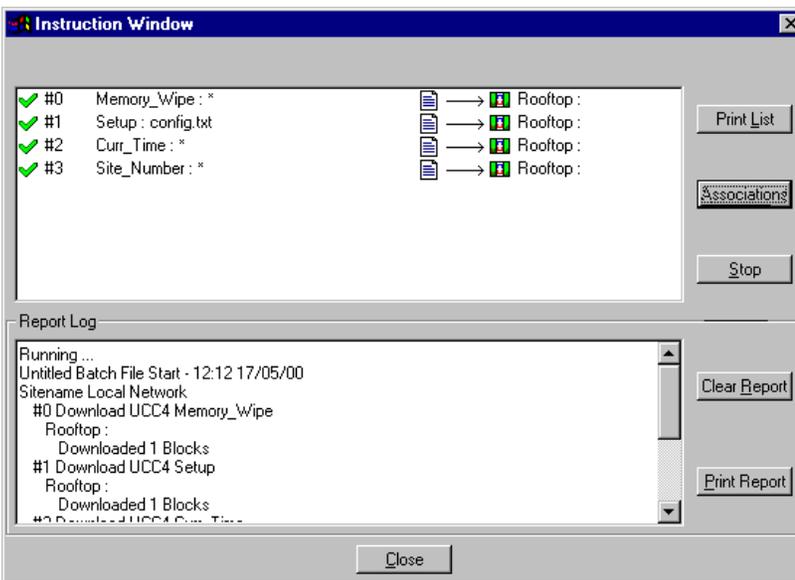
RUNNING INSTRUCTIONS

To execute the instructions contained in the batch, click on the Run button ▤↓ in the Toolbar, or select Run/Complete Batch from the File Menu.
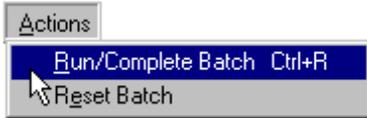
You will be asked to confirm before running:
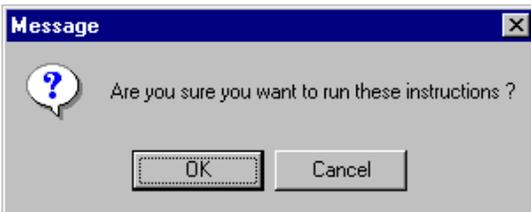
After you click the OK button, the Instructions Window will open to display the progress of the batch:

While the Instructions are running the Status Bar will display the block numbers being sent and the percentage of the completed batch.


When the instructions are running, the Undo button will change to a Stop button and when they are finished the button will change back to the Undo button.

If any incomplete instructions remain when the batch has been run, click again on the Run button to re-run the batch.

EDITING THE INSTRUCTIONS BATCH

Once a batch of instructions has been set up it is possible to view and edit them before they are run and sent as a batch to the Site.

Select Instructions/Target Window from the View Menu to open the Instructions dialog. This lists the instructions contained in the batch.
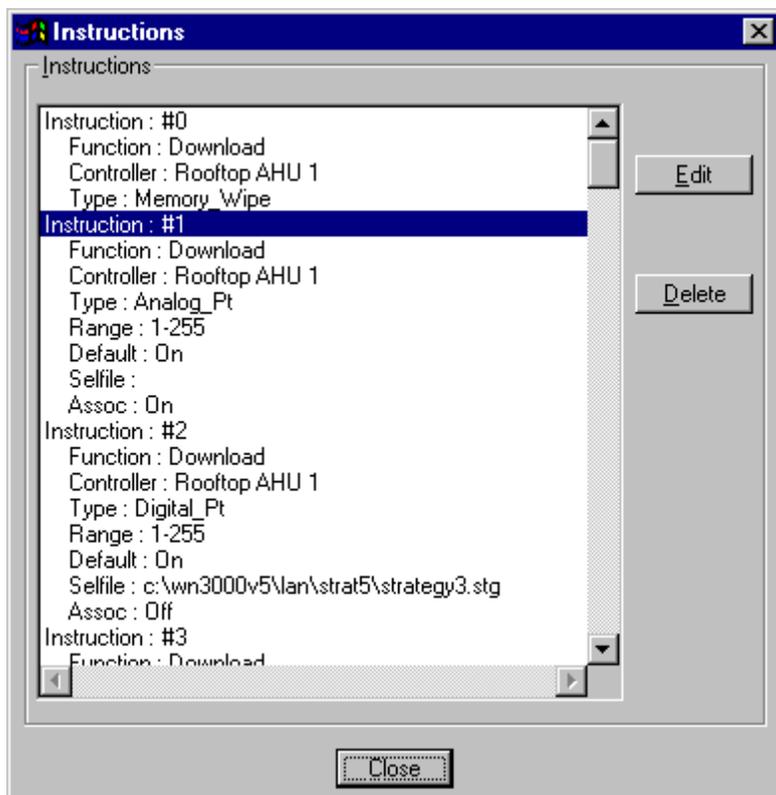
The Instructions list box contains the instructions to be sent to the Site. For each instruction you can see the instruction number, whether it is an upload or download, the target controller, the command type and the parameters that have been configured.

Editing the Instructions in the batch

You can edit any of the instructions in the list. To do this, select an instruction in the list and click on the Edit button. The dialog box for that instruction type will be displayed, allowing the parameters for the selected instruction to be edited.

Removing an instruction from the batch

To remove an instruction, select it in the list and click the Delete button.

ERROR HANDLING

You can configure the way that the **Site Organizer** will react if an error occurs when instructions are being carried out.

To set the way the **Site Organizer** will react to an error, select Options from the Select menu to open the Options dialog.

The Error Level section of the dialog determines how the program will react if an error occurs when a batch of instructions is being executed.

If the Stop on batch error option is selected, the program will stop executing the instructions in the current batch if an error occurs during an upload or download.

If the Warning message on error option is selected, a warning message will appear on screen when an error occurs during an upload or download. For example:

```
#2 Download UC16 Modem
Warehouse : UCXX - 001
Unable To Load File \UnitronUC32\lan\modem\di002001.mos - 26 Blocks
Downloaded 0 Blocks
```
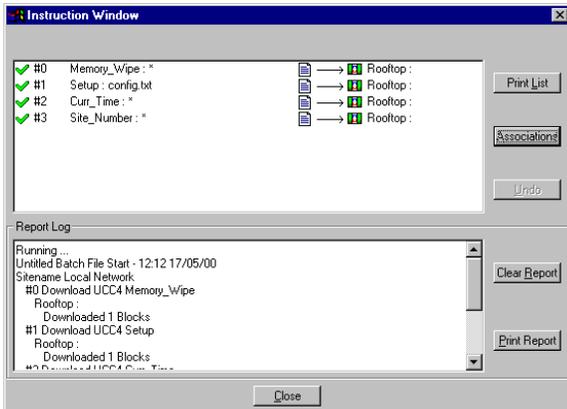
VIEWING THE REPORT LOG

The Report Log shows the progress of running an instruction batch file, as files are downloaded or uploaded.

Select Association/Run Window from the View menu.

