
SL2100

PC Programming Manual

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PC Programming, referred to as PCPro, is an application used to manage the SL2100 system. PCPro is rich with features to help users more easily manage a chassis when compared to handset programming.

The user can perform the following when using PCPro:

- Upload/Download settings between PCPro and a chassis.
- Save settings to files that can be archived for later use.
- Program settings grouped by their relationship via standard screens.
- Generate reports that can be used to monitor settings.
- Automatically update chassis firmware remotely.
- Export settings to files for later use.
- Capture low level messages to problem solve through the Debug Terminal.



Installation

Chapter 2

SECTION 1 SYSTEM REQUIREMENTS

The process of installing PCPro is straight-forward. Just run the installation program and follow the instructions. [Table 2-1 System Requirements](#) lists the minimum system requirements necessary for install PCPro on your computer.

Table 2-1 System Requirements

System:	Minimum Requirements
CPU	CPU and Memory are dependent on the Microsoft Operating System environment used.
Memory	
OS	Vista, Windows 7 (32/64bit), Windows 8/8.1
Other	Microsoft Internet Explorer 7.0/8.0/9.0/10.0
Communication port	LAN, Modem or ISDN
Disk Space	1GB for PCPro (minimum)
TCP Port	PCPro must have TCP port 8000 open between the chassis and the host PC. Communications between PCPro and the chassis occurs on this port when uploading / downloading via LAN. The PCPro TCP port is 8000 at default, but this can be changed through the Administration>WebPro Settings section of WebPro using PRG 90-54-02. PRG 90-54-02 is not accessible from telephone programming or PCPro. The port to be used for debug should be defined in 10-20-06.

SECTION 2 DEFAULT PCPro ACCOUNTS

When installing PCPro for the first time, the installation program creates a set of default PCPro accounts. The accounts with the user name and password to access these accounts are provided in [Table 2-2 Default PCPro Accounts](#).

Table 2-2 Default PCPro Accounts

User Name	Password	Access Level
tech	12345678	Installer Mode (IN)

Table 2-2 Default PCPro Accounts (Continued)

User Name	Password	Access Level
ADMIN1	0000	System Administrator Mode 1 (SA)
ADMIN2	9999	System Administrator Mode 2 (SB)






NOTE

An install/uninstall does not remove or modify any existing PCPro Accounts, or Connection Accounts.

In addition, the installation program will create the following default folders:

Table 2-3 Default Folders

Folder Name/Icon	Location	Description
My Databases 	<install dir>\databases	Default folder where PCPro databases are saved.
DebugTerm 	<install dir>\logfiles	Default folder where PCPro Debug Terminal log files are saved.
Reports 	<install dir>\reports	Default folder where PCPro reports are saved.
exports	<install dir>\exports	Default folder where PCPro exported files are saved.



NOTE

An install/uninstall does not result in the folder or any files in the folder being deleted.

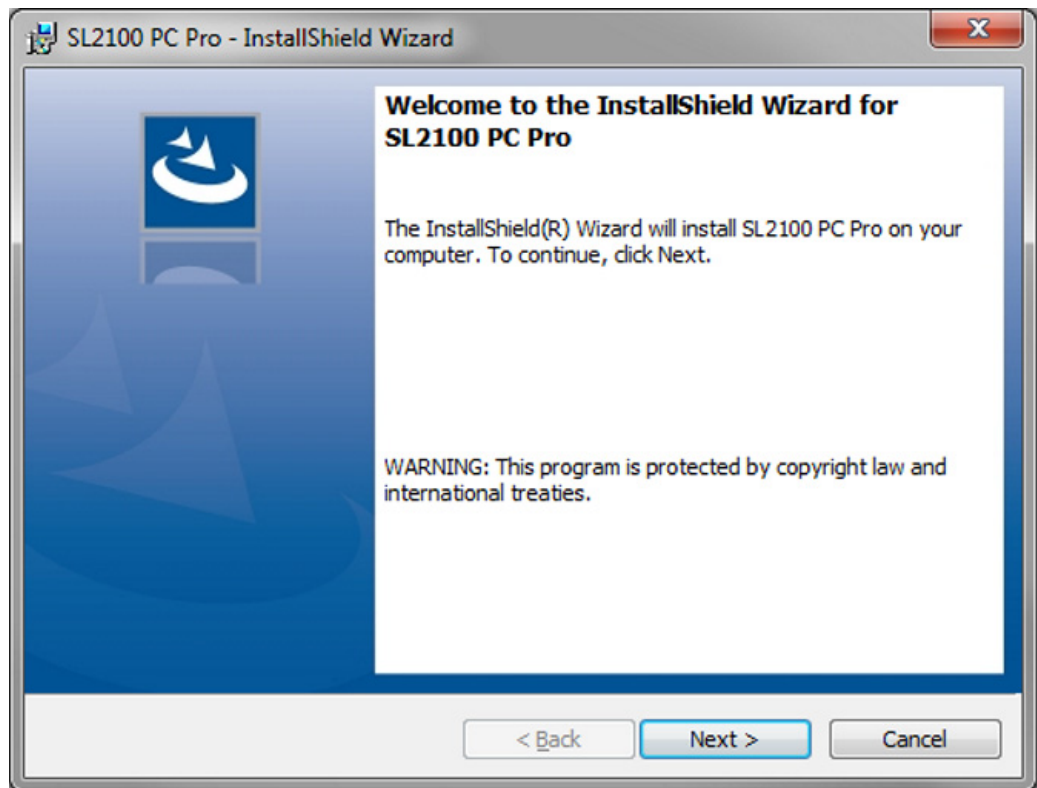
SECTION 3 SOFTWARE INSTALLATION

The software can be installed from the application CD, provided with the chassis or downloaded from the web.

1. Launch the installer.
2. When the installer launches, the InstallShield Wizard Welcome screen is displayed. Press **Next>**.

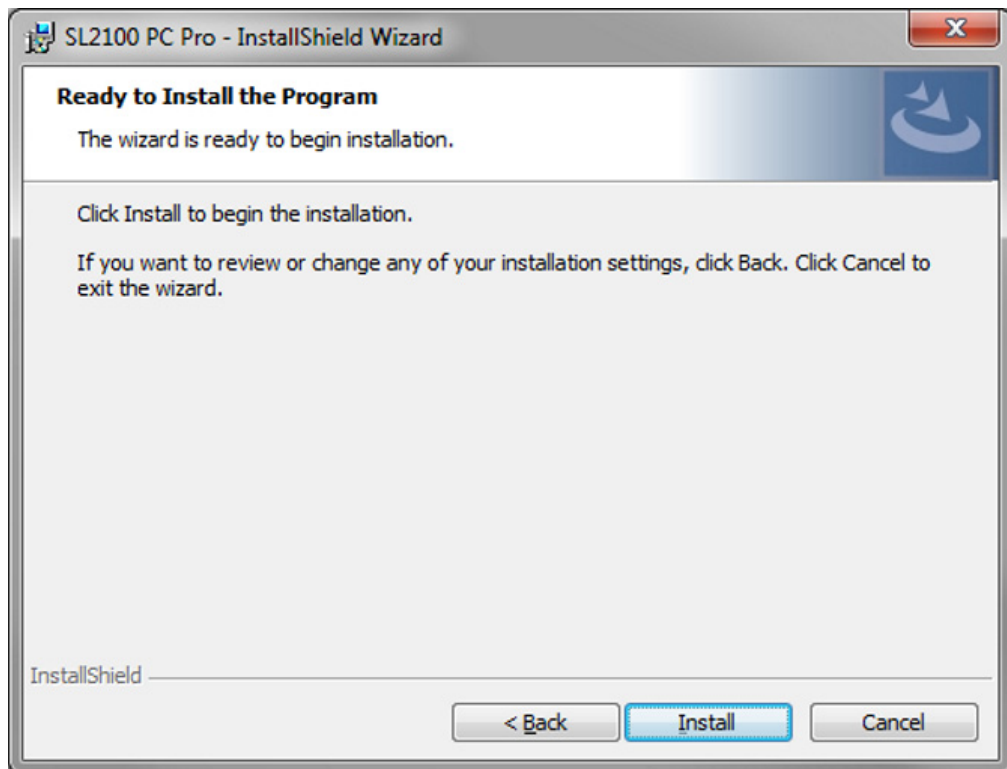
If you do not want to continue, click **Cancel** to abort the installation and exit the software.

Figure 2-1 InstallShield Wizard Welcome Screen



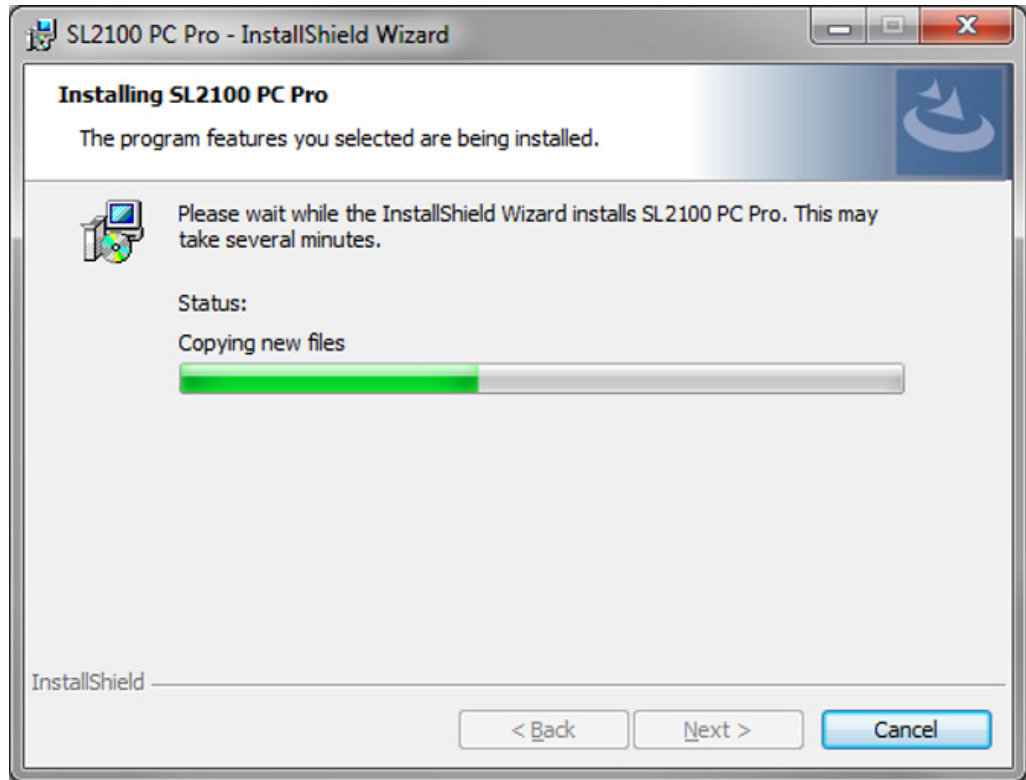
- To install the program, click **Install**.
If you wish to return to the previous screen, click **<Back**.
If you do not want to continue, click **Cancel** to abort the installation and exit the software.

Figure 2-2 InstallShield Wizard Begin Installation



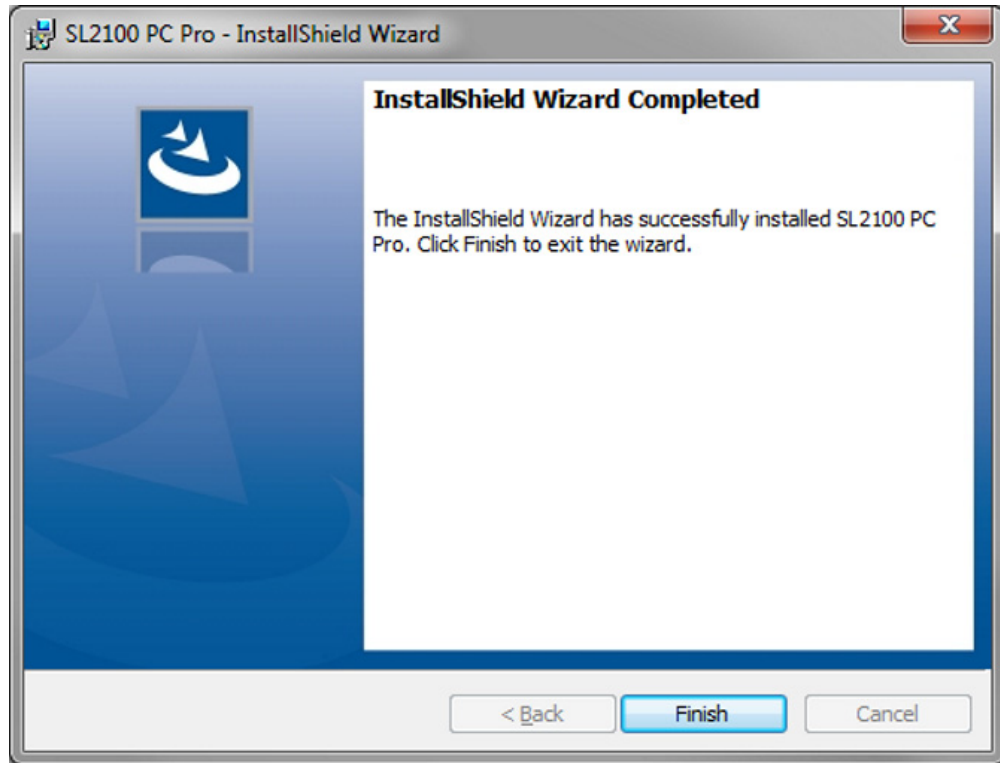
4. The program installs. [Figure 2-3 InstallShield Wizard Installation Progress](#) shows the screen you will see that indicates the progress of the installation.
 If you wish to return to the previous screen, click **<Back**.
 If you do not want to continue, click **Cancel** to abort the installation and exit the software.

Figure 2-3 InstallShield Wizard Installation Progress



5. When the installation is completed, [Figure 2-4 InstallShield Wizard Finish Installation](#) is displayed. Click **Finish**.

Figure 2-4 InstallShield Wizard Finish Installation

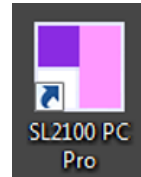


SECTION 4 LAUNCHING THE APPLICATION SOFTWARE

Once the application software has successfully installed you can launch the application in one of two ways:

- ❑ Click the PCPro shortcut icon that was placed on your desktop during installation.

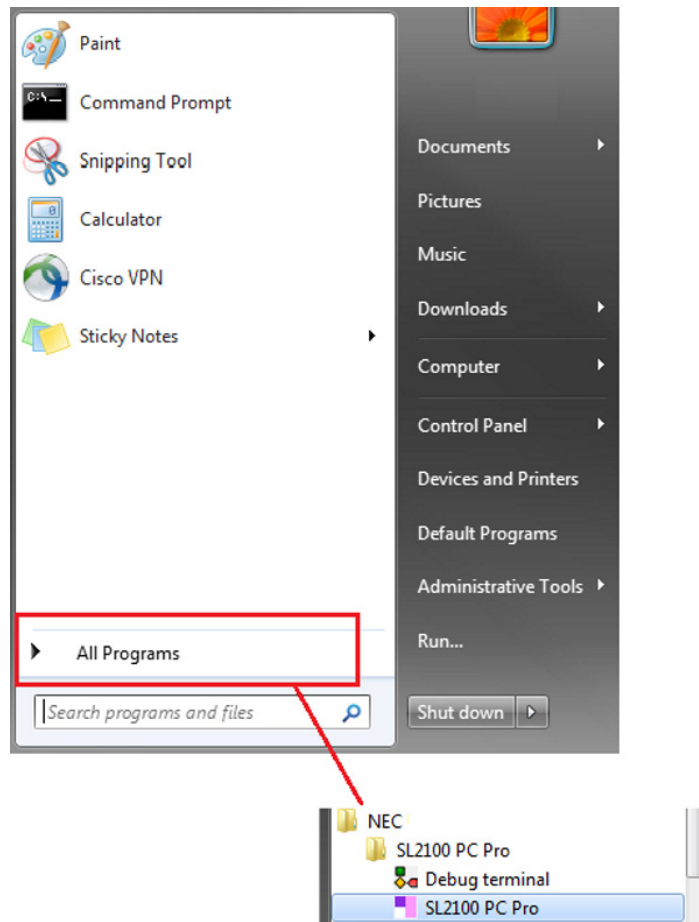
Figure 2-5 SL2100 PCPro Desktop Shortcut



-- OR --

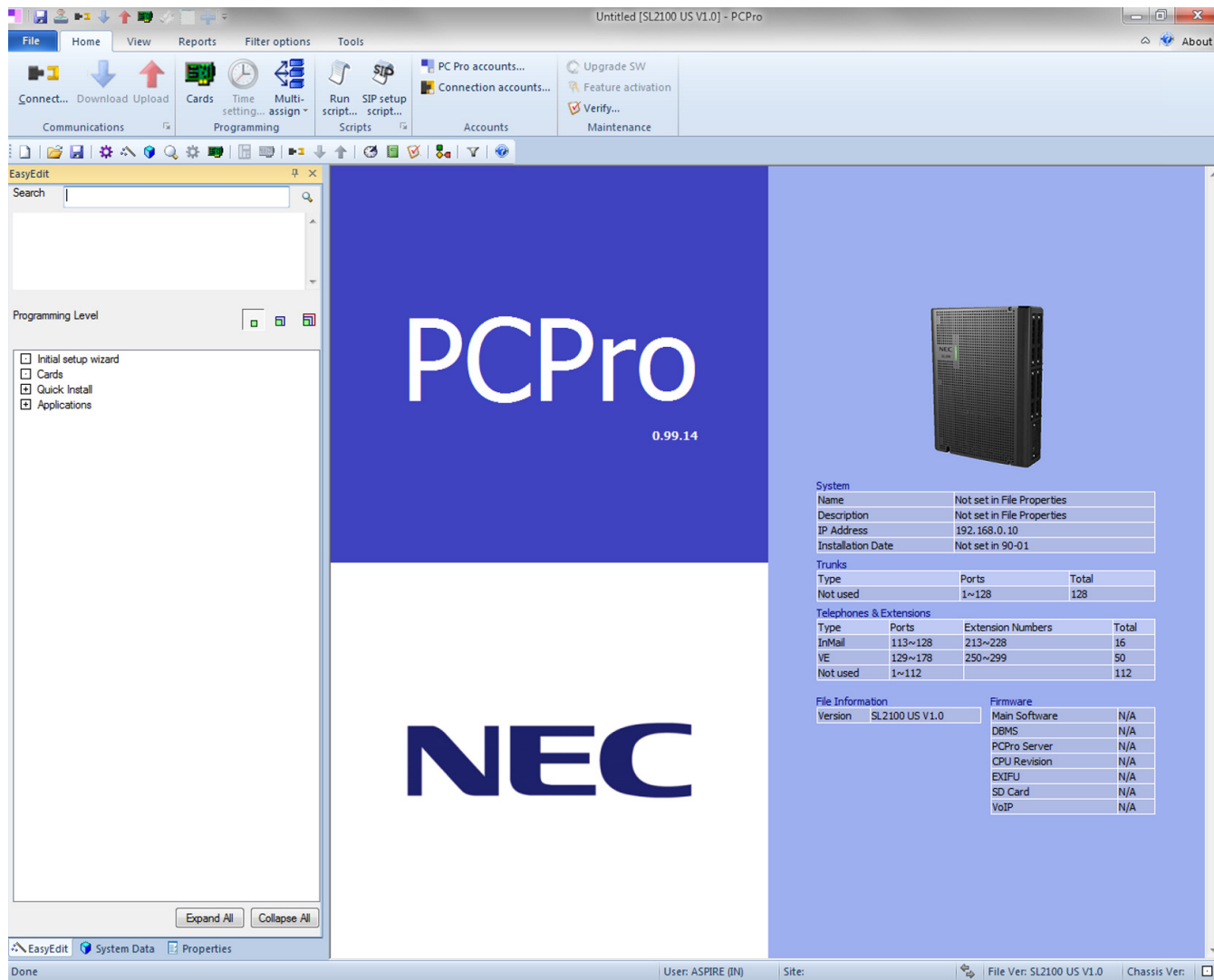
- ❑ Select the program by clicking **Start > All Programs > NEC > SL2100 PCPro > SL2100 PCPro**.

Figure 2-6 InstallShield Wizard Launch Software



The PCPro Welcome screen is displayed.