This opens a dialog that contains two windows – the lower window shows the Report Log, and the upper window shows either the Association Window :
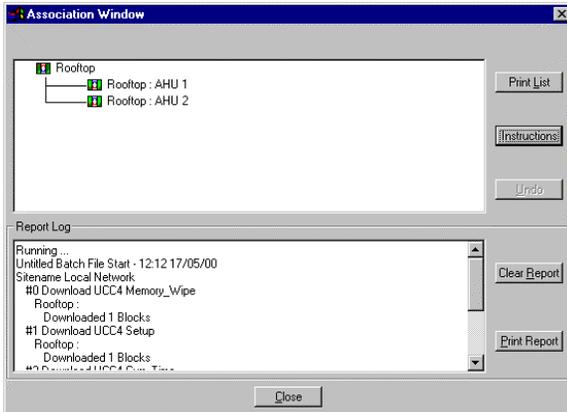
or the Instruction Window :

The Association Window shows a diagram of the path to the Comms Controller and Field Controllers on the Site.

The Instruction Window shows the progress of the Instruction batch.

The dialog has a number of buttons:

Print List : This prints the association list, showing the associations between controllers and specific files.

Instructions / Associations This is a toggle button that switches between the Instructions Window and the Association Window .

Clear Report This clears the Report Log window.

Print Report : this prints the contents of the Report Log window .

SAVING AN INSTRUCTION BATCH

After you have created an instruction batch file, it can be saved and stored for later use, or it can be used on another Site.

Select Save from the File menu or click on the Save button 💾 in the Toolbar.

If the file has not been saved before, the Save As dialog box will appear. Specify the filename and location for the saved file.

Files will be saved in `.ins` format.

If the file has been saved before, the existing file will be overwritten with the same name.

OPENING A PREVIOUSLY SAVED INSTRUCTION BATCH

You can open a previously saved instruction batch.

Select Open from the File menu or click on the Open button 📂 in the Toolbar.

The Open dialog box will appear, displaying existing files of .ins types. Navigate to the location of the previously saved batch.

CREATING A NEW FILE

You can close and save the instruction batch that you are working on at any time and begin creating a new batch.

Select New from the File menu or click on the New button 📄 in the Toolbar.

The option will be given to save the current batch of instructions before the new document appears.

BACKING UP INFORMATION FROM A SITE

If you are planning on making any changes to a Site, but want to have the option of restoring the original settings, you can make a copy of the information that is currently stored on the controllers and store it on the supervisory PC. This is also useful for recovery if information on a controller is corrupted.
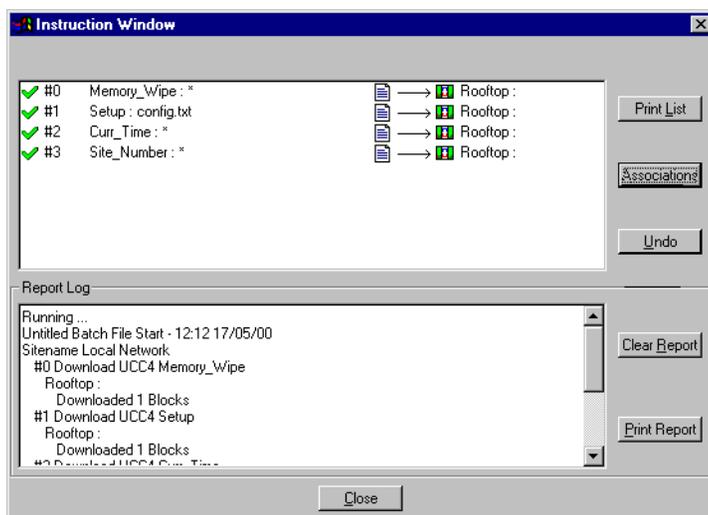
A back up of a Site or controller can be created through the use of the **Site Organizer** - the program will automatically create a batch file that contains the instructions required to upload all the information from a Site or controller. When the instructions in the file are executed, a backup of information from the Site is created.

To back up information from a Site

- Select the Backup option from the Select Menu.

- Select the Site or section of a Site that you want to back up.

Note: The item selected in the Site List determines how the backup will proceed. If you select a Comms Controller or Field Controller in the list, only the information relevant to that device will be uploaded. If you select a Site, the information for all of the attached devices will be uploaded.

- Click the Start Backup button.

- Click the OK button to run the instructions that will create a backup - the Instruction Window will open, showing you the progress of the backup process.

RESTORING INFORMATION TO A SITE

Information that has been backed up from a Site or controller can be restored through the use of the **Site Organizer** - the program will automatically create a batch file that contains the instructions required to download all the information to a Site or controller. When the instructions in the file are executed, information is restored to a Site or controller.

To restore information to a Site

- Select the Restore option from the Select Menu.

- Select the Site or section of a Site that you want to restore.

> **Note:** The item selected in the Site List determines how the restoring will proceed. If you select a Comms Controller or Field Controller in the list, only the information relevant to that device will be restored. If you select a Site, the information for all of the attached devices will be restored.

- Click the Start Restore button

- Click the OK button to run the instructions to restore information - the Instruction Window will open, showing you the progress of the restore process.
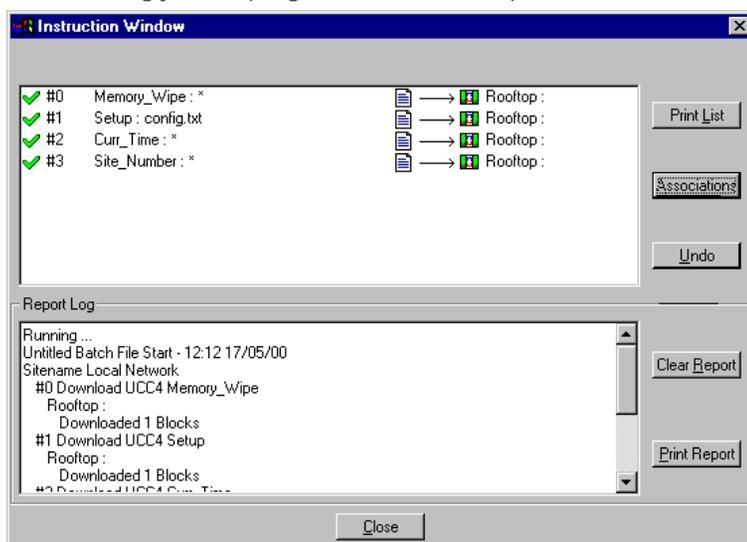
PRINTING INFORMATION FROM THE SITE ORGANIZER

The following information can be printed from the **Site Organizer**:

- The content of the Instruction Window
- The content of the Association Window
- Uploaded Statistics
- The content of the Report Log window.

Select Print Setup from the File menu or choose the Printer button from the Toolbar.
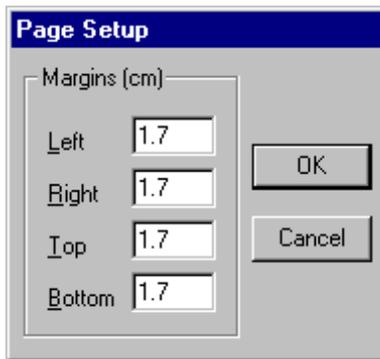
Altering the Printer Setup

Select Print Setup from the File menu. The generic Print Setup dialog box will appear.

The named printer and other parameters can then be altered.

Altering the Page Setup

Select Page Setup from the File menu.

The Page Setup dialog box will appear. This allows you to set the page margins for **Site Organizer** printouts.

3 Comms Controller Instructions

INTRODUCTION

Instructions are set up for the Communications Controllers on the Site using either the UC32.net Instructions panel or the UCC4 Instructions panel. To open the relevant panel, select either UC32.net... or UCC4... from the Instructions menu or click the .net or UCC4 button in the Toolbar.

The Comms Controller Instructions panel allows access to different Instructions depending on the load direction (Download or Upload) and controller type:
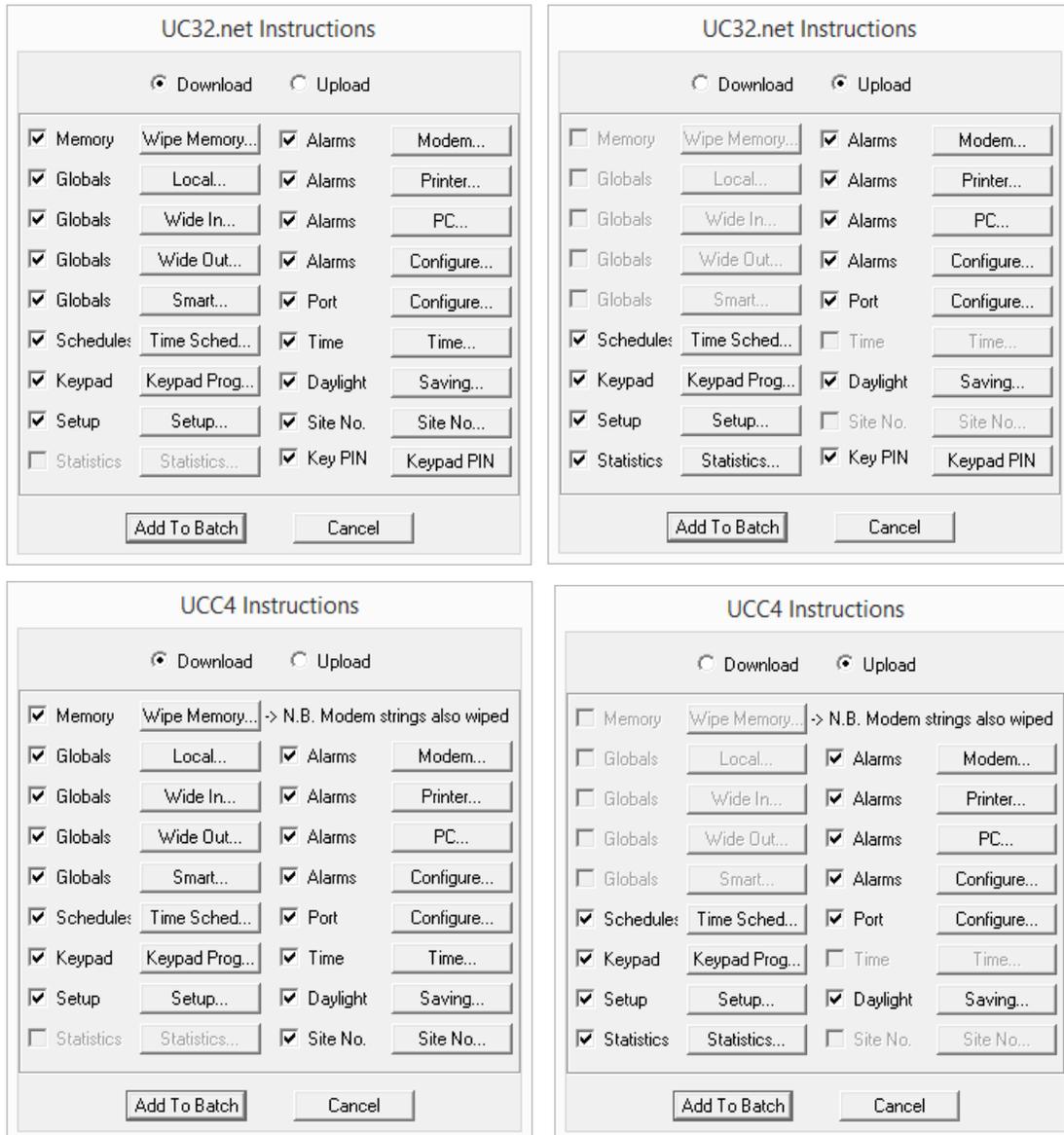
The UC32.net Instructions panel includes KeyPad Pin, which UCC4 Instructions panel does not.

When Download direction is selected, the Statistics Instruction is not available.

When Upload direction is selected, the Statistics Instruction is available, but the Memory, Time, Site No. and the four Globals Instructions are not.

BUTTONS AND CHECKBOXES

Download / Upload radio buttons

Selects whether information will be downloaded from the PC to the controllers or uploaded from the controllers to the Supervisory PC.

Instruction Checkboxes

If the checkbox beside an Instruction is ticked, then that Instruction will be added to the Batch, and the latest configuration for that Instruction will be applied. If the box beside an Instruction is cleared, that Instruction will not be included in the Batch the next time it is run.

Instruction Buttons

Clicking the Button for an Instruction allows that Instruction to be configured.

Add To Batch

Clicking this button adds the configuration of the Instructions panel – the selected Instructions and the parameters set for each one – to the Batch that will be run when Run/Complete Batch is selected from the Actions menu (see

Running Instructions on page 17).

Cancel

Closes the panel without altering the Batch.

INSTRUCTIONS

MEMORY WIPE

To wipe the Comms Controller's memory when a batch is run before any of the other instructions in the batch are downloaded, tick the Wipe Memory checkbox on the Comms Controller Instruction panel.

Note:	If you wipe the memory of a Comms Controller that is connected to the PC via a modem, this will cause the modem strings to be wiped from the Comms Controller's memory. This means that you will have to download the modem strings to the Comms Controller again.

No configuration is required for Memory Wipe. Clicking the Wipe Memory button displays an information box:
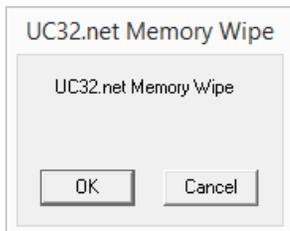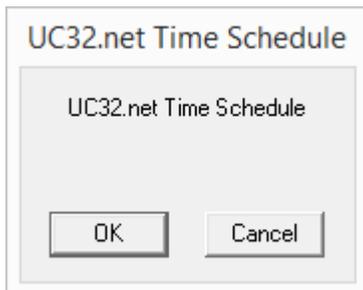

Press OK or Cancel to close the box.

TIME SCHEDULE

To include Time Schedules in the instructions batch, tick the Schedules checkbox on the Comms Controller Instructions panel.
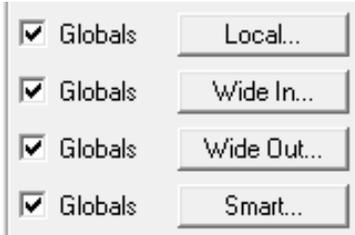
No configuration is required for Time Schedule instructions. Clicking the Time Sched... button displays an information box:


Press OK or Cancel to close the box.