Figure 2-7 PCPro Main Menu



Application Layout

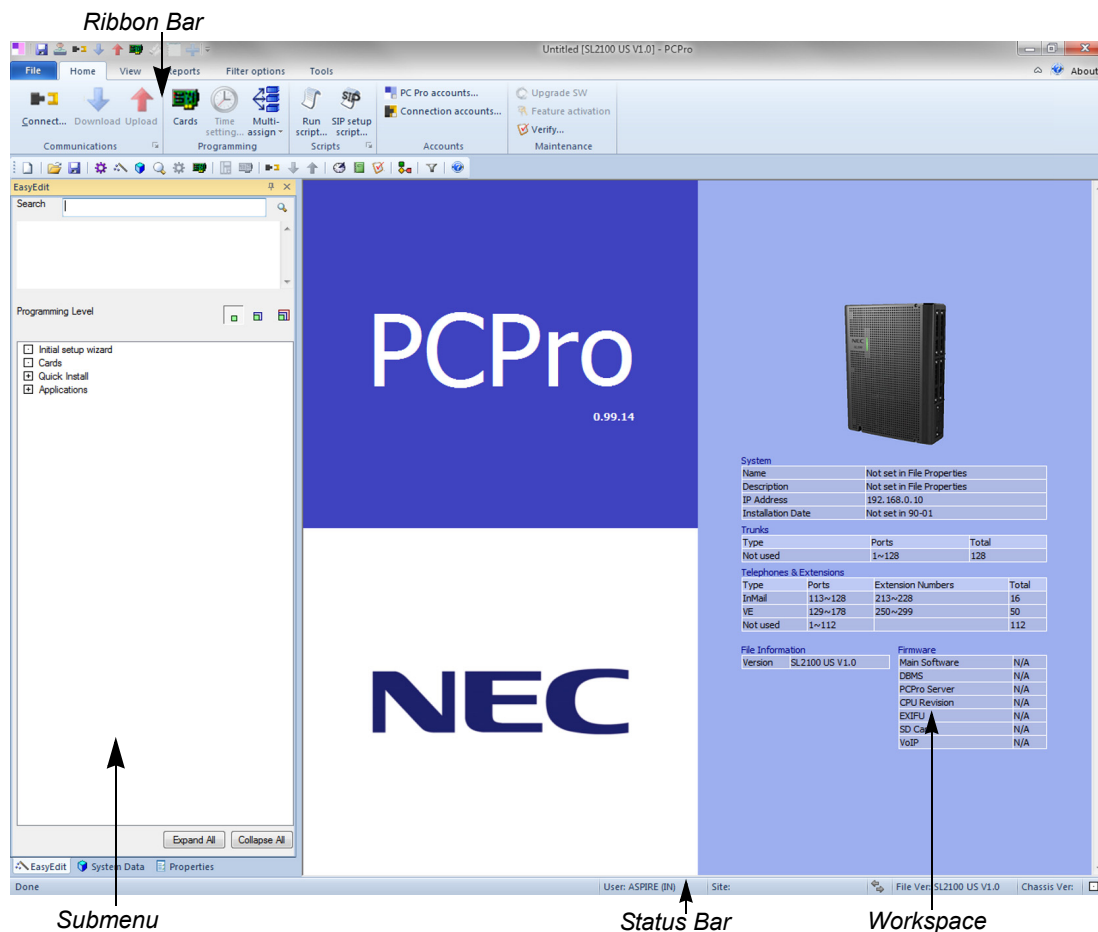
Chapter 3

SECTION 1 INTRODUCTION

The programming section of PCPro provides methods to view and edit values associated with a chassis configuration. Most programming is done using two different views: Standard and System Data. These methods can be accessed through the menu item **Programming**. Accessing these items updates the applications Sub-menu and Workspace areas. The Status bar gives a status indication of various functions related to PCPro (e.g., connection status, version information).

The general PCPro application layout is shown in [Figure 3-1 PCPro Application Layout](#).

Figure 3-1 PCPro Application Layout



SECTION 2 MENU

The menu displays the list of functions available in PCPro. Some of these commands have images next to them so you can quickly associate the command with the image. The full list of the PCPro menu hierarchy is found in - [Menu and Toolbar Reference](#).

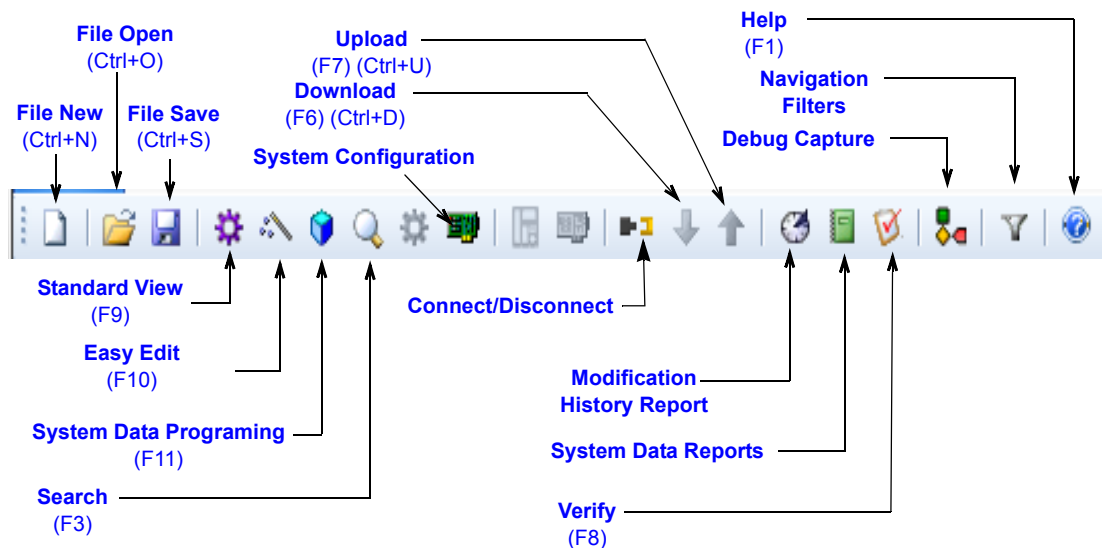
SECTION 3 TOOLBAR

The Toolbar is not opened by default. It is opened by going to **View**. The Toolbar is a group of buttons that map to items in the application menu. The toolbar allows for quick and convenient access to the most common PCPro commands. The items on the toolbar are shown in [Figure 3-2 PCPro Toolbar](#).



The keyboard shortcuts (where applicable) are listed below the toolbar identification in [Figure 3-2 PCPro Toolbar](#).

Figure 3-2 PCPro Toolbar



The full list of the PCPro menu and toolbar hierarchy is found in - [Menu and Toolbar Reference](#).

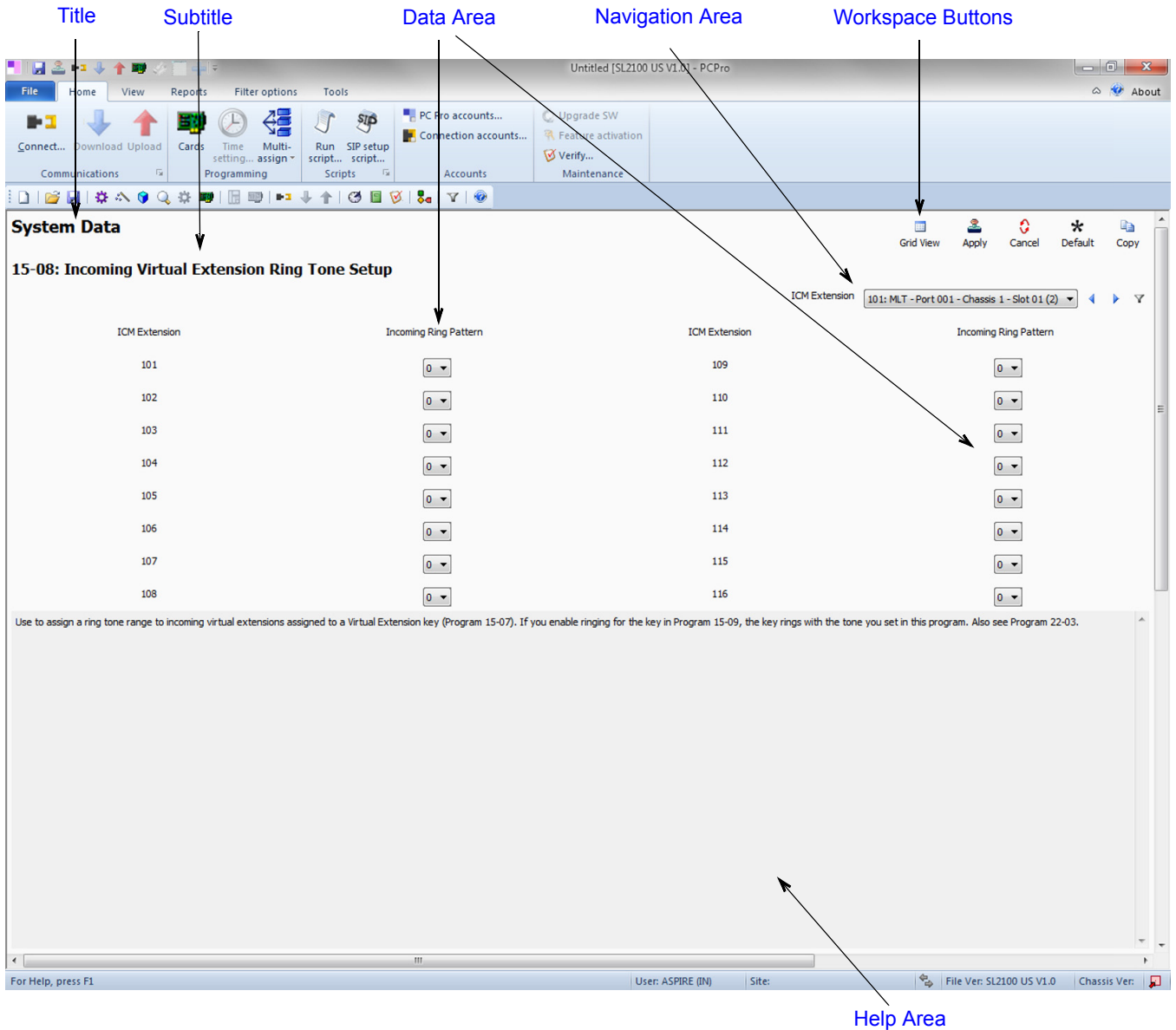
SECTION 4 SUB-MENU AREA

The Sub-menu area is used to navigate through Standard View (refer to - [Standard View](#)) and System Data (refer to - [System Data View](#)). Selections made from the sub-menu area updates the workspace with the related settings.

SECTION 5 WORKSPACE

The Workspace is where all programming occurs. The Workspace consists of various selections made from the Sub-menu Area and the Workspace itself. Common Workspace components are further explained.

Figure 3-3 PCPro Workspace



5.1 Title

Title describes what the current settings in the Workspace are related to. This is associated with the selection made in the Submenu Area. The title is situated at the top left corner of the Workspace.

5.2 Subtitle

Subtitle shows further information about what the you are programming.

5.3 Workspace Buttons

The Workspace buttons area displays different buttons relevant to current programming. These buttons include:

Table 3-1 Workspace Buttons







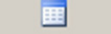
Button	Description
	<p>Apply sets changes recently made on the active screen. Attempting to apply an invalid value prompts a validation message detailing the error. In this case, changes are not applied until the value is made valid.</p>
	<p>Default Cell sets all highlighted cells back to the default program setting.</p>
	<p>Paste applies copied contents into the selected location.</p>
	<p>Copy shows the Copy dialog. Refer to - Copy for more information.</p>
	<p>Default resets the active screen to the system default values.</p>
	<p>Form View is the default view, which displays the values with pull down boxes. Note that this option is not available on all screens.</p>

Table 3-1 Workspace Buttons (Continued)

Button	Description
 <p>Grid View</p>	<p>Grid View is available on screens that have a large number of values that must be entered (e.g., screens with telephone extensions). When Grid View is selected, the screen switches to a table format, allowing you to easily enter a large number of values for a specified extension.</p> <p>For example, if assigning your incoming virtual ring tones for internal extensions, you can switch from Form View to Grid View to list all of the extensions in table format. Note that this option is not available on all screens.</p>

When you do not click the **Apply** button, but do one of the following, the system applies the changes as if you had clicked the **Apply** button.

- Attempt to leave the current screen.
- Attempt to navigate a different item within the system data.
- Use the Previous button.
- Use the Next button.
- Save the active configuration.
- Exit the application. (Note that on some screens, the system prompts you to save the changes or to exit without saving them.)
- Generate a report.

5.4 Navigation Area

To navigate to different items within a program, use the various navigation buttons.

Figure 3-4 PCPro Navigation Buttons

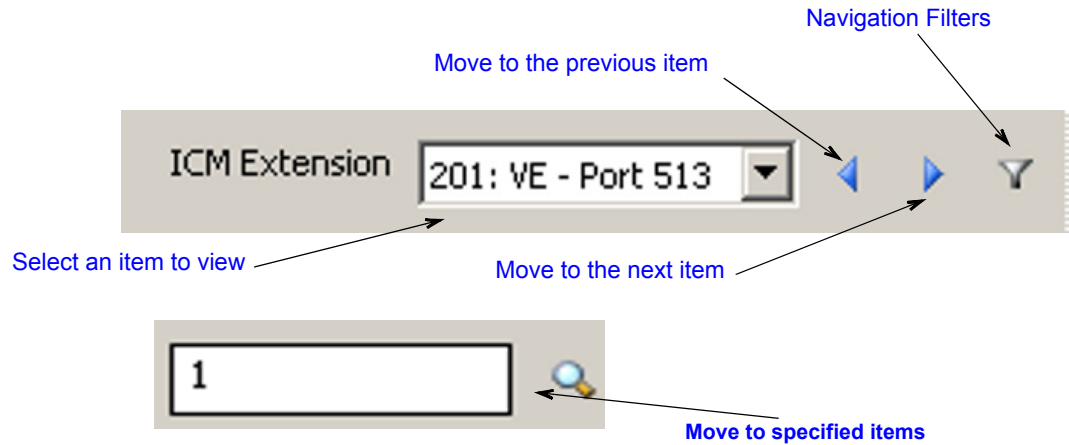





Table 3-2 Navigational Buttons and Drop Down List

Button/Menu	Description
<p>Selections</p> 	<p>Select the item from the drop down list. PCPro automatically moves to the selected item.</p>
<p>Ranges</p> 	<p>Use this button to select a range of values. Type in the value and press the 'Go' button (magnifying glass icon) or press Enter. PCPro displays a range of available items, beginning with the value you typed. For example, if you typed Station Port 300, PCPro displays a range of ports beginning with port 300.</p>
<p>Previous/Next</p> 	<p>Use Previous to show settings of the preceding item. Use Next to show settings of the next item.</p>

5.5 Data Area

The Data Area is where actual system data appears. The contents of this area are specific to what the you are programming. For example, if programming PRG 10-02, this area shows all the data items within 10-02.

The contents of the Data Area are linked to the various system data *views* available. These are:

- Properties
- Easy Edit
- System Data

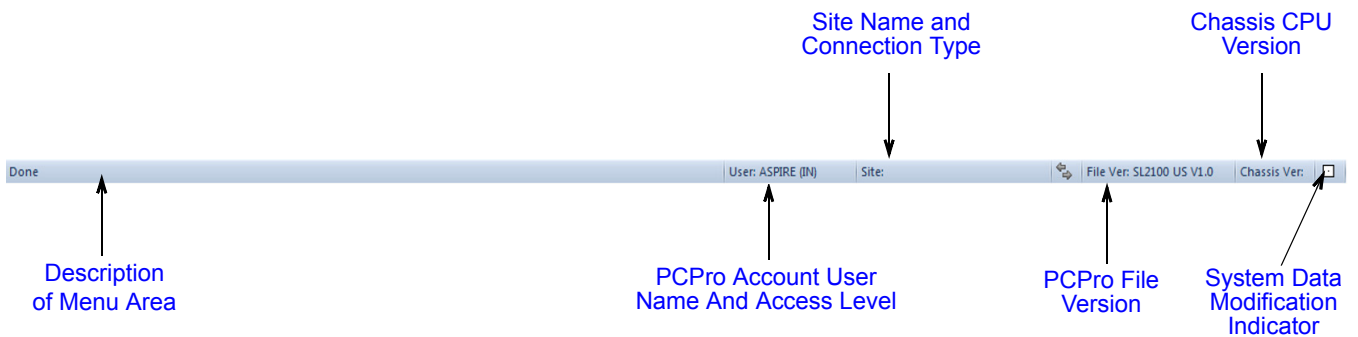
5.6 Help Area

The Help Area shows help text relevant for the data in the Data Area. More extensive help can usually be found in the application online help (F1 key).

5.7 Status Bar

The status bar, which is a horizontal area at the bottom of the Workspace, provides information about the current state of what you are viewing in the Workspace and any other contextual information.

Figure 3-5 PCPro Status Bar





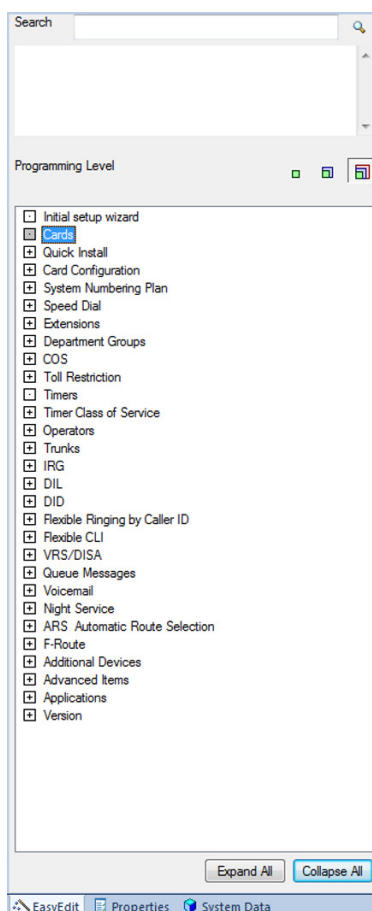
Standard View

Chapter 4

SECTION 1 OVERVIEW

Standard View combines system card assignments and information on installed extensions, trunks as well as system version information.

Figure 4-1 Standard View Submenu



This menu displays by right clicking on the Standard View window.

Window View: Right click to display the flyout, which allows you to select how you want the Standard submenu displayed.



Auto Hide: Clicking this icon hides the Standard submenu list and docks the tabs on the left side of the screen.




Close: Clicking this icon closes the Standard submenu list and tabs.

SECTION 2 STANDARD VIEW SUBMENU

2.1 Accessing Standard View

You can access Standard View submenu area using any of the following methods:

- From the Easy Edit View submenu, select the menu item **Cards**.
-- or --
- Select the toolbar icon (by clicking **View**) depicting the purple cog  .
-- or --
- Press **F9**.

Once selected, the Standard View menu appears in the Programming submenu area. Standard screens are listed alphabetically.

Figure 4-2 Selecting a Standard View Screen



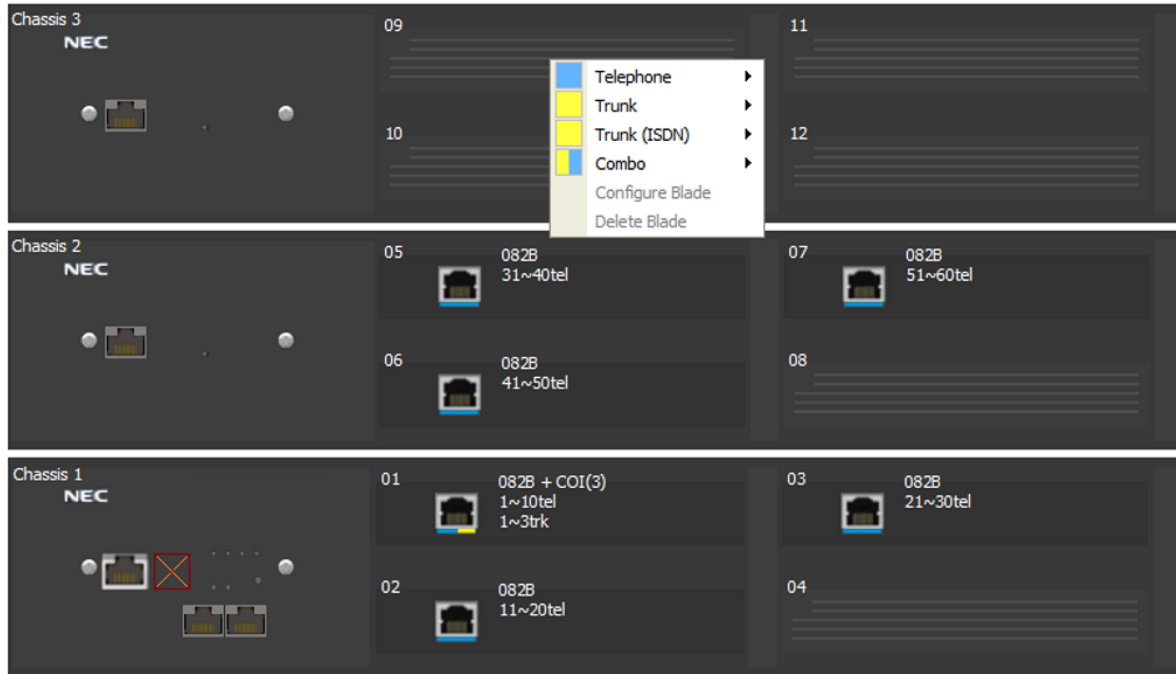
SECTION 3 CARD CONFIGURATION

The screen represents a conceptual model of the chassis and the card packages within it. To obtain blade details download the configuration from the chassis. The card slots display the card types (these are the cards that can be inserted in the selected slot), the telephone/trunk port range (these are the ports used by the card) and firmware version (firmware being used by the blade). By default, all card slots are displayed as white indicating no blade has been installed in that slot.