GLOBALS

There are 4 separate types of Globals that can be included in an Instructions Batch: Local, Wide In, Wide Out and Smart.

To include or exclude any of these types of Globals to the Instruction Batch, tick or clear the checkbox next to each of Globals Local, Globals Wide In, Globals Wide Out or Globals Smart.

To configure the Globals that will be included in the Instruction Batch, click on the relevant button.

The dialog that will open for any of the Globals types will contain the same parameters:
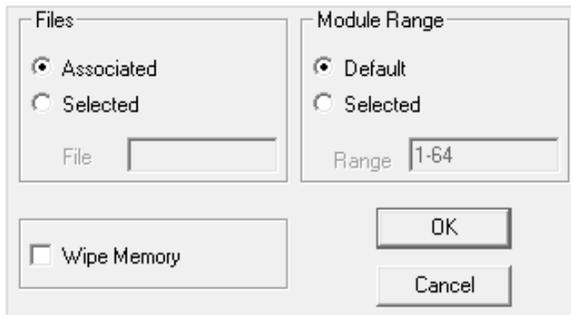
Files

If Associated is selected then each Comms Controller's Associated file (see page 13) will be used.

If Selected is selected then the Open dialog will be displayed to allow you to select a specific Globals file to send to all Comms Controllers on the Site. This will have the extension `.cmn`.

The File box will show the name of the selected file.

Module Range

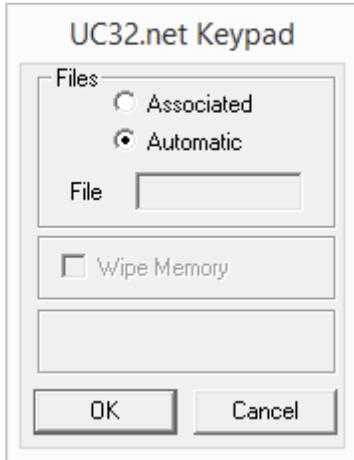If Default is selected then all the Local Globals will be included.

If Selected is chosen then a range of Local Globals to be included can be specified in the Range box. Values between 1 and 255 may be entered for Local Globals, and values between 1 and 64 for Wide In, Wide Out and Smart Globals.

Note:	It is possible to specify several ranges of globals such as `1,12,16-20,44,`

KEYPAD PROGRAM

Clicking on the Keypad Program button in the Comms Controller Instructions dialog box opens the Keypad dialog.

Files

If Associated is selected, then each Comms Controller's Associated file (see page 13) will be used.

If Download is set as the Batch direction, then there will be a Selected option. If Upload is selected there will be an Automatic option.

If Selected is chosen during Download, then the Open dialog will be displayed to allow you to select a specific Keypad Program file to send to all Comms Controllers on the Site. This will have the extension .kp4.

The File box will show the name of the selected file.

If Automatic is selected during Upload, then the Keypad information received from the **CXpro^{HD}** Site will be stored in files automatically created by the **Site Organizer**.

Wipe Memory

This option is disabled if Upload direction is selected

If this box is selected, the keypad program on each Comms Controller will be wiped before the new keypad program is downloaded.

SETUP

To include the controller Setup information in the instructions batch, tick the Setup checkbox on the Comms Controller Instructions panel.

Clicking on the Setup button in the Comms Controller Instructions dialog box opens the Setup dialog.

Note:	The parameters in this dialog can only be edited in Download mode, and only if the Associated file checkbox is **not** ticked.

The controller "Setup" is basic configuration that is stored on the controller.

Files

If Associated is selected then each Comms Controller's Associated file (see page 13) will be used, and the parameters of the Setup dialog will **not** be editable.

Composed

This is a Date and Time that will be stored in the controller. It is normally used to represent the time at which the Setup was downloaded to the controller.

Update File

If this option is checked, then the config.txt file on the PC will be kept in sync with the values on the controller.
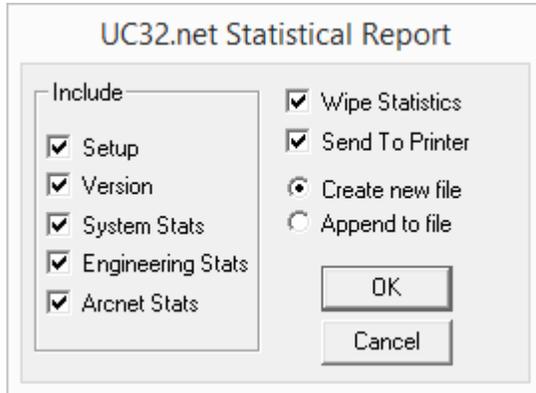
User ID

This contains the User ID.

Network Information

These parameters tell the Controller how many Field Controllers Local Globals, Wide Input Globals, Wide Output Globals and Comms Controllers it must interact with on both its Fieldbus and the "Unet".

STATISTICS

Note: This is only available in Upload Mode.

When this instruction is run as part of a batch, a report is generated that is stored in a file and may also be printed out on the current printer. The report is stored as a `.csv` (comma-separated value) file. It is saved in the `\UnitronUC32\LAN\Archive` directory. The filename used for the report is displayed in the Report Log when the Instruction is run.

Setup

If the Setup box is ticked, the Setup statistics will appear in the report. For example:

Sitename	Local Network
ID	#001
	Rooftop
Time	11:53 27/06/00
Advanced Setup	
Composed	10:30 27/06/00
User ID	0
UC16s	1
Local Globals	0
Wide In Globals	0
Wide Out Globals	0
UC32.nets	0

Version

If the Version box is ticked, the Comms Controller's version number will appear in the report. For example:

Version	UC32.net 3.6.7b

System Statistics

If the System Statistics box is ticked, System Statistics will appear in the report. For example:

System Stats	
Last Reset	11:59 10/6/00
No. Alarms	0
Last Power Down	11:20 09/6/00
Last Power Up	11:50 10/6/00

Engineering Statistics

If the Engineering Statistics box is ticked, the Engineering statistics will appear in the report. For example:

Engine. Stats	
No. Resets	0
Subnet Errors	0
UC32.net Servicing	X
Port Check	X
Setup Check	X
Locals Check	X
Wide In Check	X
Wide Out Check	X
Time Sched Check	X
Day Save Check	X
Alm Level Check	X

Unet Statistics

The Unet statistics will appear in the report. For example:

Unet Stats	
Total Reconfig	0
Local Reconfig	0
Excessive Nacks	0
Status	0

Wipe Statistics

If this checkbox is ticked, the Statistics will be wiped from the Controller memory after saving/printing.

Send to Printer

If this box is checked, the report will be printed out on the current printer.

If this box is cleared, the report will not be printed.

Create File

If this checkbox is ticked, the statistics will be saved to a new file

Append to file

If this checkbox is ticked, the statistics will be added to an existing file

ALARM STRINGS

Alarm strings for Modems, Printer and PC can be included in the Instructions batch. They all have the same configurable parameters:

Modem Strings

Modem alarm strings are used to configure a modem that is directly connected to a Comms Controller. The strings, which are used to signal modem activity, are configured using the **Cylon® Dial-Out Configuration** program. The strings that can be configured are the Password string, the Initialisation string, the Dial out string, the Disconnect string and the Connect string.