On this screen, you can right mouse click on the desired slot. A popup menu is displayed indicating the configurable options for that slot. Once you have selected the card that is installed in that slot, the card name is displayed on the front of the slot location.

Refer to [Figure 4-3 Standard View Card Configuration Screen on page 4-3](#) for the layout of the Card Configuration screen.

Figure 4-3 Standard View Card Configuration Screen



CPU MAC: N/A

Version Information	
Type	Version
File Ver	SL2100 US V1.0
Main Software	0.00.84
DBMS	V1.0H
PCPro Server	1.03.0o.pipk
CPU Revision	16
EXIFU	Installed
SD Card	SD-A1
VoIP	Embedded

Trunks			
Type	Ports	Total	
CO	1~3	3	
BRI		0	
PRI		0	
T1		0	
IP		0	
SIP	7~10	4	
H.323		0	
T-Point Loopback		0	
E1		0	
Trk*		0	
Not used	4~6, 11~128	121	





7 ports of 128 are used

Telephones			
Type	Ports	Extension Numbers	Total
MLT	1, 3, 5, 7, 11~18, 21~28, 31~38, 41~48, 51~58	501~544	44
SLT	9~10, 19~20, 29~30, 39~40, 49~50, 59~60		12
IP			0
IP*			0
InMail	113~128	584~599	16
VE	129~178	580~583	50
DSS	2, 4, 6, 8		4
S-Point			0
S-Point Loopback			0
Mobile*			0
Tel*			0
Not used	61~112		52

80 ports of 178 are used

3.1 Blade Types

In PCPro, card types are categorized under the following four groups. When you right click on the chassis model on the screen, the popup menu is displayed. The menu lists the cards and each card type is designated with a distinctive color.

Blade Type and Color	
 Telephone	 Combo
 Trunk	 Other

Telephone

Represented on the Blade Configuration screen as 'blue' cards. Telephone cards provide interfaces to telephones being used in the chassis. Telephone cards use telephone ports (e.g., a IP7WW-008U-C1 makes use of eight telephone ports).

Trunk

Represented on the Card Configuration screen as 'yellow' blades. Trunk cards provide interfaces to lines such as COI or PRI which are being used in the chassis. Trunk cards, use trunk ports (e.g., a IP7WW-3COIDB-C1 card makes use of three trunk ports).

Combo

Represented on the Card Configuration screen as 'yellow/blue' cards. Trunk cards provide interfaces to lines such as digital single line stations, which are being used in the chassis. Combo cards, use telephone ports (e.g., a IP7WW-082U-B1 card makes use of eight digital telephone ports and two analog ports).

3.2 Adding a Card

To add a card, complete the following steps:

1. With the mouse, right click on the slot where you want the card to reside.
2. A popup menu appears listing the card types that can be installed.



NOTE

There are two additional options on the popup menu. These are Configure Card and Delete Card. These two options are only available if a card has previously been added.

3. Select a card type relevant to the card to install.
4. Another popup menu appears listing cards associated with the selected card type.

5. Select the desired card package you want to add.

The slot changes appearances to indicate the card that is installed, the firmware version, the port type and the port range that is used.

3.3 Removing a Card

To remove a card, complete the following steps:

1. With the mouse, right click on the card you want to remove.
2. When the popup menu is displayed, select **Delete Card**.

The card is removed and the slot and port type range it was utilizing is now available for use by another card.

SECTION 4 CLASS OF SERVICE FOR TELEPHONES

This screen combines system data relevant to Class of Service Options for telephones.

Figure 4-4 Standard View Class of Service for Telephones

For each feature enable or disable each COS by clicking the circle for the appropriate COS. Blue means it is enabled for the selected COS, White means it is disabled.

T	Port	Number	Name	1	2	3	4	5	6	7	8
001	501	Rad Rec 1	15	15	15	15	15	15	15	15	15
002											
003	502	Rad Rec 2	1	1	1	1	1	1	1	1	1
004			1	1	1	1	1	1	1	1	1
005	503	Onc Rec 1	1	1	1	1	1	1	1	1	1
006			1	1	1	1	1	1	1	1	1
007	504	Onc Rec 2	1	1	1	1	1	1	1	1	1
008			1	1	1	1	1	1	1	1	1
009			1	1	1	1	1	1	1	1	1
010			1	1	1	1	1	1	1	1	1
011	505	Rad Coord...	1	1	1	1	1	1	1	1	1
012	506	Rad Coord...	1	1	1	1	1	1	1	1	1
013	507	Onc Coord...	1	1	1	1	1	1	1	1	1
014	508	Onc Coord...	1	1	1	1	1	1	1	1	1
015	509	Hall A M...	1	1	1	1	1	1	1	1	1
016	510	Hall A M...	1	1	1	1	1	1	1	1	1
017	511	Hall A RN	1	1	1	1	1	1	1	1	1
018	512	Hall A PA	1	1	1	1	1	1	1	1	1
019			1	1	1	1	1	1	1	1	1
020			1	1	1	1	1	1	1	1	1
021	513	Hall A DR	1	1	1	1	1	1	1	1	1
022	514	Hall B M...	1	1	1	1	1	1	1	1	1
023	515	Hall B M...	1	1	1	1	1	1	1	1	1
024	516	Hall B RN	1	1	1	1	1	1	1	1	1
025	517	Hall B PA	1	1	1	1	1	1	1	1	1
026	518	Hall B DR	1	1	1	1	1	1	1	1	1
027	519	Hall C MA	1	1	1	1	1	1	1	1	1
028	520	Hall C DR	1	1	1	1	1	1	1	1	1
029			1	1	1	1	1	1	1	1	1
030			1	1	1	1	1	1	1	1	1
031	521	Pharmacy	1	1	1	1	1	1	1	1	1
032	522	Chemo 1	1	1	1	1	1	1	1	1	1
033	523	Chemo 2	1	1	1	1	1	1	1	1	1
034	524	Nurse Mgr	1	1	1	1	1	1	1	1	1
035	525	Fac Mgr	1	1	1	1	1	1	1	1	1
036	526	Pet/CT Ctrl	1	1	1	1	1	1	1	1	1
037	527	Dosimetry	1	1	1	1	1	1	1	1	1
038	528	Rad Ctrl	1	1	1	1	1	1	1	1	1
039			1	1	1	1	1	1	1	1	1
040			1	1	1	1	1	1	1	1	1

The assign Class of Service settings for telephones:

1. For each feature enable or disable each COS (1-15) by clicking the circle for the appropriate COS.
2. Enable/Disable telephone-specific feature options for the selected Class of Service. These settings are linked with programs 20-07, 20-08, 20-09, 20-10, 20-11, 20-12 and 20-13.



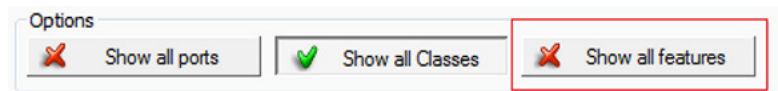
NOTE

You can select one of three options for viewing the features:

Show all features.

-- or --

Show only frequently used features.



You can also choose how you want to view the options:

Categorized by program

CMD

-- or --

Alphabetic (by feature name)

Feature

3. Blue means it is enabled for the selected COS, White means it is disabled.
4. Click **Apply** to save the settings.

The selected telephones will be members of the class during the selected Night Mode. These settings are linked with 20-06.

SECTION 5 NIGHT MODE SWITCHING

This screen combines system data relevant to the Chassis feature “Night Service”.

Figure 4-5 Night Service Setup

1) Enable/Disable Automatic Night Mode switching.

2) Assign name to each mode.

3) Specify the mode for the time periods associate with each pattern.

4) Set time pattern resolution.

The screenshot displays the 'Night Service Setup' interface. At the top left, there is a checkbox labeled 'Enable schedule' which is checked. Below this is the 'Weekly schedule' section. On the left side of this section is a legend with icons and names for different modes: <Night>, <Mid-night>, <Rest>, <Day2>, <Night2>, <Midnight2>, <Rest2>, and a plus sign for additional modes. Below the legend is a 'Zoom' button. The main part of the weekly schedule is a grid with 10 rows labeled 'Pattern 1' through 'Pattern 10' and columns representing time from 00 to 22 in 2-hour increments. A 'Grid resolution' dropdown is set to 30. A 'Normalise' button is located to the right of the grid. Below the grid is a 'Selected time period fine edit (zoom)' section with 'Start' (00:00), 'End' (08:30), and 'Mode' (<Night>) fields, along with a 'Make change' button. To the right of the grid is a 7x7 grid of buttons for days of the week (Su, Mo, Tu, We, Th, Fr, Sa) and a 'Normalise' button below it. The 'Holiday schedule' section at the bottom left shows a list of patterns (Pattern 1 to Pattern 10) with corresponding colored icons. To its right is a calendar view for May, June, and July 2017, with a 'Today' button below it.

5) Set which pattern each day of the week should follow.

The Normalise icon will automatically assign each day of the week to its own pattern.

6) Specify holiday dates and which pattern the holiday should follow.

To setup the Night Mode Switching options:

You can define up to 10 Schedule Patterns for the selected Night Mode Service Group. Schedule Patterns is made up of time frames of 1, 15, 20 or 30 minutes. Each time frame is associated with a Night Mode. These settings are linked with 12-03.

1. Enable/disable Automatic Night Mode Service.

This selection enables/disables Night Mode Service for the system. This setting is linked with 12-01-01. This is a system-wide setting and is applied across **ALL** Service Groups.

2. Assign a name to each Night Mode. This can be used to identify the time frame. Night Mode names defined here are referred to throughout the system. These settings are linked to 12-07.

3. Define Schedule Patterns used by the selected Night Mode Service Group. Schedule Patterns are comprised of time frames that are associated to Night Modes. You can define up to 10 Schedule Patterns for the selected Night Mode Service Group. Schedule Patterns can be made up of 20 time frames. Each time frame is associated with a Night Mode. These settings are linked with 12-03.

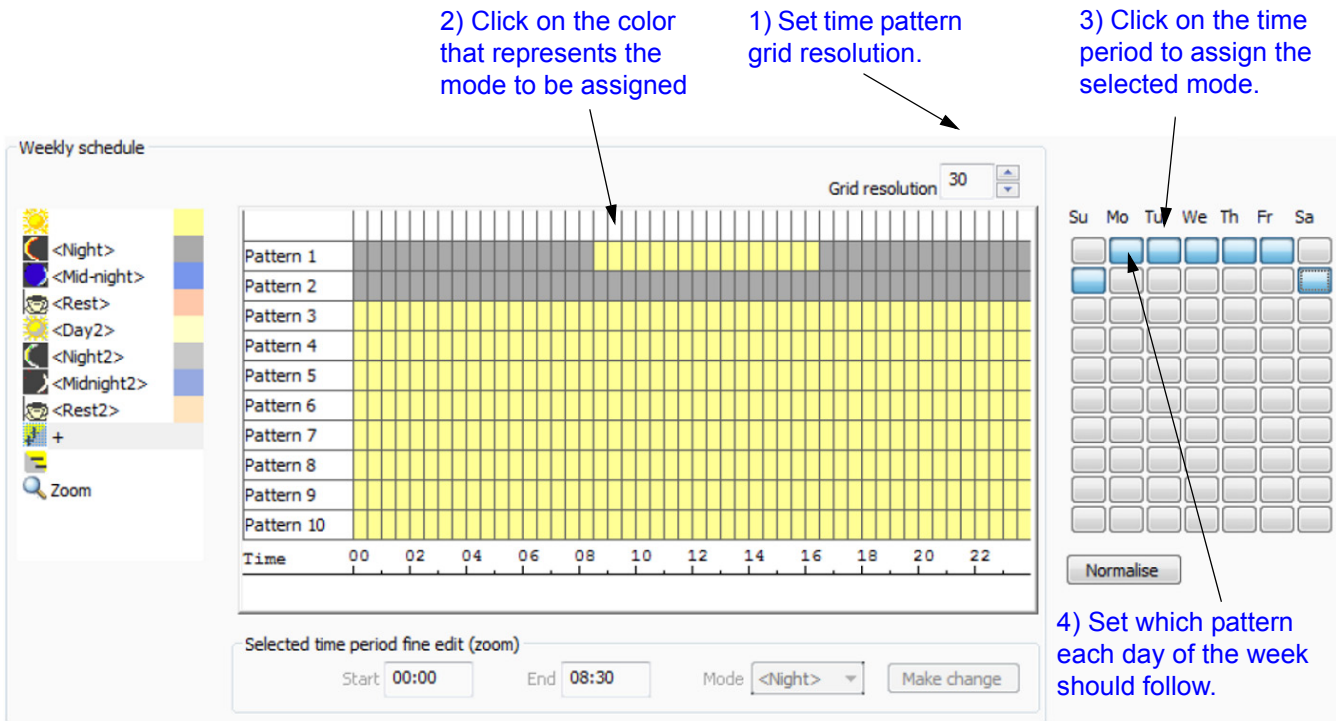
Refer to [5.1 Modifying a Time Frame on page 4-10](#) and [Figure 4-7 Standard View Night Mode Switching Mode Colors on page 4-11](#).

4. Set the time pattern display resolution, options are 1, 15, 20, and 30 minutes.
5. Specify the Service Patterns applied to each day of the week. Define the Schedule Pattern used each day of the week by the selected Night Mode Service Group. These settings are linked with 12-03.
6. Define public holidays and the Schedule Pattern used by the Night Mode Service Group on these days. Each pattern has a unique color, clicking on the date will cycle through all 10 patterns. These settings are linked with 12-04

5.1 Modifying a Time Frame

This section describes how to add a time frame to a schedule for night mode switching.

Figure 4-6 Standard View Night Mode Switching Adding Time Frame



4) Set which pattern each day of the week should follow.

The Normalise icon will automatically assign each day of the week to its own pattern.

To modify a time frame in a Schedule:

1. Using the mouse select the Grid Resolution time 1, 15, 20, or 30 minutes.
2. On the left click the color that represents the mode to be assigned.
3. Click the time window for the pattern to be changed.

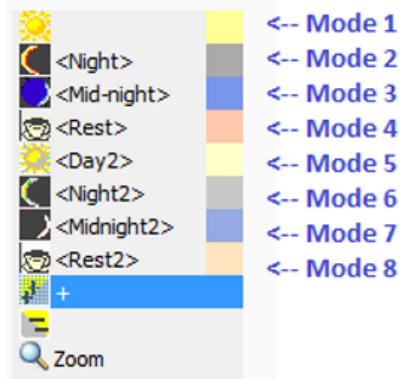
-- OR --

Left click and drag from the starting time toward the end time. Keep the left mouse button pressed while dragging.

4. Release the left mouse button, the time windows selected in step 3 will change to the color of the mode selected in step 2.

Each mode is assigned a different color. These colors are shown in [Figure 4-7 Standard View Night Mode Switching Mode Colors](#).

Figure 4-7 Standard View Night Mode Switching Mode Colors



SECTION 6 SYSTEM TIMERS

This screen allows you to set up system-wide timers.

Figure 4-8 Standard View System Timers

Make necessary changes to the timers.

Alarm clock duration	30
Alarm Ring Timer (E911)	0
ALERT replay time (CTI)	8
AREYUTHERE/LINETEST Duration	10
AREYUTHERE/LINETEST Send Count	3
Busy Tone Timer	15
Call Attendant - Busy Message	0
Call Attendant - No Answer Message	0
Call Coverage Delay Interval	10
Call Waiting Tone Timer	10
Caller ID Sender Queuing Timer	0
Caller-ID information waiting timer	5
Calling Time to Automatic answering Telephone set	10
Camp-on cancel time	64800
Camp-on extension call-back time	15
Camp-on trunk call-back time	15
Clear signal (open loop) detection time	61
Conference Tone Interval	0
Congestion Tone	10
Conversation continue code	
Conversation Cutoff for Remote Monitor	180
Conversation disconnect code	
Conversation extend time	0
Delay in Dialing Digital Pager Callback Number	30
Delay Time for STG call transfer	10
Delayed DUD Answer Timer	10
Delayed ring timer for CTI	50
Dial Digits for Toll Restriction Path control	0
Dial pause at first digit	1
Dial Tone Detection	5
Dialing record displaying time	30
DID Incoming Ring Group no answer timer	20
DID no answer time	20
DID Pilot Call No answer timer	60
DID to Trunk to Trunk no answer timer	20
DISA Conversation Disconnect Timer	10
DISA Conversation Warning Tone Time	3600
DISA External paging duration	30
DISA Internal paging duration	30
Disconnect after DUD/DISA re-transfer to IRG	60
Disconnect time when dial tone not detected	3
Door lock cancel	10
Door-phone answer time	30
Double ringing detection maximum off time	40
Double ringing detection minimum off time	10
DTMF receive active timer	10

The settings that can be changed on this screen include the individual timers. The timers can be displayed in program order (Default), ascending or descending alphabetical order by clicking on the time name column.

To change the timer settings from the default:

1. Click the value to the right of the time you want to change.
2. Change the timer setting and click **Apply**.

SECTION 7 SYSTEM TIMER CLASSES

This screen combines system data relevant to Timer Classes. Timer Classes detail timers for each class 1-15. Extensions can then be assigned as members of these classes for each of the system Night Modes in Program 20-29. Trunks can then be assigned as members of these classes for each of the system Night Modes in program 20-30.

Figure 4-9 Standard View System Timer Classes

Timer Class Option	01	02	03	04	05	06	07	Timer Class
Trunk Queuing Callback Duration Time	15	15	15	15	15	15	15	
Callback / Trunk Queuing Cancel Time	64800	64800	64800	64800	64800	64800	64800	
Call Coverage Delay Interval Time (Virtual Extension Key)	10	10	10	10	10	10	10	
Intercom Inter-digits Time	10	10	10	10	10	10	10	
Trunk Inter-digits Time	5	5	5	5	5	5	5	
Hotline Time Start Time	5	5	5	5	5	5	5	
Ring No Answer Alarm Time	60	60	60	60	60	60	60	
DIL/Incoming Ring Group No Answer Time	0	0	0	0	0	0	0	
DID Ring-No-Answer Time	20	20	20	20	20	20	20	
Hold Recall Time (Non exclusive Hold)	60	60	60	60	60	60	60	
Hold Recall CallBack Time (Non exclusive Hold)	30	30	30	30	30	30	30	
Exclusive Hold Recall Time	90	90	90	90	90	90	90	
Exclusive Hold Recall Callback Time	30	30	30	30	30	30	30	
Park Hold Time - Normal	60	60	60	60	60	60	60	
Delayed Call Forwarding Time	10	10	10	10	10	10	10	
Transfer Recall Time	20	20	20	20	20	20	20	
DID/DISA No Answer Time (Disconnect or IRG or VM)	0	0	0	0	0	0	0	
Disconnect after Re-transfer to IRG	60	60	60	60	60	60	60	
Long Conversation Warning Tone Time (Trunk to Trunk)	3600	3600	3600	3600	3600	3600	3600	
Long Conversation Disconnect (Trunk to Trunk)	10	10	10	10	10	10	10	
DISA Internal Paging Time	30	30	30	30	30	30	30	
DISA External Paging Time	30	30	30	30	30	30	30	
Page Announcement Duration	1200	1200	1200	1200	1200	1200	1200	
Mobile Extension answer time	3	3	3	3	3	3	3	
Mobile Extension callback time	15	15	15	15	15	15	15	

The settings that can be changed on this screen include:

- Time Class:** The Timer Class to which timers are assigned.
- Night Mode:** The Night Mode assigned for night mode switching.
- Timers:** The system wide timers that can be changed.
- Trunks/Telephone:** Lists the trunks/telephones that are members of the class during the selected Night Mode.
- Extensions:** Lists the extensions that are members of the class during the selected Night Mode.

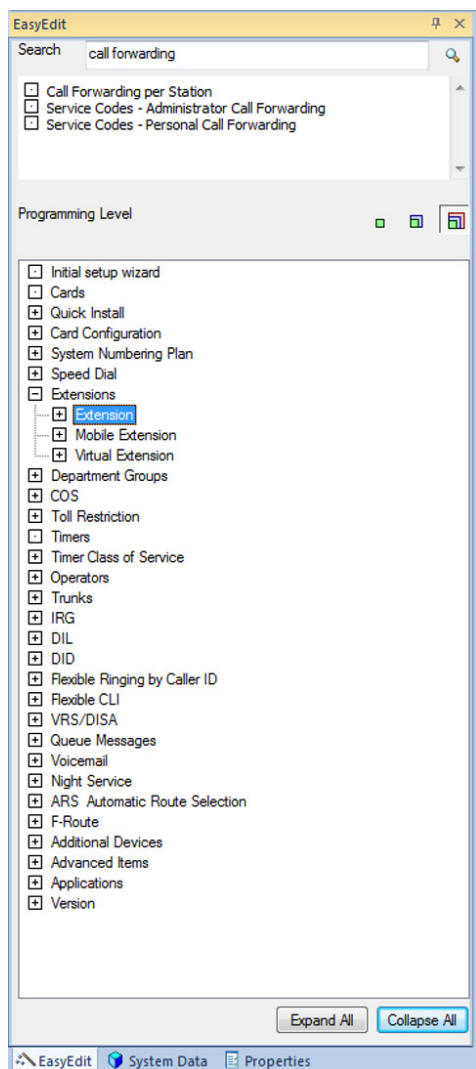
Easy Edit

Chapter 5

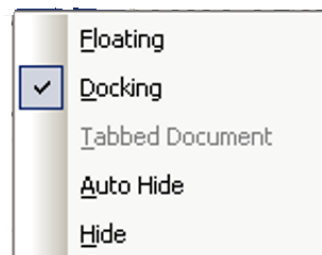
SECTION 1 OVERVIEW

Easy Edit is a system programming feature where system settings are grouped together by feature or equipment type. This allows commonly changed system settings to be quickly accessed and programmed when configuring a system.

Figure 5-1 Easy Edit Submenu



Window View: Clicking this icon displays the flyout, which allows you to select how you want the Easy Edit submenu displayed. Right mouse clicking also displays this menu.



Auto Hide: Clicking this icon hides the Easy Edit submenu list and docks the tabs on the left side of the screen.



Close: Clicking this icon closes the Easy Edit submenu list and tabs.

SECTION 2 ACCESSING EASY EDIT VIEW

To access Easy Edit View complete one of the following:

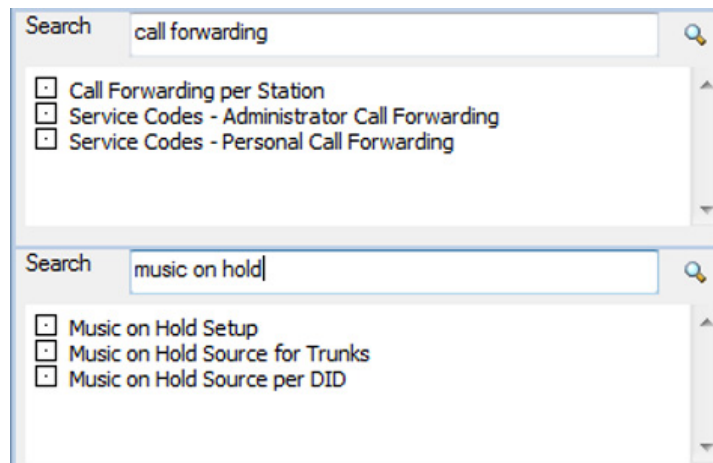
- Select **View Tab > Easy Edit**.
-- or --
- Press **F12**.
-- or --
- If the Easy Edit submenu area is currently open, select the **Easy Edit** tab depicting the magic wand, located at the bottom on the submenu.



Easy Edit is a system programming feature where system settings are grouped together by feature or equipment type. This allows commonly changed system settings to be quickly accessed and programmed when configuring a system.

SECTION 3 SEARCHING FOR A FEATURE

You can use the search function of Easy Edit to locate a specific feature or use a keyword to find a group of related features. The example below shows entering the exact feature name to locate the feature and entering a keyword to locate a group of similar features. Start the search by either pressing the magnifying glass icon or pressing **Enter**.



SECTION 4 PROGRAMMING LEVELS

There are three levels in which feature programming is grouped. You can apply program filters to system data programming:

- ❑ Level 1 – are the most commonly assigned programs for a feature.
- ❑ Level 2 – are the next most commonly assigned programs for a feature.
- ❑ Level 3 – are programs that are not often assigned for a particular feature and require an expert level working knowledge of the system to be properly assigned.

To show the level of programming for a feature:

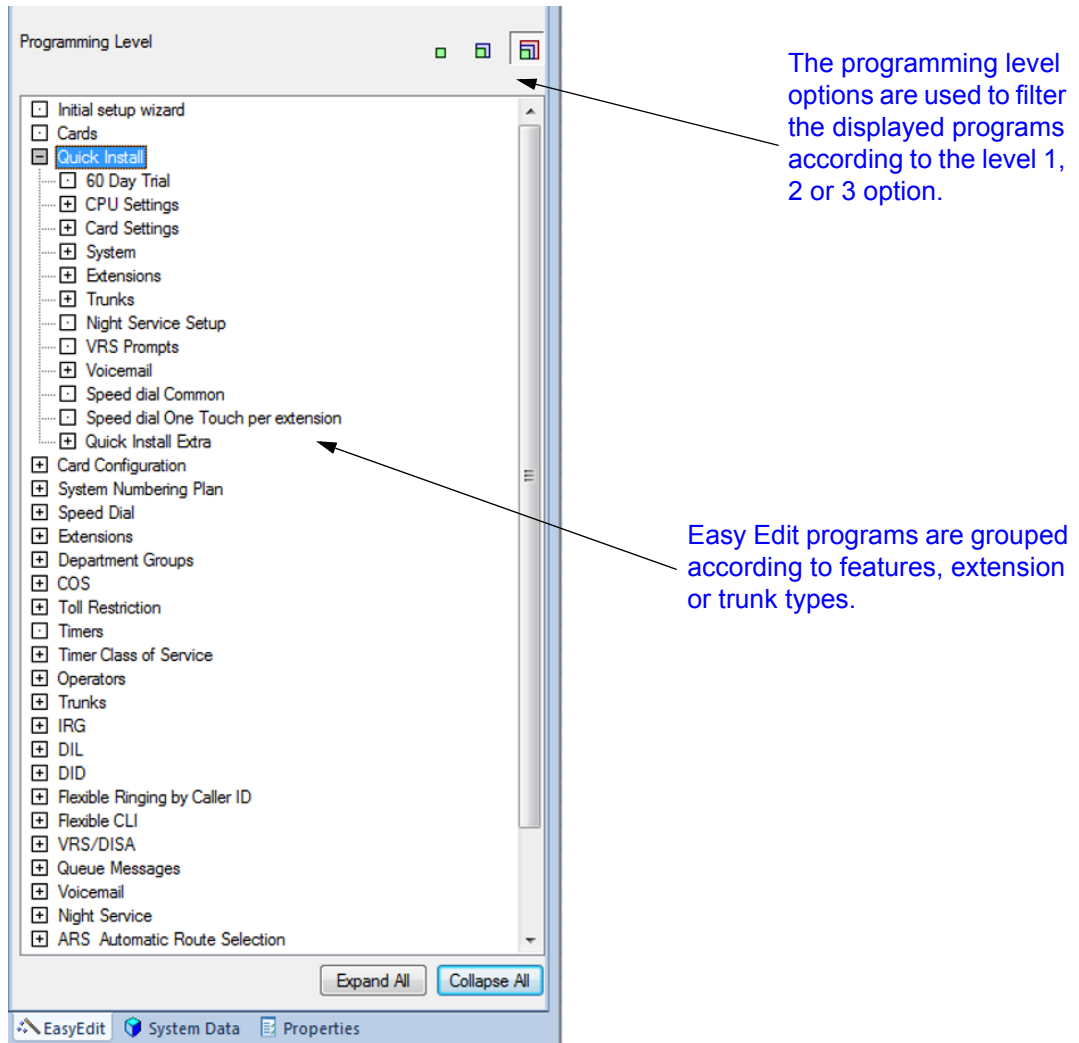
1. Press the desired level to view the programs assigned at that level.
2. Select a feature.



SECTION 5 USING EASY EDIT

Easy Edit is a system programming feature where system settings are grouped together by feature or equipment type. This allows commonly changed system settings to be quickly accessed and programmed when configuring a system.

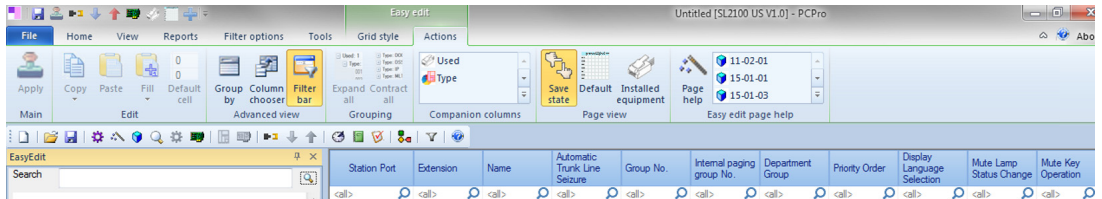
Figure 5-2 Easy Edit Tab



5.1 Filter Bar

Filtering adds the ability to filter an easy edit page on any settable value for the selected column. Clicking on the Filter Bar icon will enable this feature.

Figure 5-3 Filter Bar



After the filter bar is displayed any value can be entered as a filter for a column. In the example below, the station name column was filtered for "10", so any name that contains 10 will be shown. You can filter multiple columns for different values as needed.

Once in the Column array, data can be grouped using the Group Bar. To return the page back to default click on the "Default" icon.

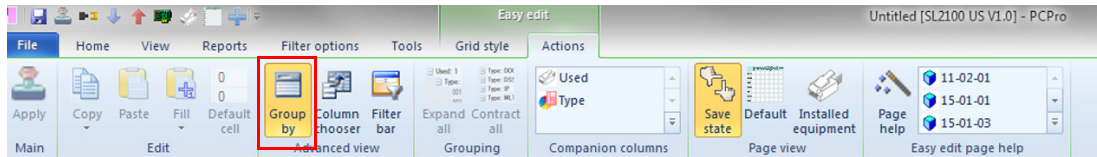
Figure 5-4 Column Filter Example

Station Port	Extension	Name	Automatic Trunk Line Seizure	Off-hook Signaling Type	Message Waiting Lamp LED Color	Voice Mail Message Waiting LED...	Disable soft key	Internal Paging Group	Internal All Call Paging Receiving	Night Mode Group	SMDR Printout
<call>	<call>	10	<call>	<call>	<call>	<call>	<call>	<call>	<call>	<call>	<call>
001	101	STA 101		1 Beep Tone...	Red	Red		0		1	✓
002	102	STA 102		1 Beep Tone...	Red	Red		0		1	✓
003	103	STA 103		1 Beep Tone...	Red	Red		1		1	✓
004	104	STA 104		1 Beep Tone...	Red	Red		0		1	✓
005	105	STA 105		1 Beep Tone...	Red	Red		1		1	✓
006	106	STA 106		1 Beep Tone...	Red	Red		1		1	✓
007	107	STA 107		1 Beep Tone...	Red	Red		1		1	✓
008	108	STA 108		1 Beep Tone...	Red	Red		1		1	✓
009	109	STA 109		1 Beep Tone...	Red	Red		1		1	✓
010	110	STA 110		1 Beep Tone...	Red	Red		1		1	✓
100	3101	STA 3101		1 Beep Tone...	Red	Red		0		1	✓
101	3102	STA 3102		1 Beep Tone...	Red	Red		0		1	✓
102	3103	STA 3103		1 Beep Tone...	Red	Red		0		1	✓
103	3104	STA 3104		1 Beep Tone...	Red	Red		0		1	✓
104	3105	STA 3105		1 Beep Tone...	Red	Red		0		1	✓
105	3106	STA 3106		1 Beep Tone...	Red	Red		0		1	✓
106	3107	STA 3107		1 Beep Tone...	Red	Red		0		1	✓
107	3108	STA 3108		1 Beep Tone...	Red	Red		0		1	✓
108	3109	STA 3109		1 Beep Tone...	Red	Red		0		1	✓
109	3110	STA 3110		1 Beep Tone...	Red	Red		0		1	✓
209	3210	STA 3210		1 Beep Tone...	Red	Red		0		1	✓
309	3310	STA 3310		1 Beep Tone...	Red	Red		0		1	✓
409	3410	STA 3410		1 Beep Tone...	Red	Red		0		1	✓
509	3510	STA 3510		1 Beep Tone...	Red	Red		0		1	✓
609	3610	STA 3610		1 Beep Tone...	Red	Red		0		1	✓
709	3710	STA 3710		1 Beep Tone...	Red	Red		0		1	✓
809	3810	STA 3810		1 Beep Tone...	Red	Red		0		1	✓
909	3910	STA 3910		1 Beep Tone...	Red	Red		0		1	✓

5.2 Group By

The Group By option adds the ability to sort displayed data on an easy edit page by any of the setting options for that page, or by any settable value for the selected column. Clicking on the Group by icon will enable this feature.

Figure 5-5 Group By Option



To set group by options, simply click on the **Group By** option. Then drag a column heading into the group by area to use that as a grouping option. Grouping options are set as priority in the order they were added. In the example below, the grouping is first done by Message Waiting Lamp LED Color, then by Extension number. Grouping can be done as needed in any order and by as many options as there are columns on a particular page.

The **Expand All** and **Contract All** features are used to expand or contract all grouping.

Once grouped, data can be filtered using the Filter Bar. To return the page back to default, simply click on the “Default” icon.

Figure 5-6 Group By Internal Paging Group Example

A screenshot of a data table interface. At the top, there are input fields for 'Extension' and 'Internal paging group No.'. Below is a table with columns: Station Port, Extension, Name, Automatic Trunk Line Seizure, Group No., Internal paging group No., Internal All Call Paging receiving, Park Group, Department Group, and Priority Order. The table is grouped by 'Extension: 101'. Under this group, there is a sub-group 'Internal paging group No.: 1' which is expanded to show a single row of data: Station Port: 001, Extension: 101, Automatic Trunk Line Seizure: [checkbox], Group No.: 1, Internal paging group No.: 1, Internal All Call Paging receiving: [checkbox], Park Group: 1, Department Group: 1, Priority Order: 1.

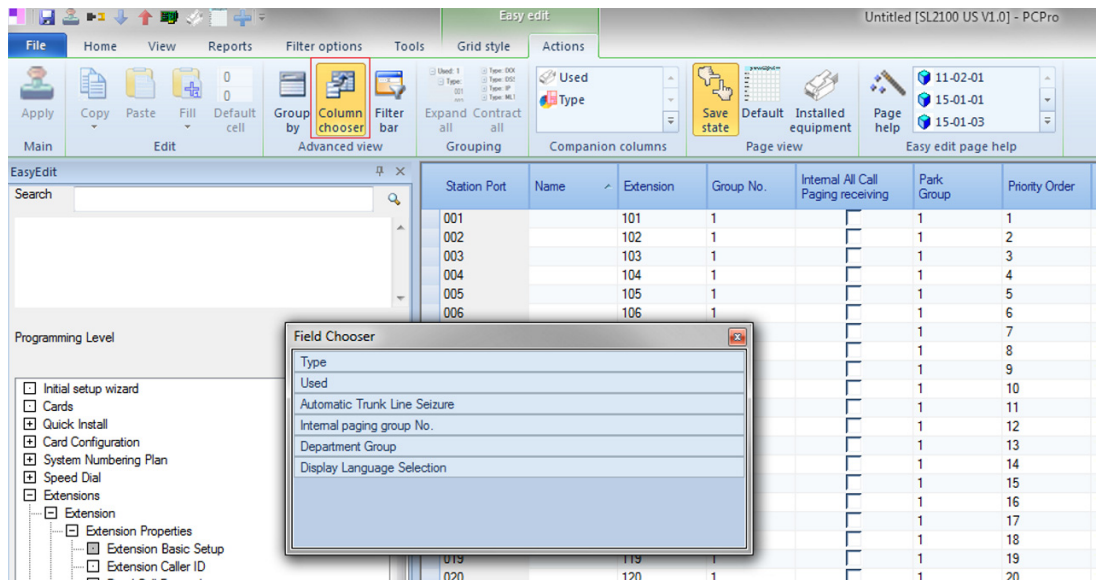
5.3 Column Chooser

The Column Chooser allows the customization of pages to display only the desired columns. Clicking the **Column Chooser** icon will bring up a window to which columns can be dragged in and out of. To remove a column, click the heading and drag it to the Column Chooser window. To add a column click the heading and drag it into the Column array area.

Once in the Column array area columns can be filtered using the Filter Bar or grouped using the Group Bar. Columns can also be moved as needed by clicking and holding the column title then dragging it to the desired position. The order of a column can be changed from high to low or low to high. For instance, the extension column can start with extension 101 at the top or with extension 3961. To change the order click on the column title box, an arrow will appear in that box that when clicked will change to sort order for that column.

To return the page back to default simply click on the “Default” icon.

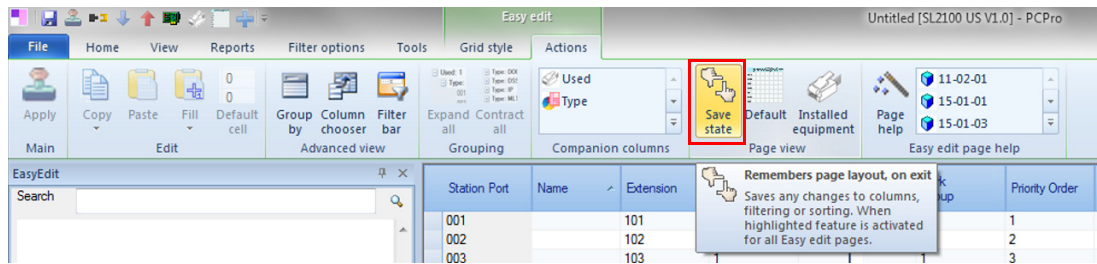
Figure 5-7 Column Chooser Example



5.4 Save State

Once modified, Easy Edit pages can be saved so the same options are displayed each time that page is opened. The current view state of the Easy Edit page as set is saved and is displayed each time you enter the page. You must also save the database to retain this setting on exit. To return the page back to default click on the “Default” icon and choose to Save State again.

Figure 5-8 Save State Example



Settings remembered:

- Column Chooser
- Group By
- Filter Bar enabled or disabled
- Column width
- Column order

Settings not remembered:

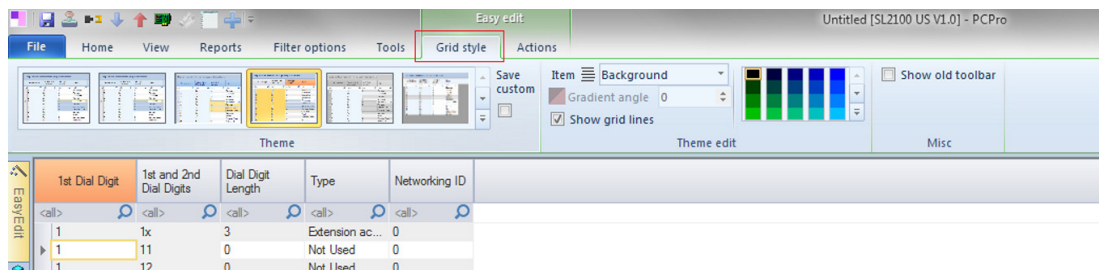
- Filter strings

5.5 Grid Style and Custom Themes

The Grid style is used to select a predefined theme, create a custom theme, or edit an existing theme. This allows the simple selection of six color themes or to make your own theme and save to six custom slots.

A total of six predefined themes or six custom themes can be created. There are many color and gradient options for the grid including color/gradient attributes for each grid area such as odd/even rows, groups, header, selection and others. These can be used to select the preferred scheme.