Printer Strings

This allows you to download strings that are used to customize the format of alarm messages. Thirteen strings are available, and these can be edited using the **Cylon® Dial-Out Configuration** program.

String Range

If Default Is selected then all of the Comms Controller's Alarm Strings will be transferred.

If Selected is chosen then only the Alarm strings in the specified range will be transferred. Values between 1 and 100 may be entered.

Wipe Memory

If this checkbox is ticked the previous modem strings on the Comms Controller will be wiped before the new strings are downloaded.

ALARMS CONFIGURATION

Note:	The parameters in this dialog can only be edited in Download mode, and only if the Associated file checkbox is **not** ticked.

Clicking on the Alarms Configure button in the Comms Controller Instructions panel box opens the Comms Controller Configure Alarms dialog.

This allows you to filter alarms through different ports, or to send alarms through multiple ports.

File

If Associated Is selected then each Comms Controller's Associated file (see page 13) will be used, and the parameters of the Setup dialog will **not** be editable.

Port Number and Band

Comms Controllers can have up to 3 ports onto which modems can be connected. For each of these ports up to 3 ranges of Alarm priorities can be assigned.

Select each Port Number in turn and for each one set up to 3 different ranges of priorities with values for both Lower Limit and Upper Limit between 1 and 255.

Accept System Alarms

When checked, Alarms reflecting the operation of the **Cylon®** system (in addition to those reflecting the values of points within a Field Controller Strategy) will be processed.

Update File

If this option is checked, then the `config.txt` file on the PC will be kept in sync with the values on the controller.

CONFIGURING THE UC32.NET PORTS

Clicking on the Port Configure button in the Comms Controller Instruction panel opens the Comms Controller Port Setup dialog box.
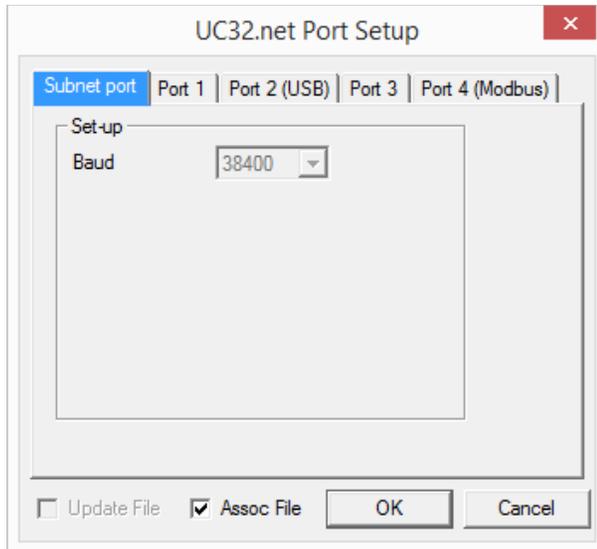

Comms Controller Ports can be configured through this dialog, but are more normally configured in **CXpro^{HD}**. The parameters are identical to the equivalent dialog in **CXpro^{HD}** – see *MAN0133 CXpro^{HD} manual*, for more detail.

If Assoc File is selected then each Comms Controller's Associated file (see page 13) will be used, and the parameters of this dialog will **not** be editable.

If the Update File checkbox is ticked, then the config.txt file on the PC will be kept in sync with the values on the controller.

TIME

Clicking on the Time button in the Comms Controller Instruction panel opens the Comms Controller Curr_Time dialog.
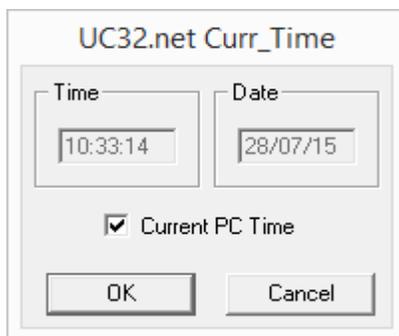
If the Current PC Time checkbox is ticked, the current time set on the Supervisory PC will be sent. If it is cleared, then values can be entered for the Time and Date.

DAYLIGHT SAVING

Clicking on the Daylight Saving... button in the Comms Controller Instruction panel opens the Comms Controller Daylight Saving dialog.
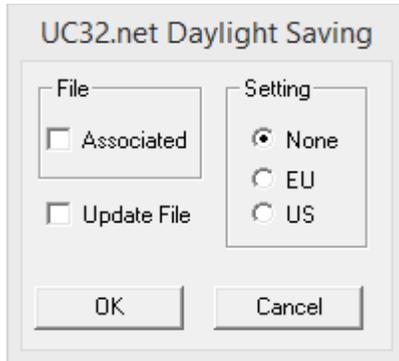
File

If Associated is selected then each Comms Controller's Associated file (see page 13) will be used, and other parameters in this dialog will **not** be editable.

Setting

None: The set time will be used, and will not be adjusted automatically at different times of the year.

EU: Time will be adjusted according to EU daylight-savings algorithm.

US: Time will be adjusted according to US daylight-savings algorithm.

Update File

If this option is checked, then the config.txt file on the PC will be kept in sync with the values on the controller.
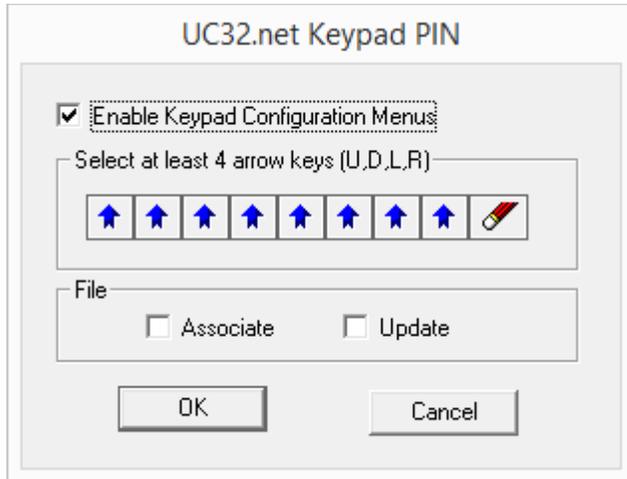
SITE NUMBER

Clicking on the Site No... button in the Comms Controller Instruction panel opens the Comms Controller Site Number dialog.

Site numbers are automatically assigned in **CXpro^{HD}** but can be edited here if required.

KEYPAD PIN

Clicking on the Keypad PIN... **button** in the Comms Controller Instruction panel opens the Comms Controller Keypad PIN dialog.

File

If Associate is selected then each Comms Controller's Associated file (see page 13) will be used, and other parameters in this dialog will **not** be editable.

If Update is selected, then the config.txt file on the PC will be kept in sync with the values on the controller.

Enable Keypad Configuration Menu

If this is ticked, then the Configuration option on the keypad will be enabled – users will be able to configure the Comms Controller from the keypad.

### Select at least 4 arrow keys

Clicking in each of the boxes in this section of the dialog cycles through an up arrow, down arrow, left arrow or right arrow. When downloaded to the controller, the sequence of arrows will be the sequence required as a password to enter the Configuration Menu on the keypad.

4   Field Controller Instructions

INTRODUCTION

Instructions are set up for the Field Controllers on the Site using either the UC32 Instructions panel or the UC16 Instructions panel. To open the relevant panel, select either UC32 ... or UC16... from the Instructions menu or click the .net or UCC4 button in the Toolbar.