Figure 5-9 Grid Style Example



Any aspect provided by the grid theme can be changed using the 'Theme edit' panel. First select the Item from the dropdown list. Either the color picker will enable or the gradient spin control.

There are no less than 46 different areas that a color or gradient can be chosen for on the grid.

- Selected cell colors
- Odd and even row colors
- Header
- Grid lines
- Background
- Left offset

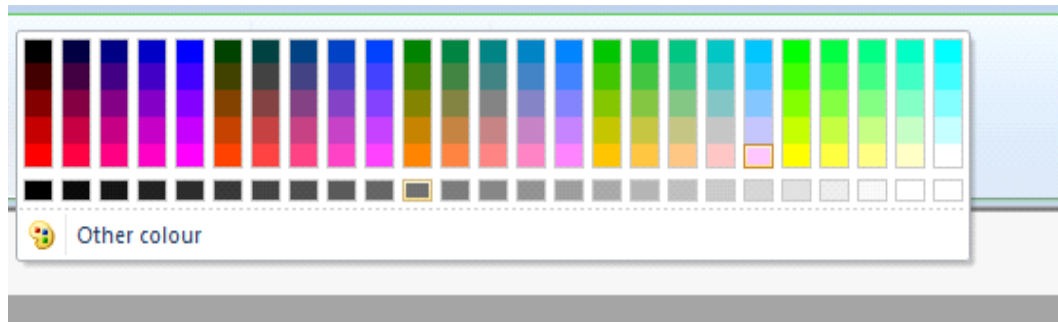
Selected header colors Each with a setting for:

- Background
- Text
- Border

- Gradient color
- Gradient angle
- Grid Lines or no grid lines.

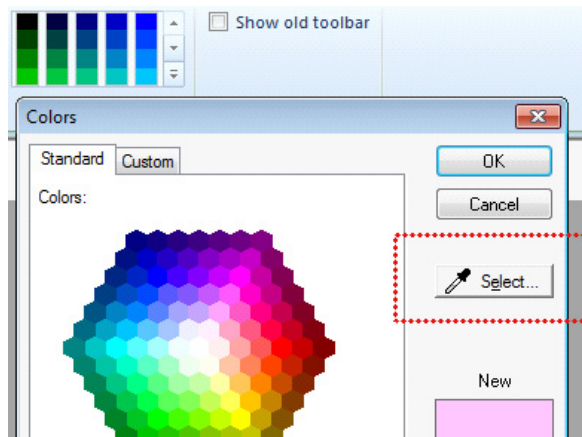
The range of colors follows the colors supported by the user's PC.

Figure 5-10 Color Selection Example



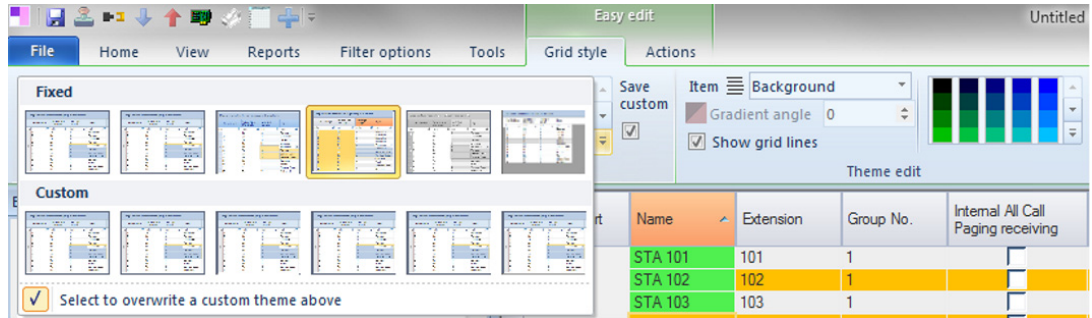
The initial box contains 125 colors and 25 grays, but clicking the 'Other colors' button will bring up the color picker from which the user can even use the 'Select' pipette and touch anywhere on their screen to pick up the color.

Figure 5-11 Choosing the Color Picker



To save a custom theme, choose one of the undefined themes, make changes as desired, then check the “Save Custom” box when finished. A predefined theme can be changed and by checking the “Save Custom” will over-write the default settings for the selected theme.

Figure 5-12 Saving a Custom Theme





Initial Setup Wizard

Chapter 6

SECTION 1 OVERVIEW

Easy Edit is an alternative system programming feature within PC Pro which can be used in place of or in conjunction with System Data commands. Where the System Data view groups commands by command number, Easy Edit groups commands by function. In some cases grouping several commands onto a single screen. Refer to Chapter 5 [Easy Edit](#) for more information.

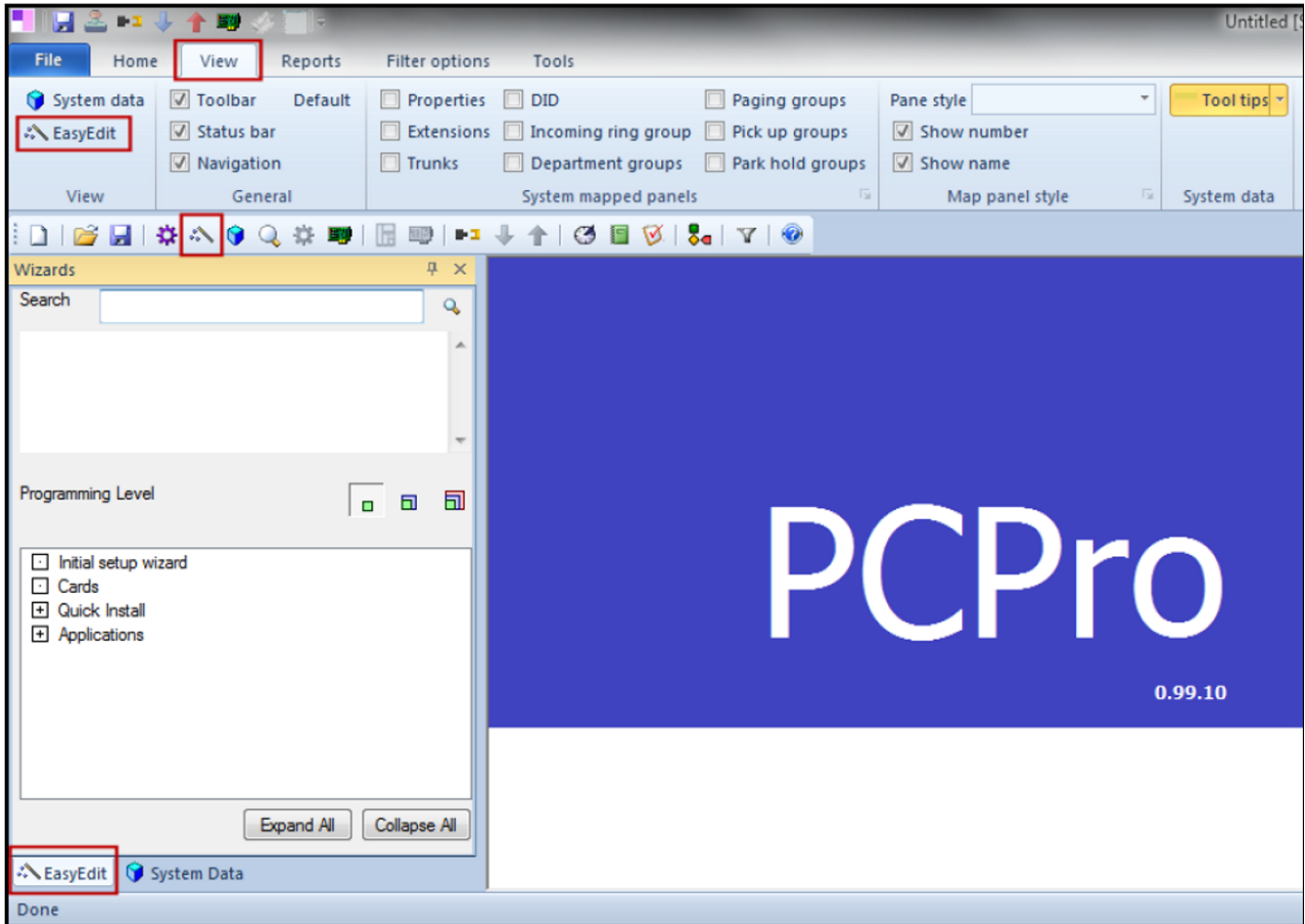
Easy Edit also includes an Initial Setup Wizard that can be used with new installations to setup basic functionality. This can only be used on a default system. The following sections include instructions on defaulting the SL2100 and using the Initial Setup Wizard.

Opening Easy Edit

The Easy Edit menus can be accessed by:

- Selecting **View > Easy Edit** from top menu bar
- Clicking on the **EasyEdit** icon on the Toolbar.
- From the tab at the **lower right** corner.
- Press **F12**.

Figure 6-1 PCPro View Tab

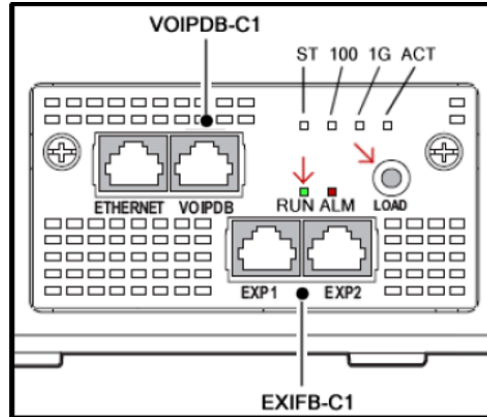


SECTION 2 INITIAL SETUP WIZARD

The Initial Setup Wizard is only used for a new installation, after the system has been factory defaulted, to setup the numbering plan and trunks. Once the database has been modified, the Initial Setup Wizard can no longer be used.

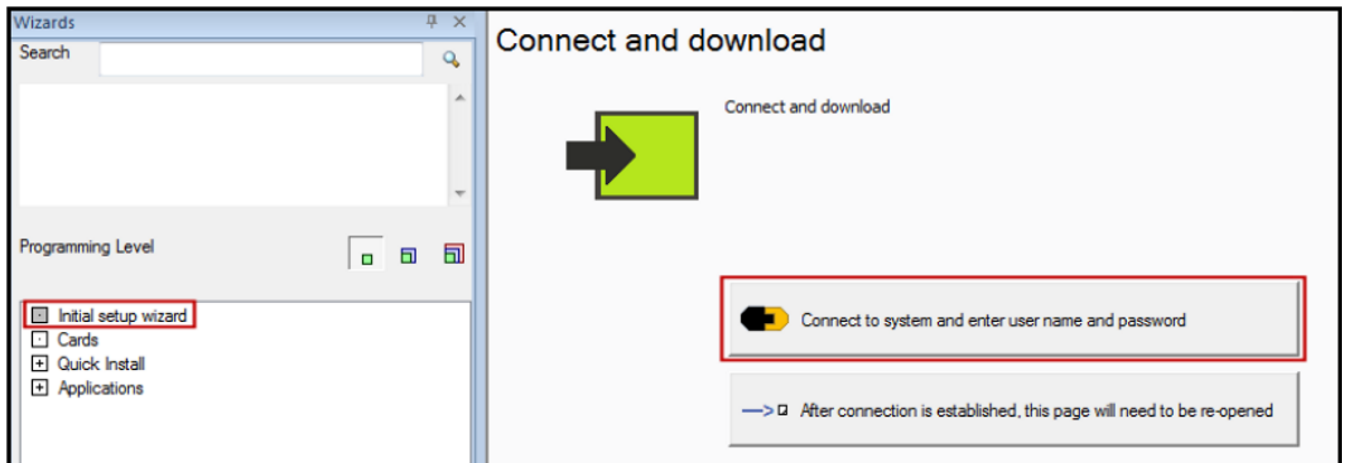
1. Factory default the SL2100 CPU by holding in the **Load** button and turning **On** the power (refer to [Figure 6-2 Load Button on page 6-3](#)). Keep the Load button pressed until the green **Run** lamp illuminates.

Figure 6-2 Load Button



2. Select Initial **Setup Wizard** from the Easy Edit menu.
3. Click the **Connect to the system and enter user name and password** button.

Figure 6-3 Connect to System



4. In the Connection Account window enter the **IP Address** of the SL2100, the **User Name**, and the **Password**.

- IP Address: The default IP addresses of the SL2100 are:
 - Ethernet Connector – 192.168.0.10
 - VoIP Connector – 172.168.0.10

Also, from a multiline (digital) phone, press Menu – 96 – Select to view the current IP addresses.

- User Name: Tech
- Password: 12345678

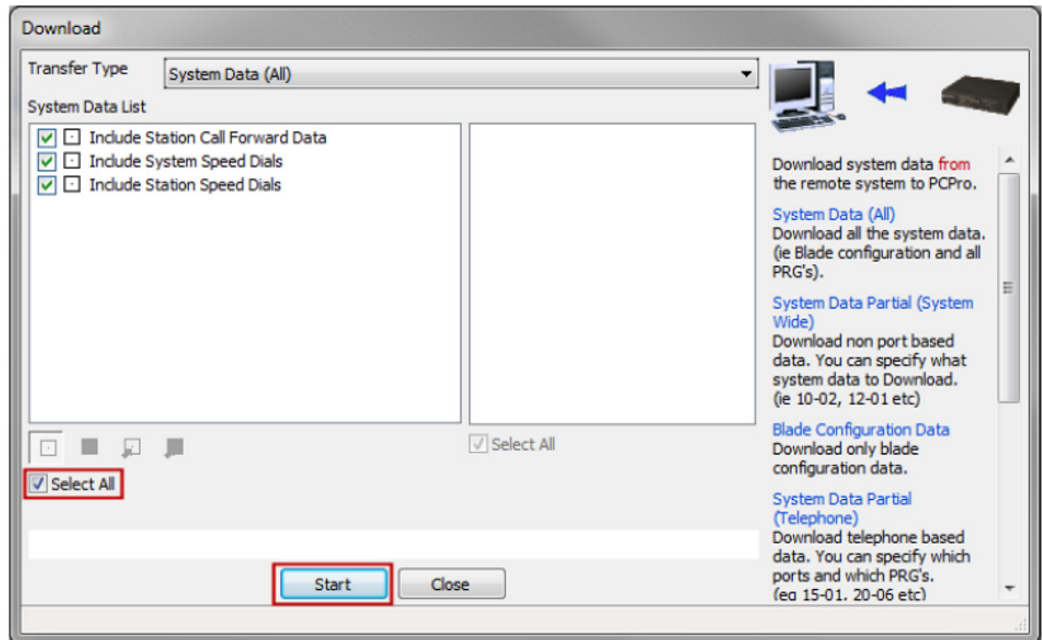
5. Select Initial Setup Wizard again, then click the **Download configuration** then click **“Start setup”** button.

Figure 6-4 Download Configuration



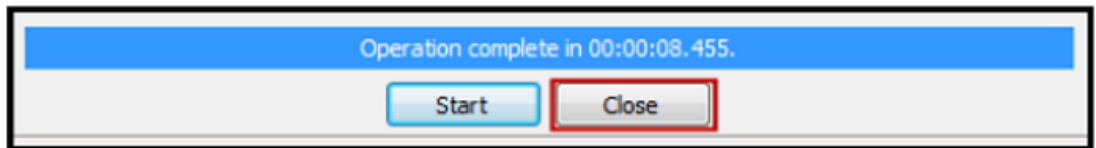
6. In the Download window, verify that **Select All** (refer to [Figure 6-5 Download Screen on page 6-5](#)) is checked, then click **Start**.

Figure 6-5 Download Screen



- When “Download Complete” is displayed, click **Close**.

Figure 6-6 Download Complete Notification

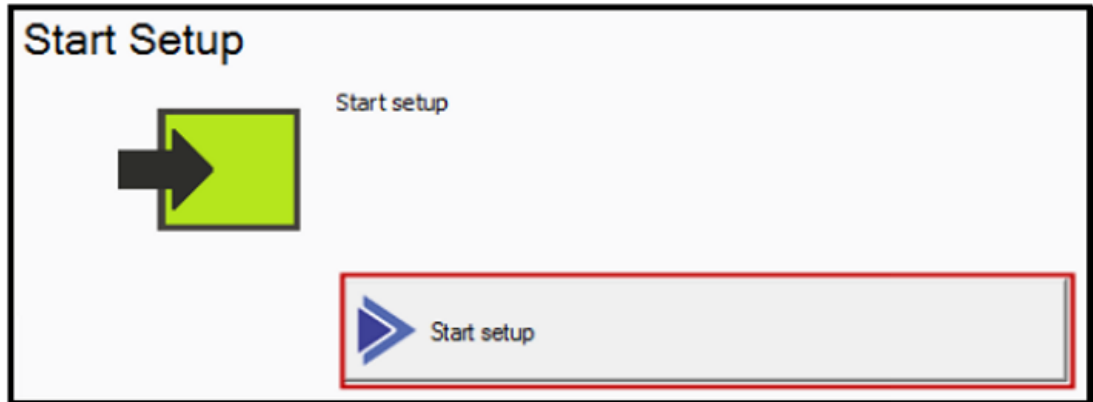


NOTE

If there is an error stating that the database is not default, then the Factory Default from Step 1 has not been performed.

- 8. Click the **Start setup** button.

Figure 6-7 Start Setup Screen



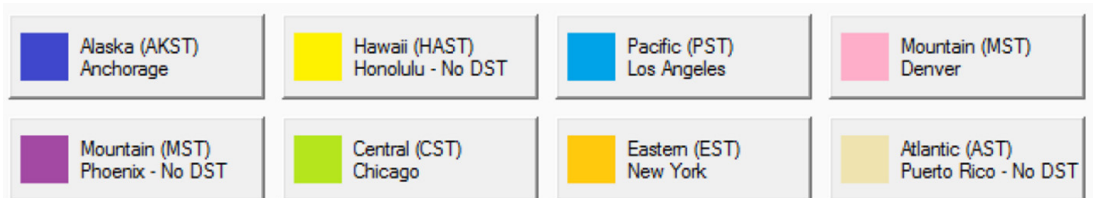
- 9. Select your North American Region.

Figure 6-8 Regions



- 10. Select your Time Zone.

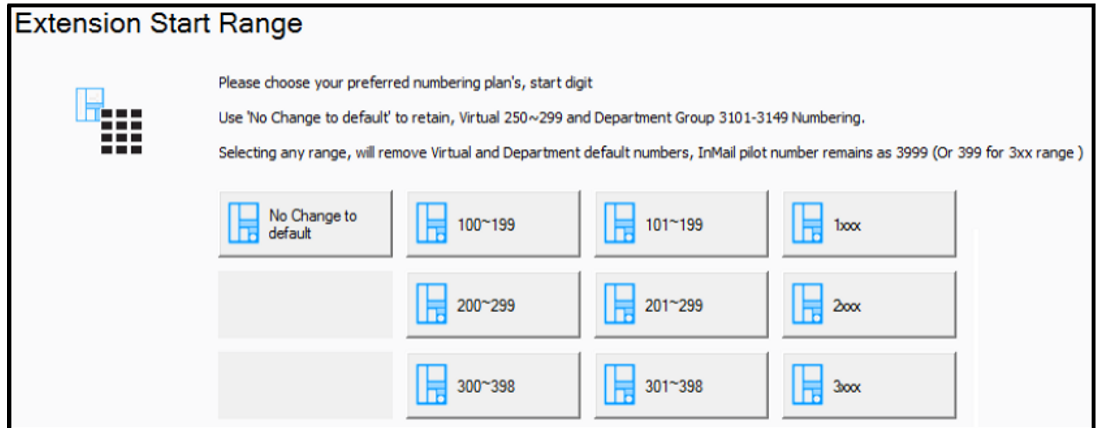
Figure 6-9 Time Zones



11. Select the Extension number range.

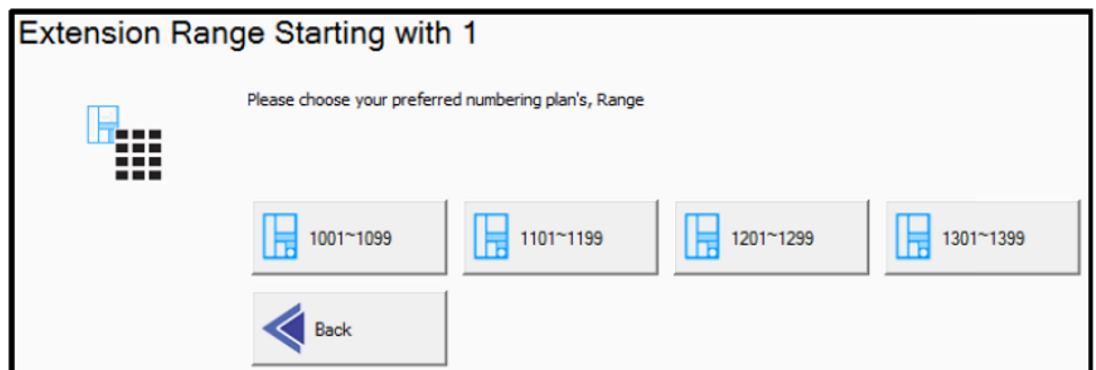
If the defaults, 101-199, are to be kept then select “No change to default”. If 1xxx, 2xxx, or 3xxx is selected, additional selections will be required.

Figure 6-10 Extension Start Range



If the Extension Start Range of 1xxx, 2xxx, or 3xxx was selected in the previous step, click on the specific extension range to be used. Or choose “Back” to make no choice and return to the previous screen.

Figure 6-11 Extension Range Starting with 1



- Select an option to change the default Service Codes or to keep the default values.

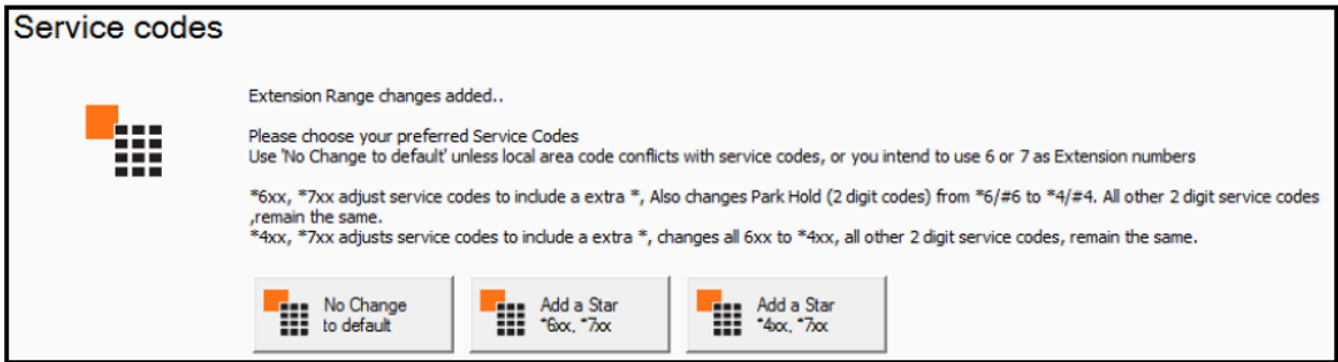


For most installations the Service Codes will remain default.

Why should the Service Codes be changed?

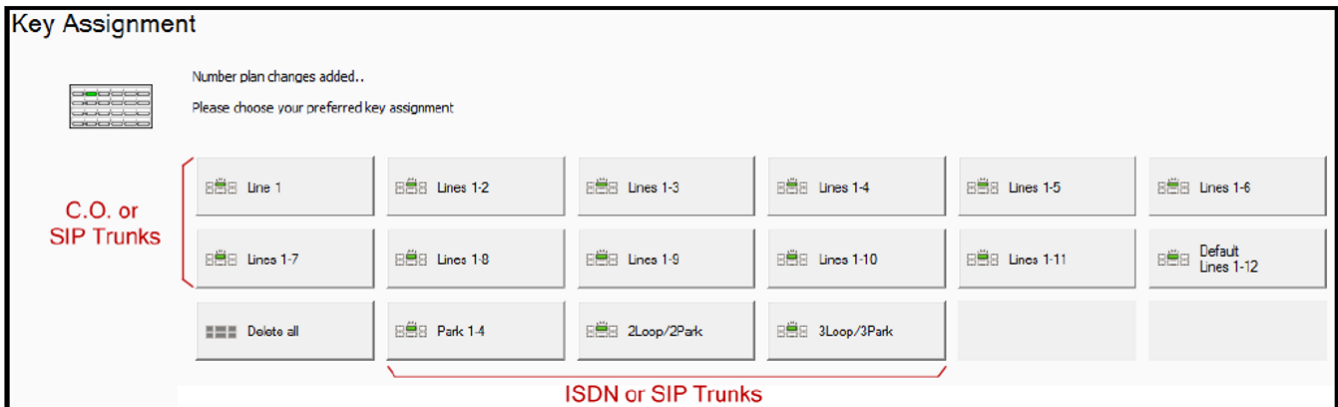
One example is if the local Area Code matches a Service Code, such as 718 (Night Mode Switching), then to prevent the users from accidentally dialing the Service Code it can be changed to *718.

Figure 6-12 Service Codes Screen



- Select the Key Assignment for use with trunks. “Line” keys are typically used for Analog (C.O.) trunks or if there are fewer than 12 SIP trunks. “Loop” & “Park” keys are typically used for ISDN trunks and if there are more than 12 SIP trunks.

Figure 6-13 Key Assignment Screen

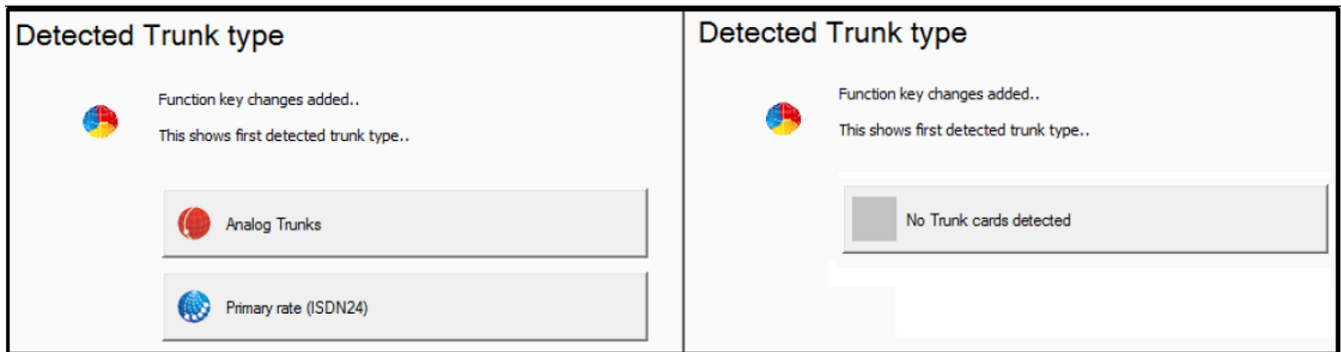


14. The Initial Setup Wizard will auto detect installed ISDN or Analog (C.O.) trunk cards and prompt for their configuration. If no trunk cards are detected, such as if SIP trunks are to be used, then choose **No Trunk cards detected**.



- *If SIP Trunks and Analog Trunks are to both be installed, select “Analog Trunks”. The SIP Trunk selection will appear later in the Setup Wizard.*
- *If SIP Trunks and ISDN Trunks are to both be installed, select “Primary rate (ISDN24)”. The SIP Trunk selection will appear later in the Setup Wizard.*

Figure 6-14 Detected Trunk Type



To configure Analog trunks, continue with section [2.1 Analog \(C.O.\) Trunks](#).

For ISDN PRI trunks, proceed to section [2.2 ISDN PRI Trunks on page 6-13](#).

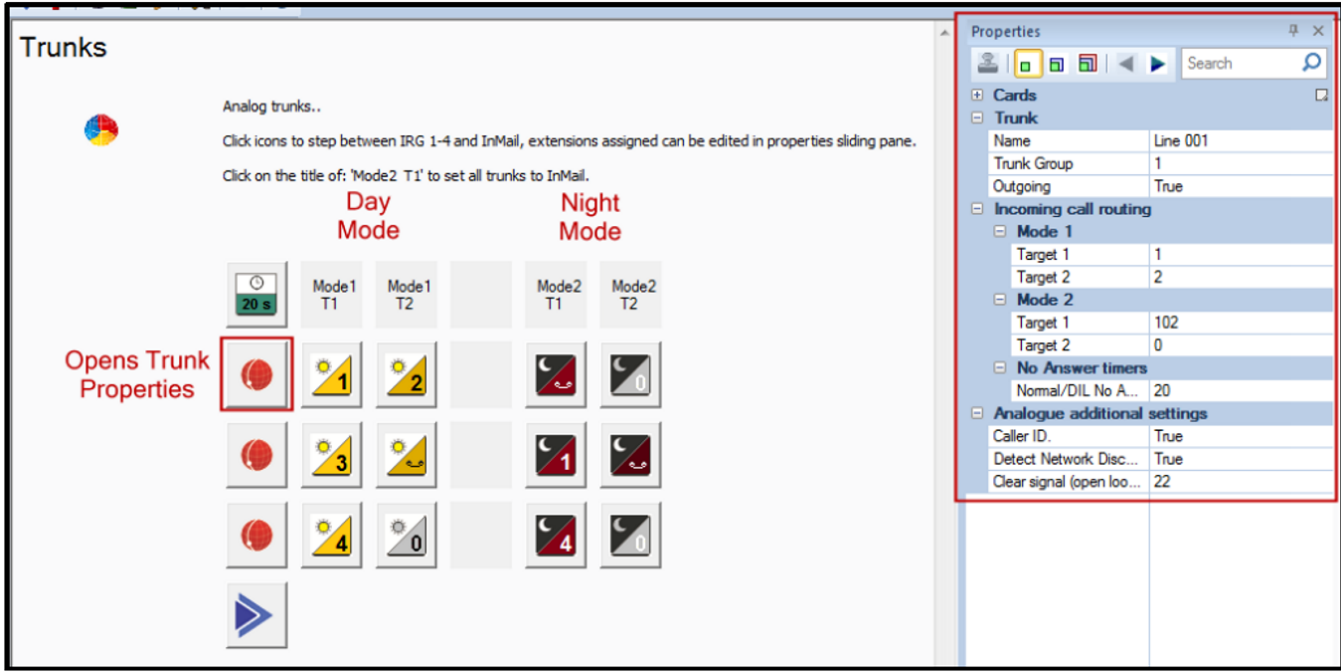
For SIP trunks, proceed to section [2.3 SIP Trunks on page 6-18](#).

2.1 Analog (C.O.) Trunks

The Analog Trunks configuration screen sets the destination of incoming calls on each trunk for both Day Mode (mode 1) and Night Mode (mode 2). Each “mode” has two columns, T1 and T2 (Target 1 and Target 2). The incoming call first lands on the T1 destination, then after the timer (green button) expires, it overflows to the T2 destination.

Each Analog trunk is displayed in top-down order, with Analog trunk 1 on the top most row. Clicking on the red sphere button (refer to [Figure 6-15 Trunks Screen on page 6-10](#)) will open the Trunk Properties window for the selected trunk.

Figure 6-15 Trunks Screen

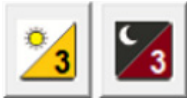

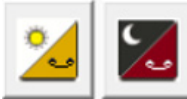




The buttons under the T1 and T2 columns are toggles. Clicking on them will toggle between Ring Group 1, Ring Group 2, Ring Group 3, Ring Group 4 or Auto Attendant. The T2 column also has a Not Set option.

Table 6-1 Button Descriptions

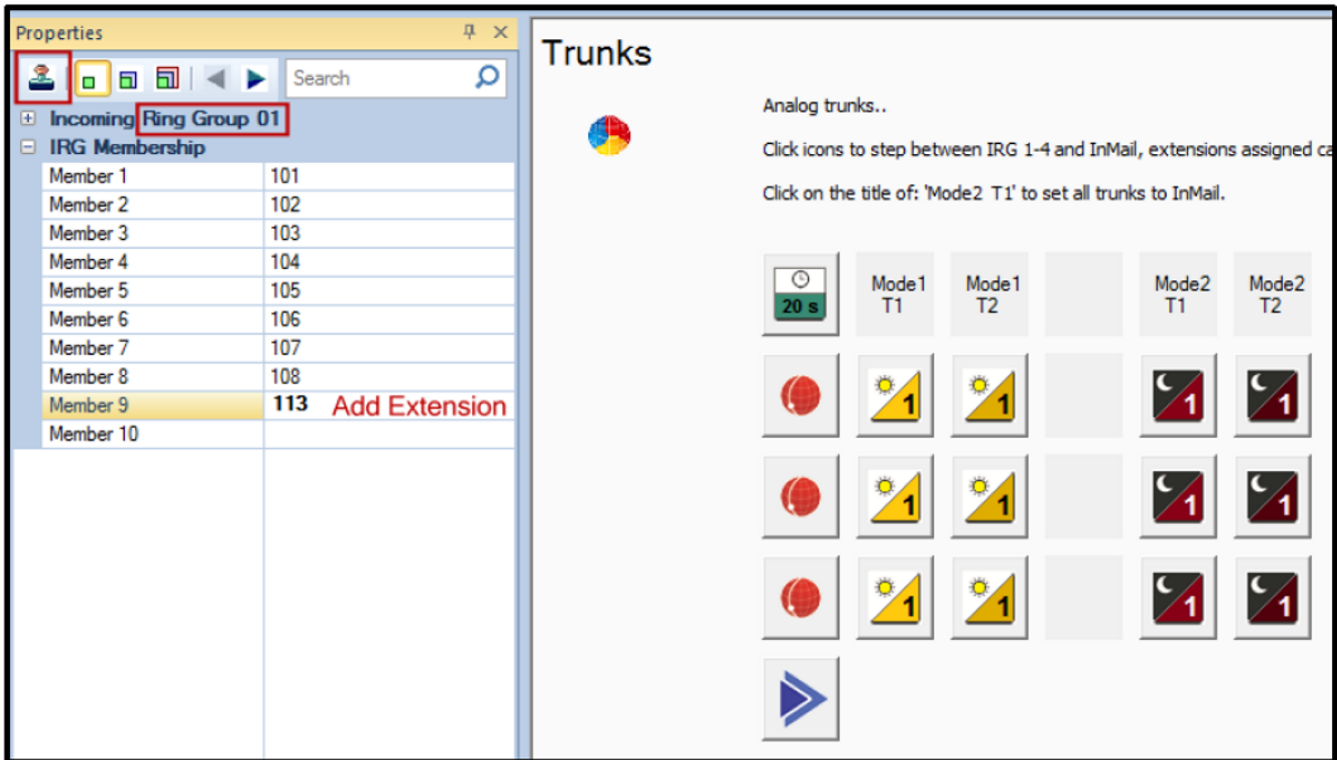
Button	Description
	Timer for how long the call rings at the T1 destination before forwarding to the T2 destination. Click this button to toggle through the times (0, 5, 8, 10, 15, 20, or 30 seconds)
	This button opens the Trunk Properties window for the selected trunk.
	Day and Night mode buttons to assign Ring Group 1 as the destination.
	Day and Night mode buttons to assign Ring Group 2 as the destination.

Table 6-1 Button Descriptions (Continued)

Button	Description
	<p>Day and Night mode buttons to assign Ring Group 3 as the destination.</p>
	<p>Day and Night mode buttons to assign Ring Group 4 as the destination.</p>
	<p>Day and Night mode buttons to assign InMail as the destination. The default InMail settings will send the call to the first Auto Attendant.</p>
	<p>Day and Night mode buttons to assign no destination. This is only applicable to the T2 column.</p>
	<p>Apply button.</p>

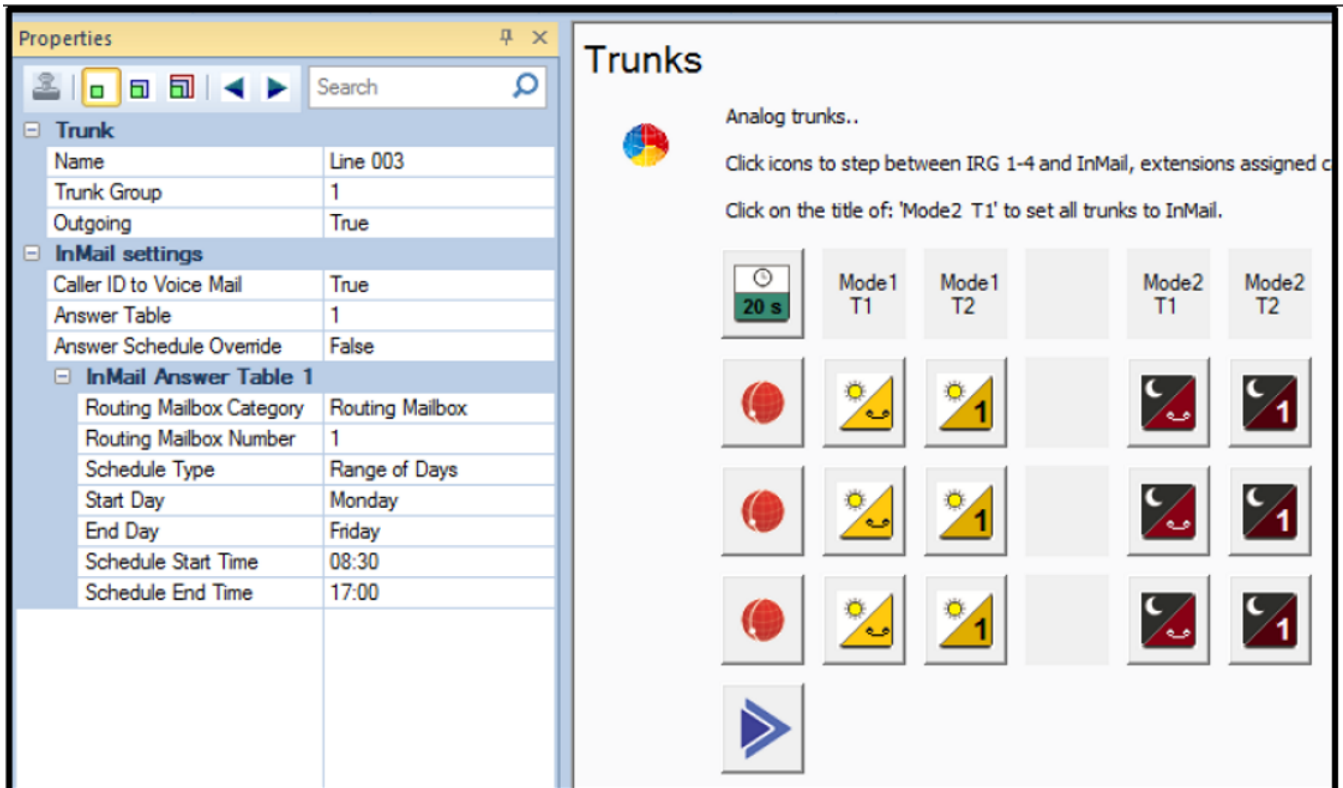
When a Ring Group is selected, the Properties window for that Ring Group will display so that extensions can be added or removed. To add or remove an extension, click in the field to the right of the Member number. Click the **Apply** button to save the change.

Figure 6-16 Example of Trunk Properties Screen



When Voicemail is selected, the Properties window for voicemail will display. This property window applies to all trunks for both Day and Night mode.

Figure 6-17 Example of Voicemail Properties Screen

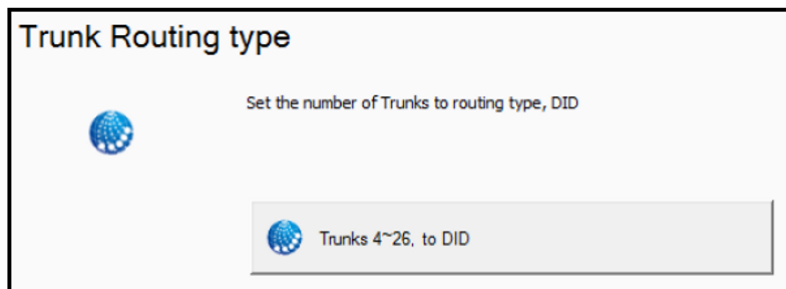


When finished, click the blue arrow at the bottom to continue with the Initial Setup Wizard. Proceed to section [2.4 Completing the Initial Setup Wizard on page 6-23](#).

2.2 ISDN PRI Trunks

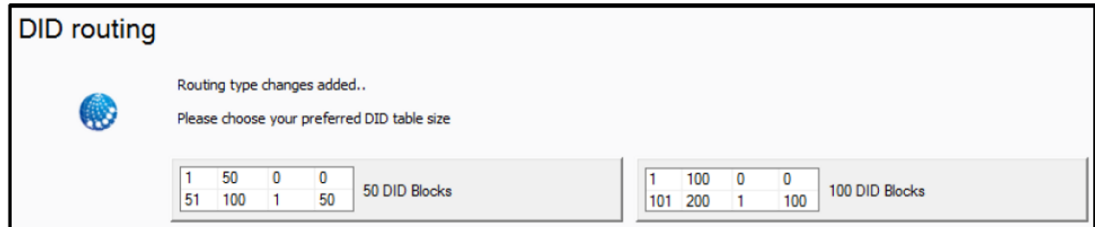
1. Click the Trunks to DID button to continue.