The Comms Controller Instructions panel allows access to different Instructions depending on the load direction (Download or Upload):
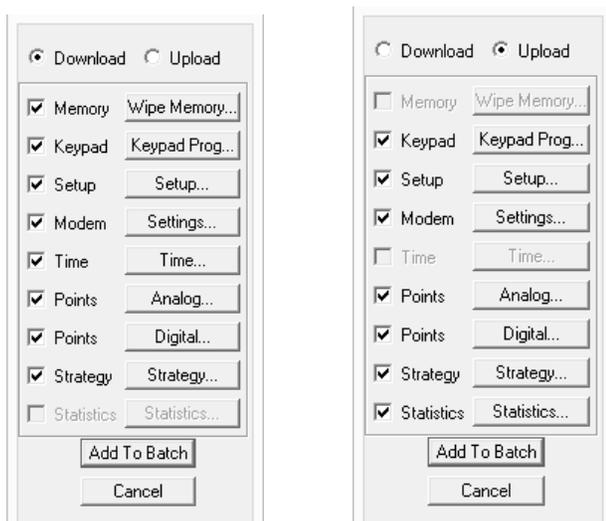
When Download direction is selected, the Statistics Instruction is not available.

When Upload direction is selected, the Statistics Instruction is available, but the Memory, and Time Instructions are not.

BUTTONS AND CHECKBOXES

Download / Upload radio buttons

Selects whether information will be downloaded from the PC to the controllers or uploaded from the controllers to the Supervisory PC.

Instruction Checkboxes

If the checkbox beside an Instruction is ticked, then that instruction can be added to the Batch.

Instruction Buttons

Clicking the button for an Instruction allows that Instruction to be configured.

Add To Batch

Clicking this button adds the configuration of the Instructions panel – the selected Instructions and the parameters set for each one – to the Batch that will be run when Run/Complete Batch is selected from the Actions menu (see

Running Instructions on page 17).

Cancel

Closes the panel without altering the Batch.

INSTRUCTIONS

MEMORY WIPE

To wipe the Field Controller's memory when a batch is run before any of the other instructions in the batch are downloaded, tick the Wipe Memory checkbox on the Field Controller Instruction panel.

No configuration is required for UC16 Memory Wipe. If the UC16 Instructions panel is being used, clicking the Wipe Memory button displays an information box:
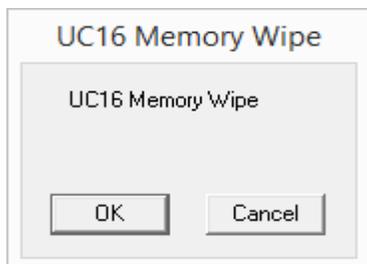
Press OK or Cancel to close the box.

If the UC32 panel is being used, clicking the Wipe Memory button displays a dialog box allowing parts of the Field Controller's memory to be wiped:
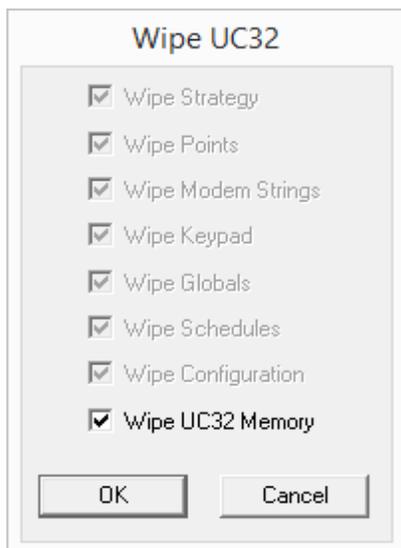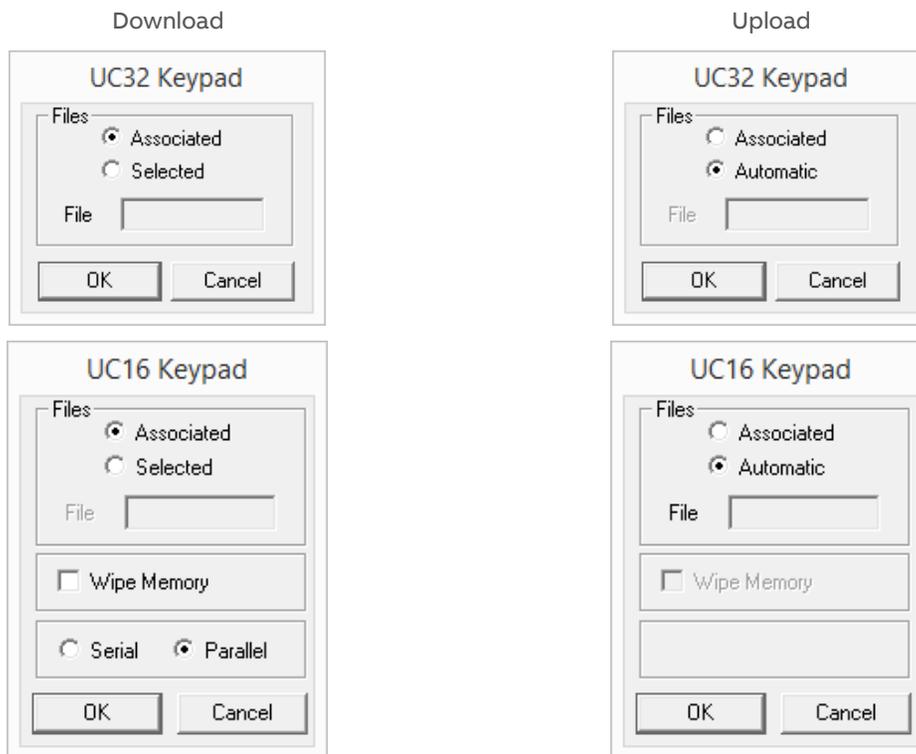
Selecting Wipe UC32 Memory will automatically select all parts of the memory to be wiped. Clearing this checkbox will allow any of the other checkboxes to be cleared.

Press OK to save the current configuration to the batch, or Cancel to close the box without changing the Wipe Memory configuration.

KEYPAD PROGRAM

Clicking on the Keypad Program button in the Comms Controller Instructions dialog box opens the Keypad dialog.

Download   Upload

Files

If Associated is selected then each Field Controller's Associated file (see page 13) will be used.

If Download is set as the Batch direction, then there will be a Selected option. If Upload is selected there will be an Automatic option.

If Selected is chosen during Download, then the Open dialog will be displayed to allow you to select a specific Keypad Program file to send to all Field Controllers on the Site. This will have the extension `.kp4`.

The File box will show the name of the selected file.

If Automatic is selected during Upload, then the Keypad information received from the **Cylon®** Site will be stored in files automatically created by the **Site Organizer**.

Wipe Memory (UC16 only)

This option is disabled if Upload direction is selected

If this box is selected, the keypad program on each Field Controller will be wiped before the new keypad program is downloaded.

Serial / Parallel (UC16 only)

This sets whether a Parallel or Serial keypad program will be sent.

SETUP

To include the controller Setup information in the instructions batch, tick the Setup checkbox on the Field Controller Instructions panel.