Figure 6-18 Trunk Routing Type Screen



2. Select the number of DID blocks that are required. For less than 50 DID's, choose "50 DID Blocks". For more than 50 DID's, choose "100 DID Blocks". If unsure, choose "100 DID Blocks".

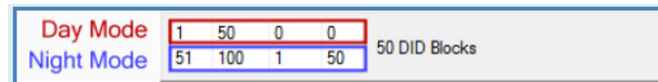
Figure 6-19 DID Routing Screen



Tech Note

The numbers shown on the buttons indicate the DID Translation Table Entries used for Day/Common and Night. "Common" means that a DID will ring the same destination 24 hours a day.

Figure 6-20 Example of DID Matches



For each Mode there are two sets of numbers. In the button above we have:

- Day Mode: 1-50 and 0-0 (0-0 = no setting)
- Night Mode: 51-100 and 1-50

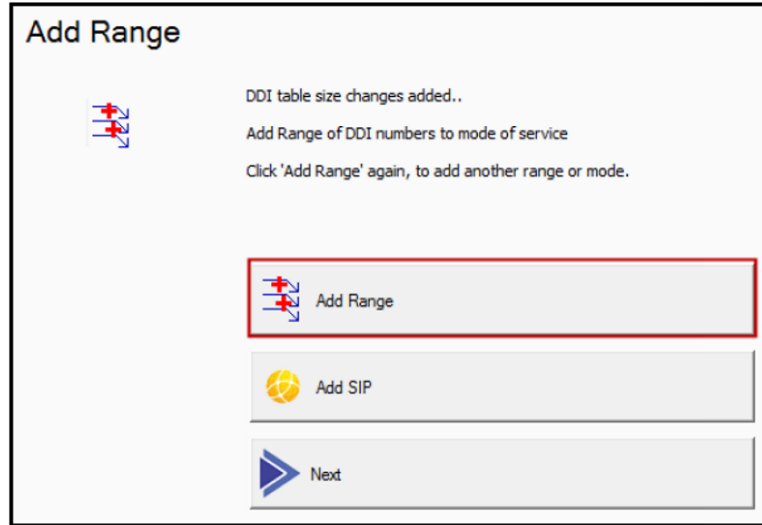
For example, using the button above, DID 3101 should ring extension 101 during the Day and at Night go to the Auto Attendant. DID 3102 should ring extension 102 in Day or at Night. Both 3101 and 3102 are assigned to Day Mode (1-50). 3101 is also assigned to Night Mode (51-100).

During Day Mode the system will look for a DID match from 1-50. Both numbers are there so a match is found.

In Night Mode, the system will first look for a match from 51-100. It will find 3101 and direct the call to the Auto Attendant. It doesn't find 3102 so will next look from 1-50 for a match, which it finds, and 3102 goes to the same destination as it does during Day Mode.

3. Click the Add Range button (refer to [Figure 6-21 Add Range Screen on page 6-15](#)) to configure incoming DID's. This button can be clicked multiple times, for example once for Day Mode and again for Night Mode.

Figure 6-21 Add Range Screen



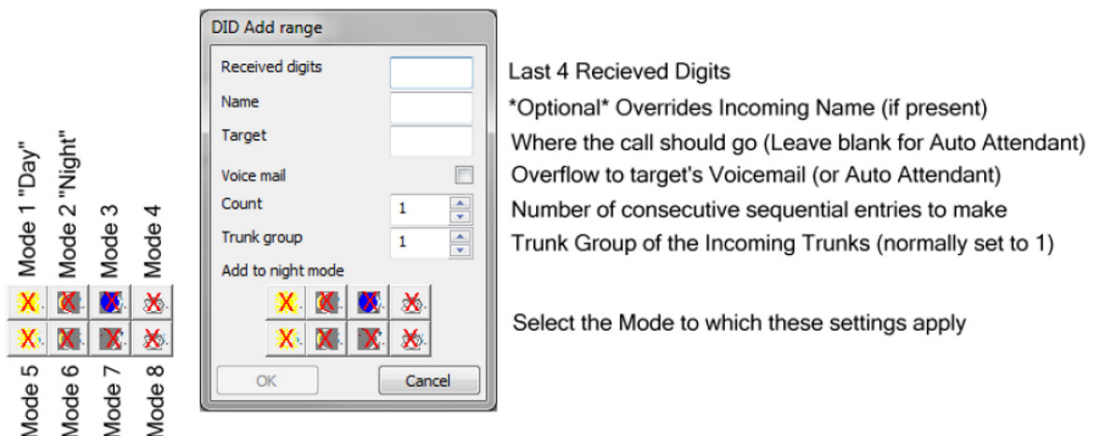
- Another window will open where you can enter the Received DID digits (enter the last four digits) and where you want the DID to go (Target). If there are multiple DID's which are in consecutive sequential order and are going to Target's which are also in consecutive sequential order, then enter the first DID and first Target and set the Count field to the number of DID's. The system will automatically assign the range of DID's.

The buttons at the bottom of the window are the system Operation Modes. Select the Mode which the DID or DID range will operate.



If the DID is going to the same location 24 hours a day, choose the Day button. If the system will not use Night Mode, choose the Day button.

Figure 6-22 DID Add Range



Examples:

Mode 1 "Day"

During the Day, incoming DID's 214-555-3101 through 214-555-3110 should ring at extension 101 through 110 respectively (meaning 214-555-3101 goes to 101, 214-555-3102 goes to 102, etc.). If not answered, the call should overflow to the specific extensions voicemail box.

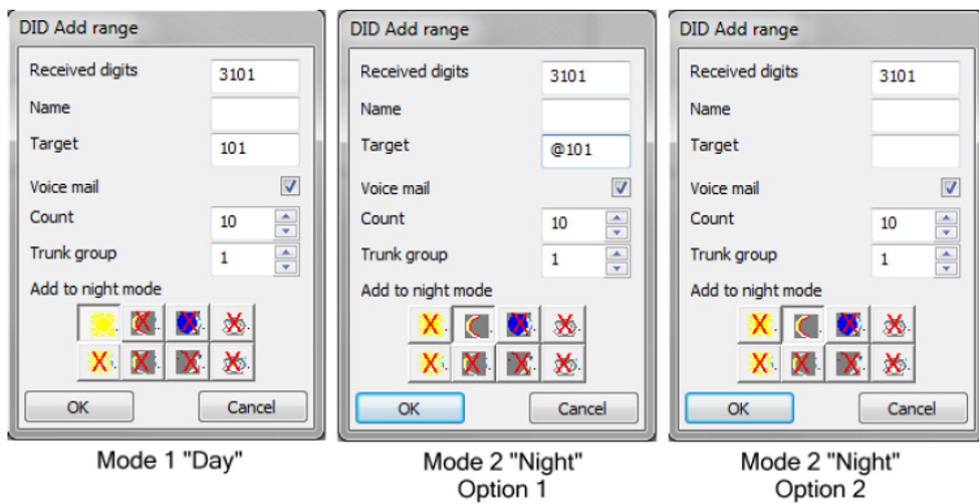
Mode 2 "Night" Option 1

At Night, incoming DID's 214-555-3101 through 214-555-3110 should go directly to the voicemail box for 101 through 110 respectively.

Mode 2 "Night" Option 2

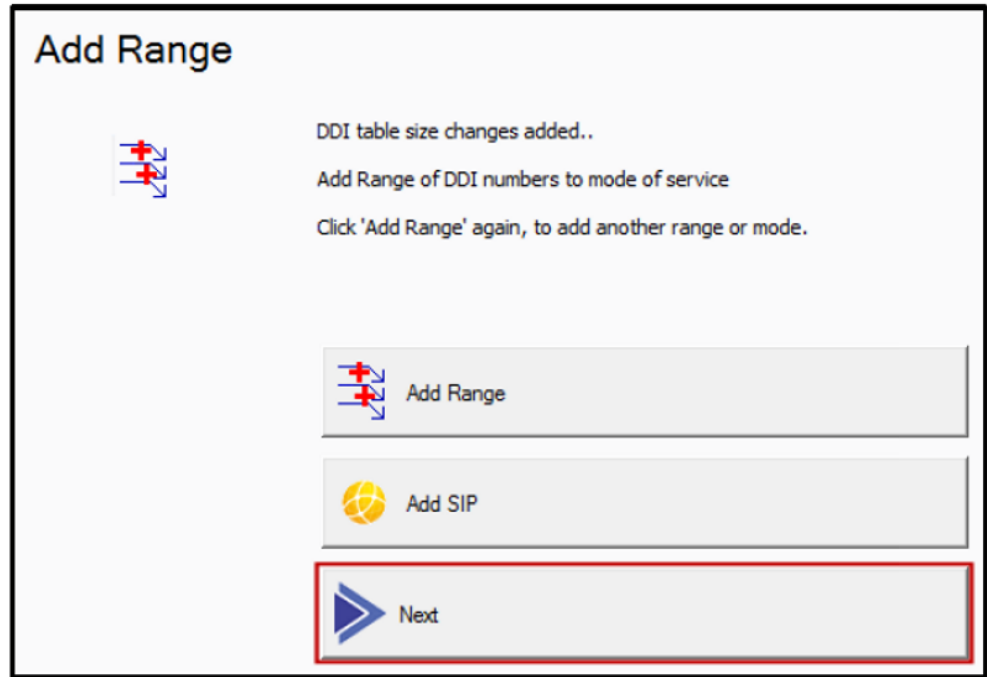
At Night, incoming DID's 214-555-3101 through 214-555-3110 will all go directly to the Auto Attendant.

Figure 6-23 Mode 1 – Mode 2 Options



5. If SIP trunks need to be configured continue with section [2.3 SIP Trunks on page 6-18](#) to add SIP trunks. If all DID's have been added, click **Next** and proceed to section [2.4 Completing the Initial Setup Wizard on page 6-23](#) to complete the Initial Setup Wizard.

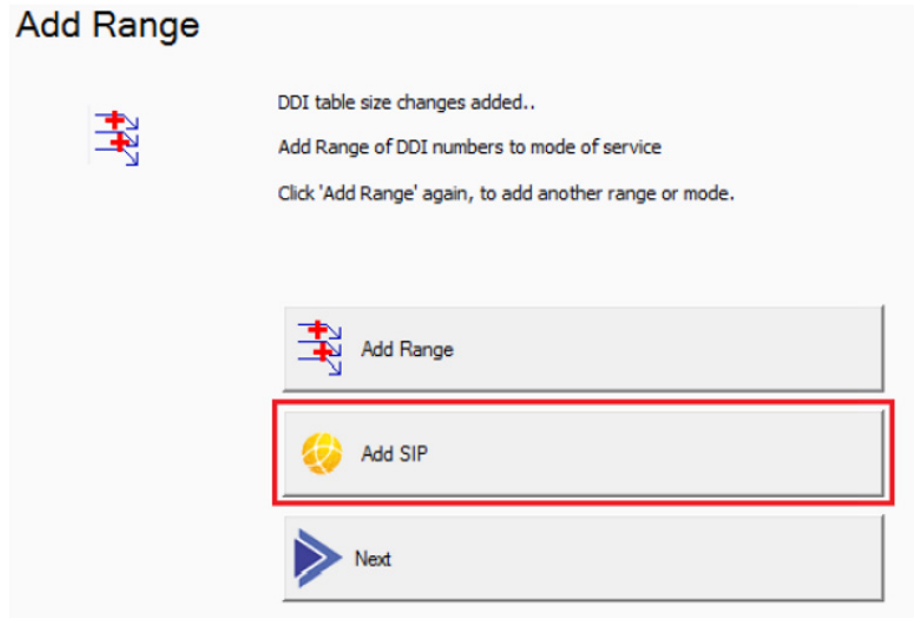
Figure 6-24 Add Range – Next Button



2.3 SIP Trunks

1. Click **Add SIP** button to continue.

Figure 6-25 Add SIP Button



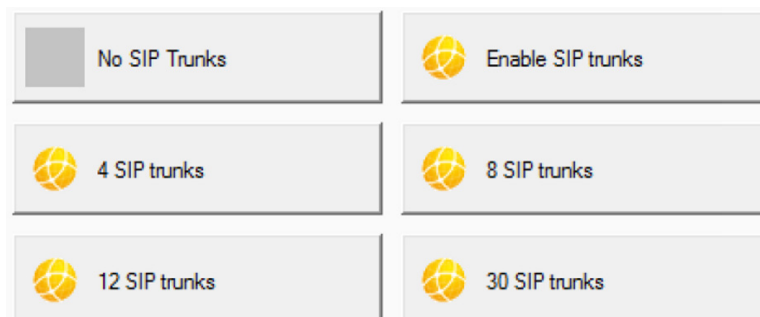
2. Click Enable SIP trunks button.

Figure 6-26 Enable SIP Trunks Button



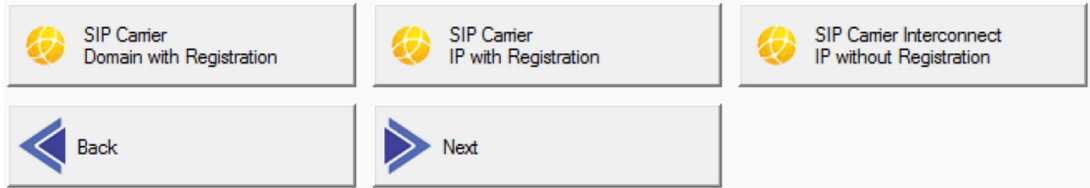
3. Select the number of SIP trunks required.

Figure 6-27 Enable SIP Trunks Button



4. Select the SIP carrier configuration type.

Figure 6-28 SIP Carrier Configuration Type



5. Select the number of DID blocks that are required. For less than 50 DID's, choose "50 DID Blocks". For more than 50 DID's, choose "100 DID Blocks". If unsure, choose "100 DID Blocks".

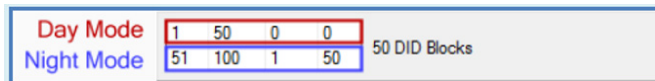
Figure 6-29 DID Routing Screen



Tech Note

The numbers shown on the buttons indicate the DID Translation Table Entries used for Day/Common and Night. "Common" means that a DID will ring the same destination 24 hours a day.

Figure 6-30 Example of DID Matches



For each Mode there are two sets of numbers. In the button above we have:

- Day Mode: 1-50 and 0-0 (0-0 = no setting)
- Night Mode: 51-100 and 1-50

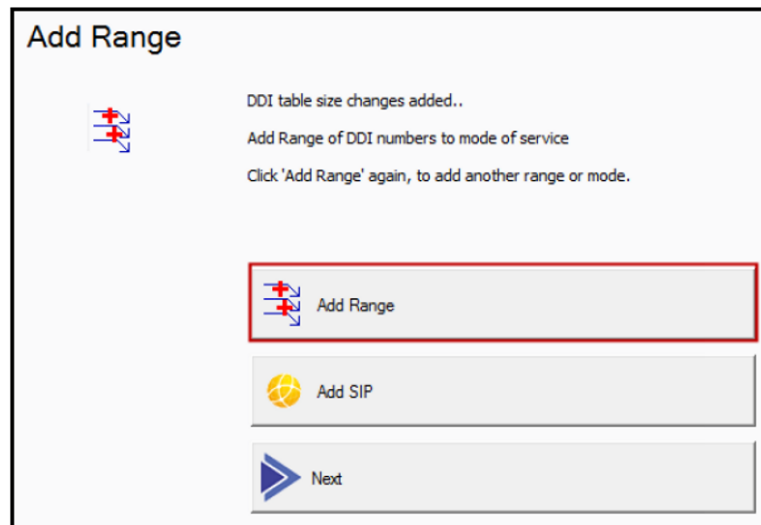
For example, using the button above, DID 3101 should ring extension 101 during the Day and at Night go to the Auto Attendant. DID 3102 should ring extension 102 in Day or at Night. Both 3101 and 3102 are assigned to Day Mode (1-50). 3101 is also assigned to Night Mode (51-100).

During Day Mode the system will look for a DID match from 1-50. Both numbers are there so a match is found.

In Night Mode, the system will first look for a match from 51-100. It will find 3101 and direct the call to the Auto Attendant. It doesn't find 3102 so will next look from 1-50 for a match, which it finds, and 3102 goes to the same destination as it does during Day Mode.

6. Click the Add Range button to configure incoming DID's. This button can be clicked multiple times, for example once for Day Mode and again for Night Mode.

Figure 6-31 Add Range Screen



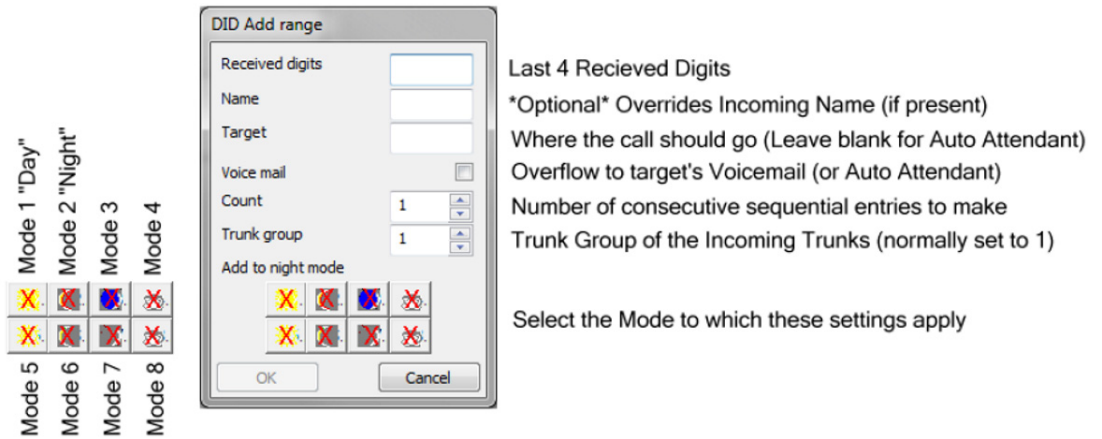
7. Another window will open where you can enter the Received DID digits (enter the last four digits) and where you want the DID to go (Target). If there are multiple DID's which are in consecutive sequential order and are going to Target's which are also in consecutive sequential order, then enter the first DID and first Target and set the Count field to the number of DID's. The system will automatically assign the range of DID's.

The buttons at the bottom of the window are the system Operation Modes. Select the Mode which the DID or DID range will operate.



If the DID is going to the same location 24 hours a day, choose the Day button. If the system will not use Night Mode, choose the Day button.

Figure 6-32 DID Add Range



Examples:

Mode 1 "Day"

During the Day, incoming DID's 214-555-3101 through 214-555-3110 should ring at extension 101 through 110 respectively (meaning 214-555-3101 goes to 101, 214-555-3102 goes to 102, etc.). If not answered, the call should overflow to the specific extensions voicemail box.

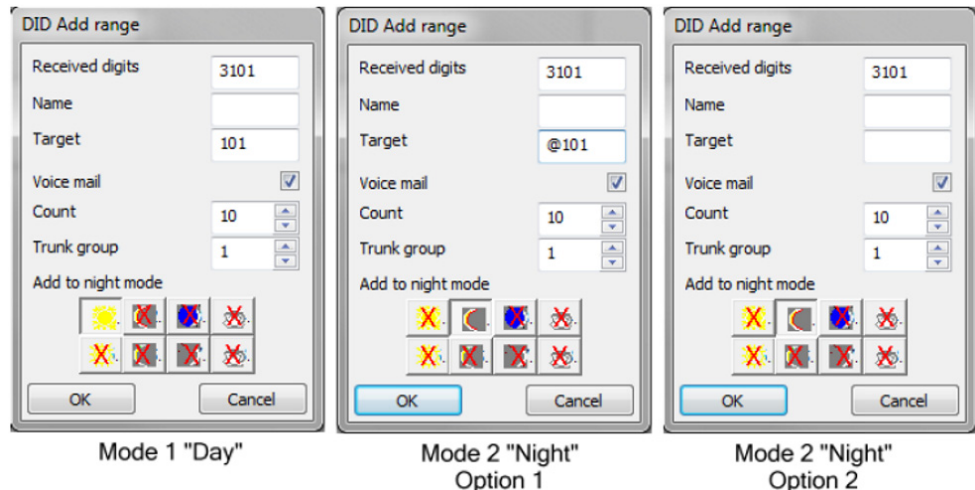
Mode 2 "Night" Option 1

At Night, incoming DID's 214-555-3101 through 214-555-3110 should go directly to the voicemail box for 101 through 110 respectively.