The controller Setup is basic configuration information stored in a controller, indicating how many Strategy modules it should expect to service, how quickly it should service them etc., along with some information useful to an Engineer configuring the Site.

Clicking on the Setup button in the Field Controller Instructions dialog box opens the Setup dialog.

Note:	The parameters in this dialog can only be edited in Download mode, and only if the Associated file checkbox is **not** ticked.

The controller "Setup" is basic configuration that is stored on the controller.

File

If Associated is selected then each Comms Controller's Associated file (see page 13) will be used, and the parameters of the Setup dialog will **not** be editable.

No. Modules

This should be set to the number of modules used in the Field Controller's Strategy.

Composed

This is a field where you can record the Time and Date at which this Setup information was originally entered.

Last Modified (UC32 only)

This is a field where you can record the Time and Date at which this Setup information was last modified.

User ID

A number can be entered here to identify the engineer who composed the Setup block.

User Name (UC32 only)

An arbitrary string can be entered here to identify the engineer who composed the Setup block.

Strategy ID

A number can be entered here to identify the Strategy used by the Field Controller. This can be used to give an indication of the function that the Controller will perform. The number entered here should match the ID defined in **CXpro**^{HD} for the Strategy held by the Controller.

Drawing Ref (UC32 only)

An arbitrary string can be entered here to identify the Strategy drawing used in **CXpro**^{HD} when creating the strategy in the Controller.

Min Service Time

The number entered here defines the interval, in seconds, at which the Controller will service the Strategy. This feature is useful for time-sensitive operations.

Time Synch Wait After Reset

This is the time (in seconds) after a reset for which the Field Controller will wait for a time synchronizing communication from the Comms Controller before starting to service the Strategy. If the Field Controller receives a time synchronizing pulse, it will start to service the Strategy immediately. If not, the Field Controller will wait for the number of seconds specified here to elapse and then start servicing the Strategy.

MODEM SETTINGS

Clicking on the Settings button beside Modems in the Field Controller Instructions dialog box opens the Modem dialog.

Files

If Associated is selected then each Field Controller's Associated file (see page 13) will be used.

Wipe Memory

This option is disabled if Upload direction is selected

If this box is selected, the keypad program on each Field Controller will be wiped before the new keypad program is downloaded.

TIME

Clicking on the Time button in the Field Controller Instruction panel opens the Field Controller Curr_Time dialog.
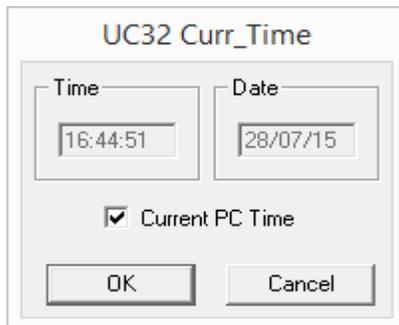
If the Current PC Time checkbox is ticked, the current time set on the Supervisory PC will be sent. If it is cleared, then values can be entered for the Time and Date.

POINTS – ANALOG… AND DIGITAL…

The **Site Organizer** can set the values of points in a Field Controller (download), or record their current values (upload). The Analog Points dialog defines the points within the Field Controller whose values are to be set or recorded, and the file where the values are stored.

The relevant Points dialog is opened by pressing either the Analog… button or the Digital… button on the Field Controller Instructions panel.
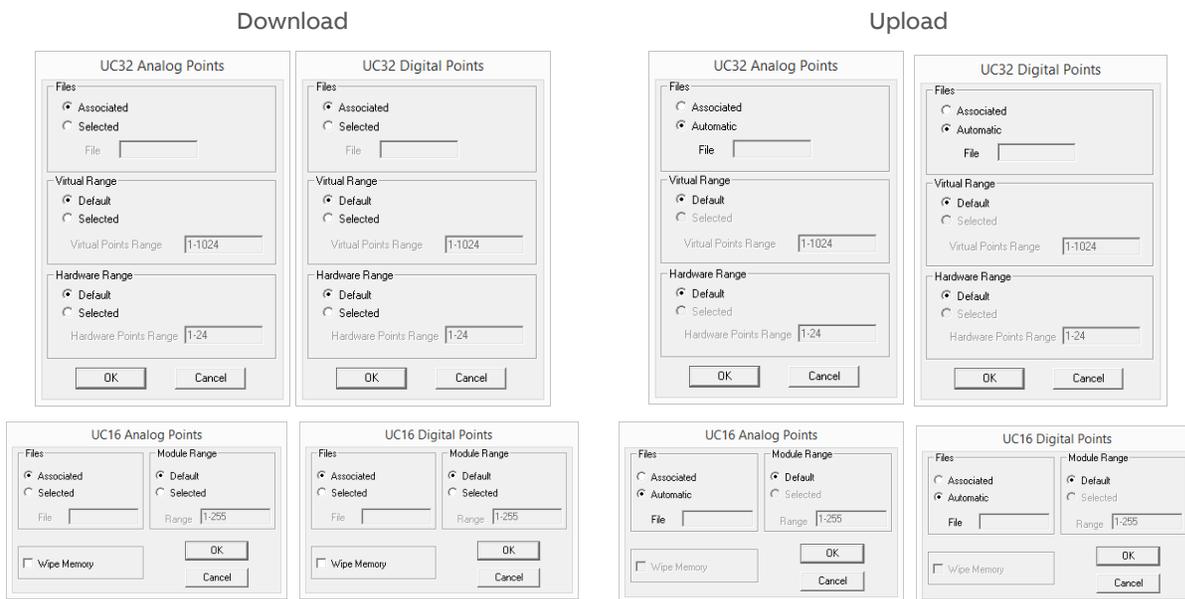
Files

If Associated is selected then each Field Controller's Associated file (see page 13) will be used.

If Download is set as the Batch direction, then there will be a Selected option. If Upload is selected there will be an Automatic option.

If Selected is chosen during Download, then the Open dialog will be displayed to allow you to select a specific Strategy file to send to all Field Controllers on the Site. This will have the extension `.s32` (UC32) or `.stg` (UC16).

The File box will show the name of the selected file.

If Automatic is selected during Upload, then the Points information received from the **Cylon®** Site will be stored in files automatically created by the **Site Organizer**.

Module Range (UC16 only)

If Default is selected, then all of the analog points will be included.

If Selected is chosen, then only the points (of the specified type) that are specified in the Range field will be included.

**Note:** It is possible to specify a range of points such as 1,12,16-20,44,

Virtual Range / Hardware Range (UC32 only)

In UC32 Field Controllers the points to be affected by this procedure are defined in the Hardware Range and Virtual Range sections of the relevant Points dialog. Two ranges must be defined, because UC32 controllers can have both I/O (hardware) points and Strategy (virtual) points numbered between 1 and 24 (hardware points can be anywhere in the range 1-24, and virtual points can be anywhere in the range 1-1024).

In each case, if Default is selected, then all of the points of that type will be included. If Selected is chosen, then only the points of that type that are specified in the relevant Range field will be included.

STRATEGY

Clicking on the Strategy... button in the Field Controller Instructions dialog box opens the Strategy dialog.
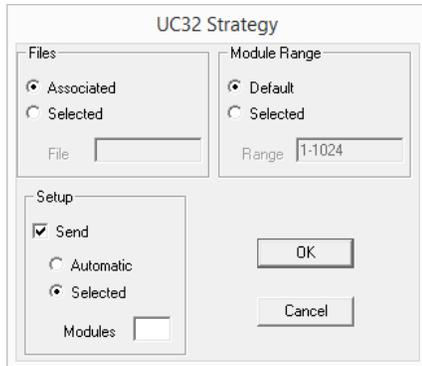
Files

If Associated is selected then each Field Controller's Associated file (see page 13) will be used.

If Download is set as the Batch direction, then there will be a Selected option. If Upload is selected there will be an Automatic option.

If Selected is chosen during Download, then the Open dialog will be displayed to allow you to select a specific file to send to all Field Controllers on the Site. This will have the extension `.s32` (UC32) or `.stg` (UC16).

The File box will show the name of the selected file.

If Automatic is selected during Upload, then the information received from the **Cylon®** Site will be stored in files automatically created by the **Site Organizer**.

Module Range

If Default is selected, then all of the Strategy modules will be included.

If Selected is chosen, then only the modules specified in the Range field will be included.

> **Note:** It is possible to specify a range of points such as `1,12,16-20,44,`

Setup

The controller Setup is basic configuration information stored in a controller, indicating how many Strategy modules it should expect to service, how quickly it should service them etc., along with some information useful to an Engineer configuring the Site.

If Send is checked, the number of modules included in the Setup will be included in the Batch and the Automatic / Selected radio button becomes editable.

If Automatic is chosen then the number of modules included in the Setup is based on the number of modules in the Strategy.

If Selected is chosen, then the number of modules included in the Setup is set in the Modules field.

STATISTICS

When this instruction is run as part of a batch, a report is generated that is stored in a file and may also be printed out on the current printer. The report is stored as a `.csv` (comma-separated value) file. It is saved in the `\UnitronUC32\LAN\Archive` directory. The filename used for the report is displayed in the Report Log when the Instruction is run.

Setup

If this checkbox is ticked, the Setup statistics will appear in the report. This performs a similar function to the Get Setup command in **CXpro^HD**. Information about the Site and controller is displayed. For example:

Sitename	Local Network
ID	#001#01
UCC4	Rooftop
UCxx	AHU 1
Time	12:05 20/06/00
Advanced Setup	
No. Modules	9
Composed	11:34 20/06/00
User ID	P
Strat ID	0
Min Service	0
Time Synch	0

Version

If this checkbox is ticked, the Version statistics will appear in the report. This performs a similar function to the Get Version command in **CXpro^HD**. The version number of the Field Controller is displayed. For example:

Version	UC8 5.2.7

System Stats

If this checkbox is ticked, the System statistics will appear in the report. This performs a similar function to the Get System Statistics command in **CXpro^HD**.

System Stats	
Last Reset	11:3420/06/00
Setup Ok	X
Serviced Blks	9
Bad Blks	0
First Bad Blk	0
Last Bad Blk	0

Engineering Stats

If this checkbox is ticked, the Engineering statistics will appear in the report. This performs a similar function to the Get Engineering Statistics command in **CXpro^HD**. For example:

Engine. Stats	
Watchdog	X
RTC	O
EEPROM	O
Bad Blks	0
Resets	0
Crash Detects	0
Comms Chk Errs	0

Manual Overides

If this checkbox is ticked, information will be included in the report about the number of manual overrides that have been carried out through the use of **CXpro**^{HD}. For example:

Manual Overides	
Pts 1-8	OOOOOOOO
Pts 9-16	XOOOOOOO

Hand Overides

If this checkbox is ticked, the Hand Overides statistics will appear in the report. This lists the number of changes that have been made to the output of a H.O.A. (Hand Off Auto) through the use of the output switches

Hand Overides	
Pts 9-16	OOOOOOOO

Status in Subnet

If this checkbox is ticked, the Fieldbus (subnet) statistics for the Field Controller will appear in the report. This command performs a similar function to the Get Subnet Status command in **CXpro**^{HD}. The command displays the status of the selected Field controller within its Fieldbus. For example

Status	Servicing?
Online	Not Servicing

Send to Printer

If this box is checked, the report will be printed out on the current printer.

If it is not checked, the report will not be printed.

Create new file

If this checkbox is ticked, the statistics will be saved to a new file.

Append to file

If this checkbox is ticked, the statistics will be added to an existing file.

5   Firmware Upgrade Instructions

If a BACnet Site is selected, it is possible to update the firmware of the Site's Field Controllers in a batch. To set up a Firmware upgrade batch:

In the Select menu set the Site and Targets.

In the Instructions menu select Firmware Upgrade…

The Firmware Upgrade dialog will open:
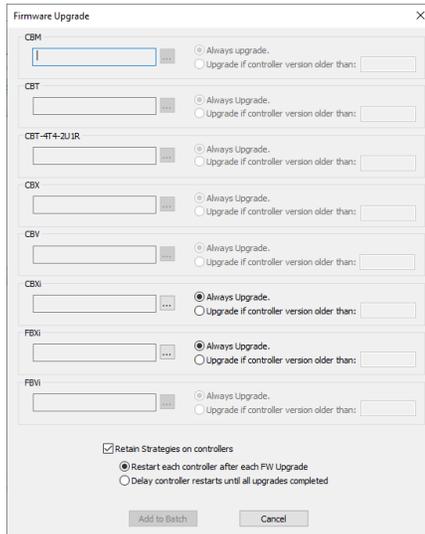
Select the `.flx` files (for **FLXeon** controllers) or `.bin` files (for all other controllers) that represent the required firmware.

Select whether all controllers will be upgraded (Always Upgrade) or just specific versions (Upgrade if controller version older than:)

As firmware upgrade requires the controller to be wiped, specify if the Strategy should be backed up before the upgrade and restored afterwards by checking the Retain Strategy on controller box.

If Retain Strategy on controller is selected, it will be possible to select whether each controller will restart as soon as its firmware is upgraded (Restart each controller after each FW upgrade), or if all controllers will be upgraded before any of them restart (Delay controller restarts until all upgrades completed). This second option will significantly reduce the amount of network traffic, saving time for the overall process.

When the dialog is complete, click Add to Batch to set the Firmware Upgrade to be carried out when Actions > Run/Complete Batch is next selected, and to close the dialog.

To close the dialog without adding this Firmware Upgrade to the batch, click Cancel.

| Note:	When the firmware upgrade is run (i.e. when Actions > Run/Complete Batch is next selected) the Instruction window will list any firmware upgrades as they happen. If Restart each controller after each FW upgrade was selected, then the setup block sent with each restored Strategy will restart the Controller. However, if Delay controller restarts until all upgrades completed is selected, then the setup in each strategy will be set to 0 blocks and an extra Setup command will be sent at the end of the Firmware Upgrade process as shown below:

—
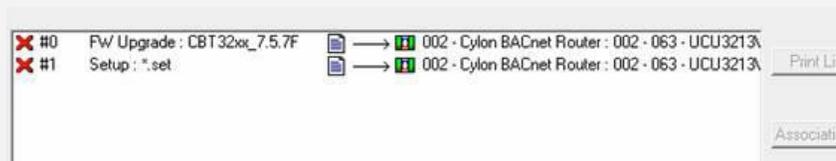
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