Mode 2 "Night" Option 2

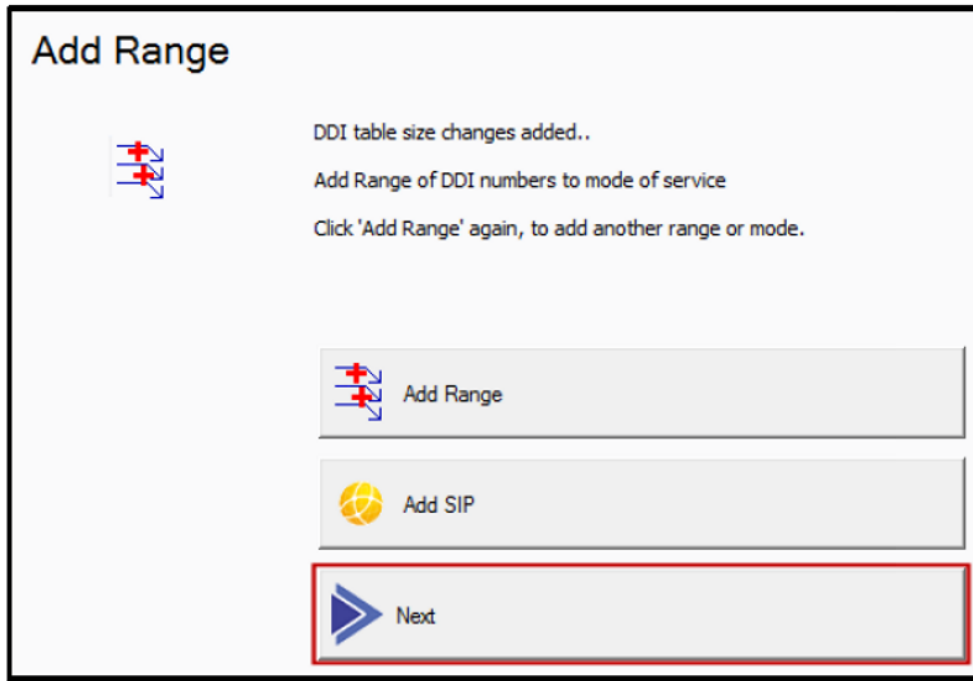
At Night, incoming DID's 214-555-3101 through 214-555-3110 will all go directly to the Auto Attendant.

Figure 6-33 Mode 1 – Mode 2 Options



8. After all DID's have been added, click **Next**.

Figure 6-34 Add Range – Next Button

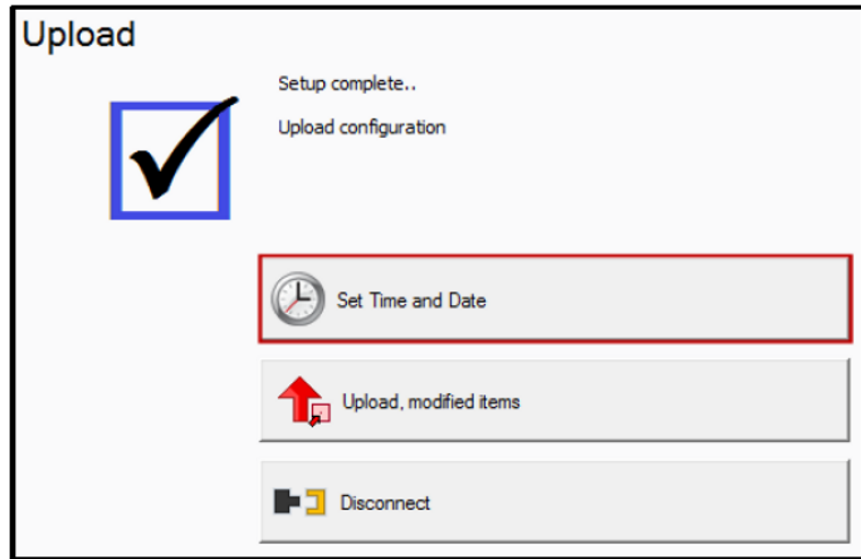


9. Continue to section [2.4 Completing the Initial Setup Wizard](#) on page 6-23 to complete the Initial Setup Wizard.

2.4 Completing the Initial Setup Wizard

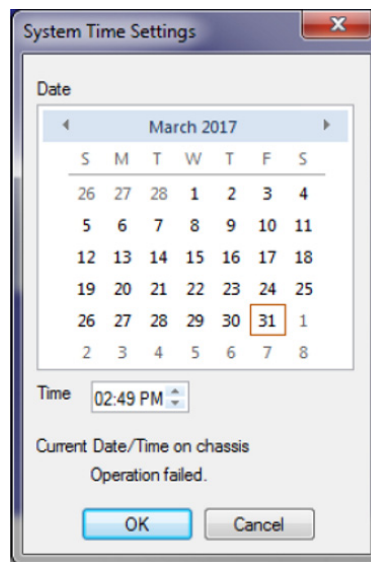
1. Select the **Set Time and Date** button.

Figure 6-35 Time and Date Button



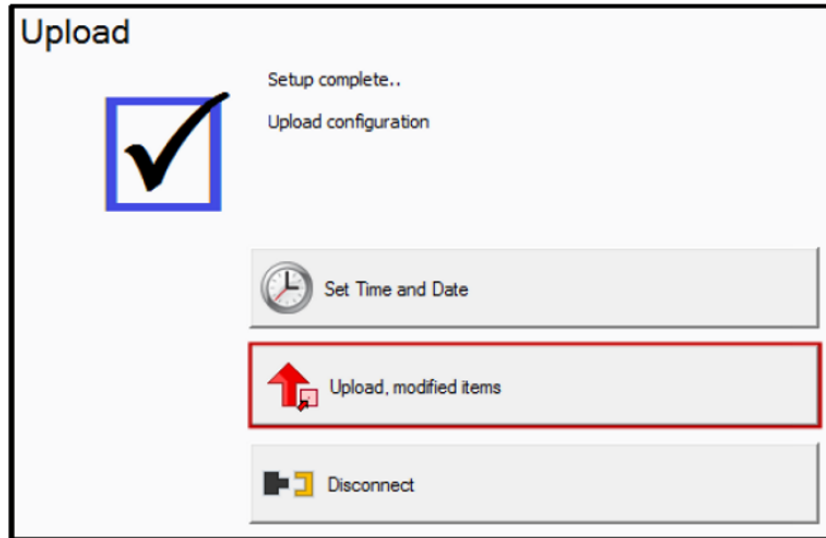
2. The System Time Settings window will appear and will have pulled the current Date and Time from the computer running PcPro. Click **OK** to set it to the SL2100.

Figure 6-36 System Time Settings Screen



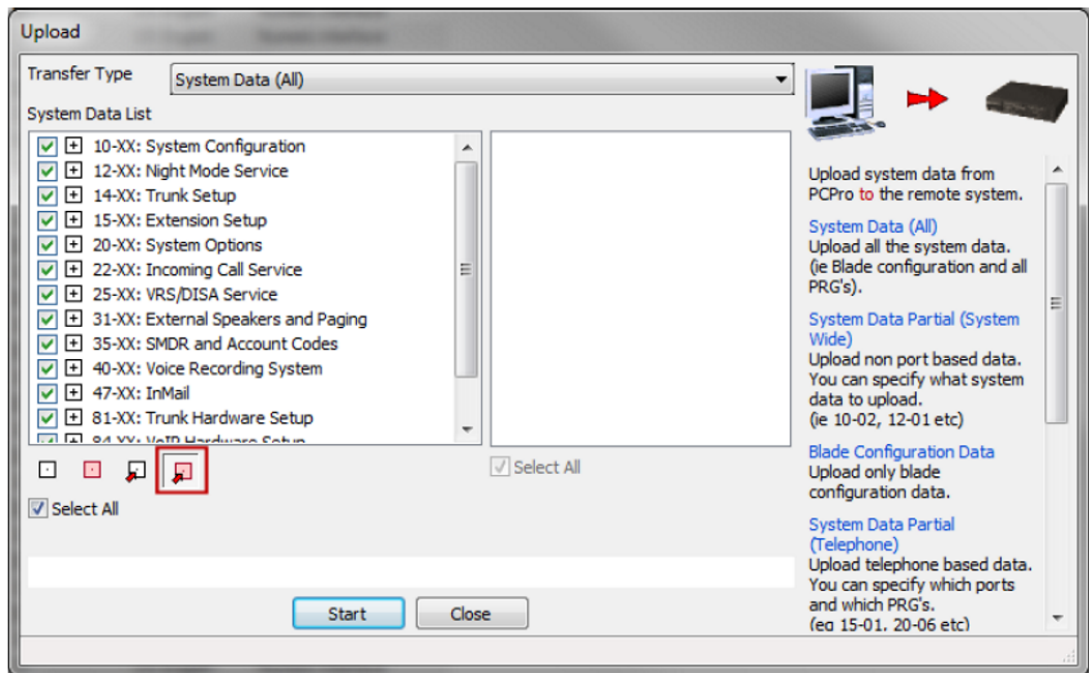
3. Click the **Upload, modified items** button.

Figure 6-37 Upload, Modified Items Screen



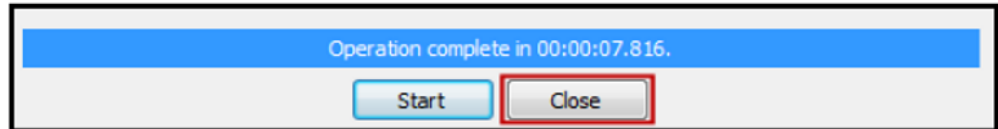
4. In the upload window, click the red box with the red arrow, then click **Start** to upload the database changes.

Figure 6-38 Upload Database Changes



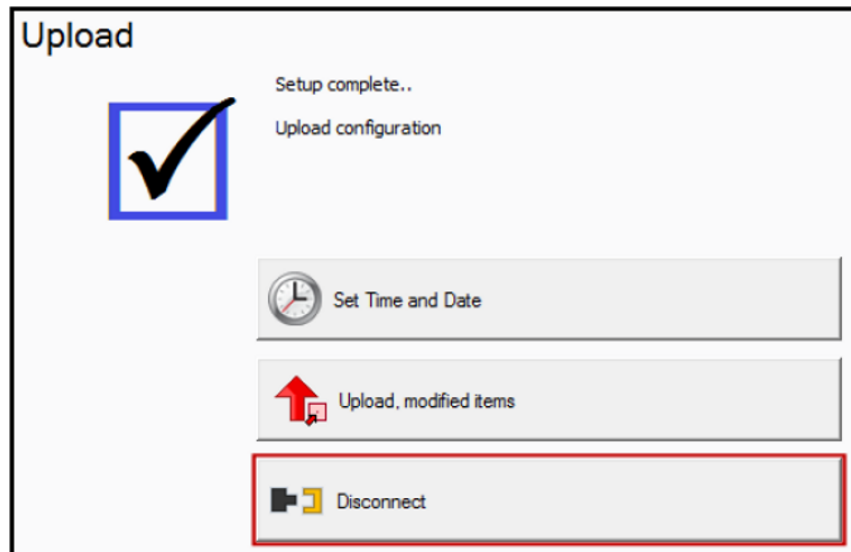
- When “Operation complete” is displayed, click **Close**.

Figure 6-39 Operation Complete Notification



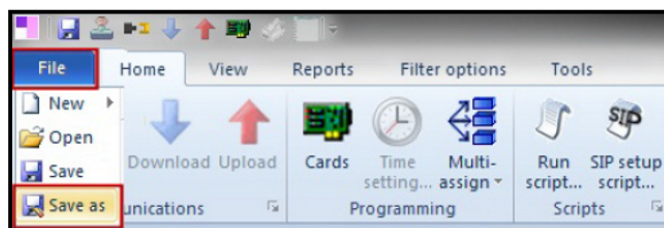
- Click the **Disconnect** button to disconnect from the SL2100.

Figure 6-40 Disconnect Screen



- Save a copy of the database by choosing **File** and **Save As**, giving each site a descriptive file name.

Figure 6-41 Save As



If needed, future program changes can be made using Easy Edit or System Data options in PC Pro for the database saved in step 7 above.



System Data View

Chapter 7

SECTION 1 OVERVIEW

System Data represent systems settings as per the categorization used by main software. This categorization separates settings into System Data items called 'PRGs' (programs). PRGs are identified by their ID and name. The ID and name indicate what settings the System Data is related to. An example of a PRG identifier can be seen below, '10-02' is the ID and 'Location Setup' is the name:

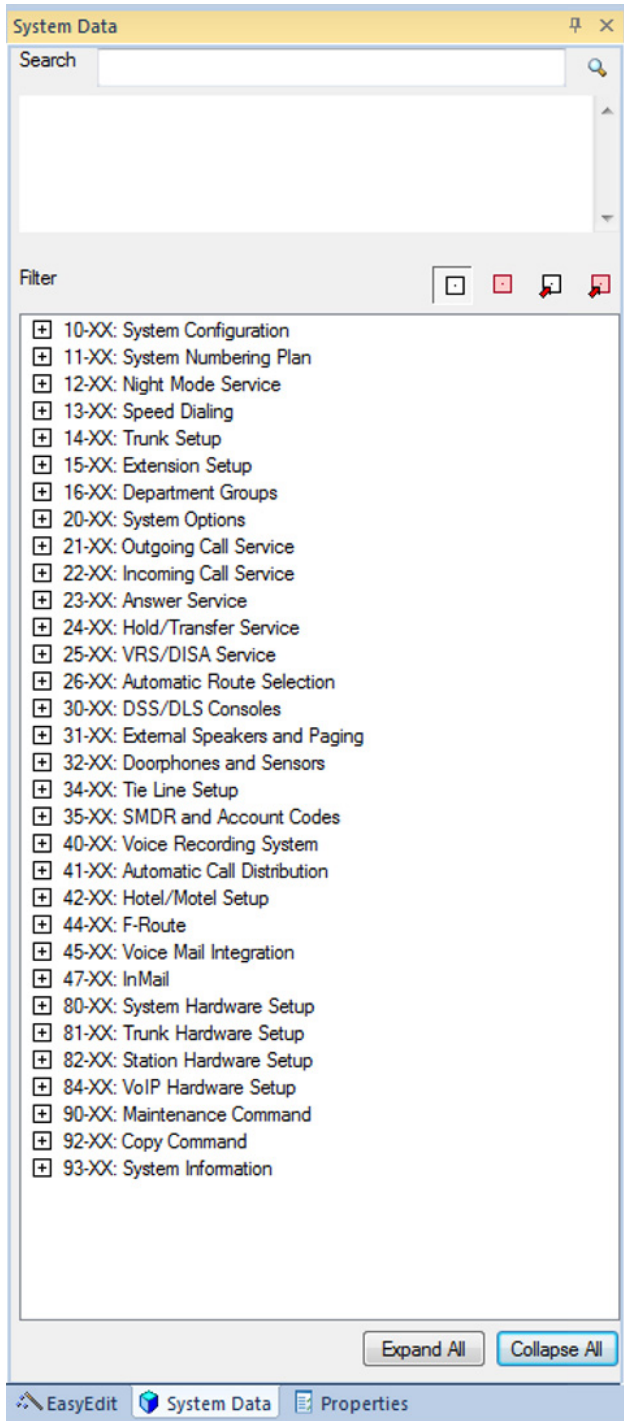
10-02: Location Setup

PRGs are grouped by their relationship into 'PRG Groups'. PRG Groups are identified by their ID and name. The ID and Name indicate what settings the System Data is related to. An example of a PRG identifier can be seen below, '10-XX' is the ID and 'System Configuration' is the name:

10-XX: System Configuration

Since System Data Programming does not group together the programs for a function/feature as with Easy Edit and Standard screens, System Data Programming is intended for advanced users of PCPro who are very familiar with programming a system.

Figure 7-1 System Data Submenu




Auto Hide: Clicking this icon hides the System Data submenu list and docks the tabs on the left side of the screen.

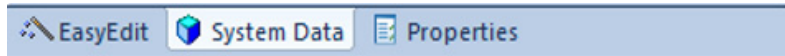


Close: Clicking this icon closes the System Data submenu list and tabs.

SECTION 2 ACCESSING SYSTEM DATA VIEW

To access System Data View, complete one of the following:

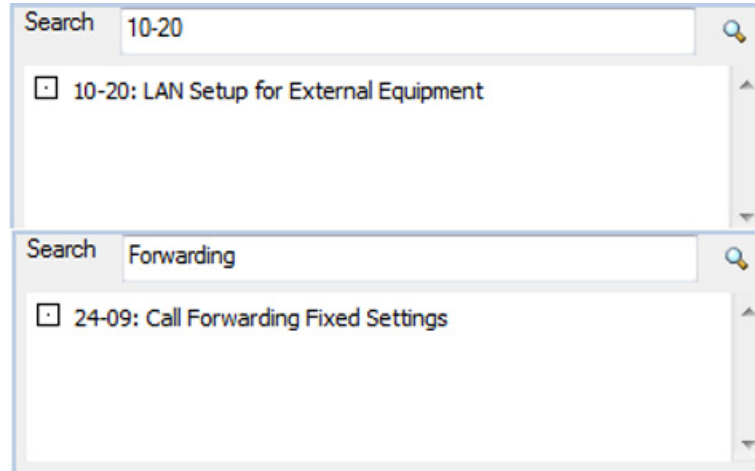
- Select the menu item **View > System Data**.
-- or --
- Select the toolbar icon depicting the blue block  .
-- or --
- Press **F11**.
-- or --
- If the Programming submenu area is currently open, select the **System Data** tab depicting the blue box, located at the bottom on the submenu.



The System Data View Menu appears in the submenu area. System Data is grouped by PRG Groups and ordered numerically by ID. You can use the Expand All to view all of the items under each Program Number or Collapse All to return to the numeric program listing. You can individually expand or collapse a program number pressing + or - .





SECTION 3 SEARCHING FOR A PROGRAM

You can use the search function of Program Data to locate a specific program or use a keyword to find a group of related programs. The example below shows entering a program number to locate a specific program and entering a keyword to locate a group of similar programs. Start the search by either pressing the magnifying glass icon or pressing **Enter**.



SECTION 4 SYSTEM DATA PROGRAM FILTERING

When selecting programs from the system data list, you can select from the following filters:

-  – shows all system data.
-  – shows only unsaved system data.
-  – show only system data that needs to be uploaded.
-  – shows only system data that is unsaved and needs to be uploaded.

To show the level of programming for a feature:

1. Select a program.
2. Press the desired filter and view the filtered programs.



SECTION 5 USING SYSTEM DATA

System Data screens are intended for advanced users who are very familiar with using PCPro. If you are not familiar with PCPro, you should use either the Standard View or Easy Edit. Standard View and Easy Edit are grouped together to help guide you through system data necessary for programming various features of the system.

Figure 7-2 System Data Programming

1) Select system data.

15-01: User Basic Setup

01 - Name: STA 101

02 - Automatic Trunk Line Seizure:

03 - SMDR Printout:

04 - Calling Party Number notification(SSDN Trunk):

05 - The terminal for restriction in Outgoing Disable - on Incoming Line: supervise dial detection

07 - Do-Not-Call:

08 - Call Attendant - Busy Message: 0

09 - Call Attendant - No Answer Message: 0

10 - Calling Party Name notification(SSDN Trunk):

13 - Special ringtone choice: 0

14 - SMDR output of made intercom calls:

15 - SMDR output of answered intercom calls:

16 - Line Load Control Restriction:

Use to define the basic settings for each extension.

2) Modify system data items.

Pull down menu to changed system data item being viewed.

View Previous item.

View Next item.

Filter

Mouse over for help information.

To modify system data:

1. Select a PRG from the System Data View submenu.
2. Modify the desired settings on the screen.
3. Press the **Apply** button to save the changes.

When programming system data, changes are applied:

- when the **Apply** button is pressed.
- when the you change the system data item link.
- when you modify the current system data item filter.
- when you exit System Data View, except when the **Cancel** button is pressed.

Menu and Toolbar Reference

Chapter 8

SECTION 1 OVERVIEW

This chapter provides a table that can be used as a reference between the menus, toolbar icons and keyboard shortcuts. Most functions have more than one method for accessing it. Any sub-menus are listed with their associated menu.

SECTION 2 MENUS AND TOOLBARS

The menu (located at the top of the screen) allows access to a list of functions provided by PCPro. The toolbar provides a graphical icon interface to some of the more commonly used functions.

Figure 8-1 Menu and Toolbar

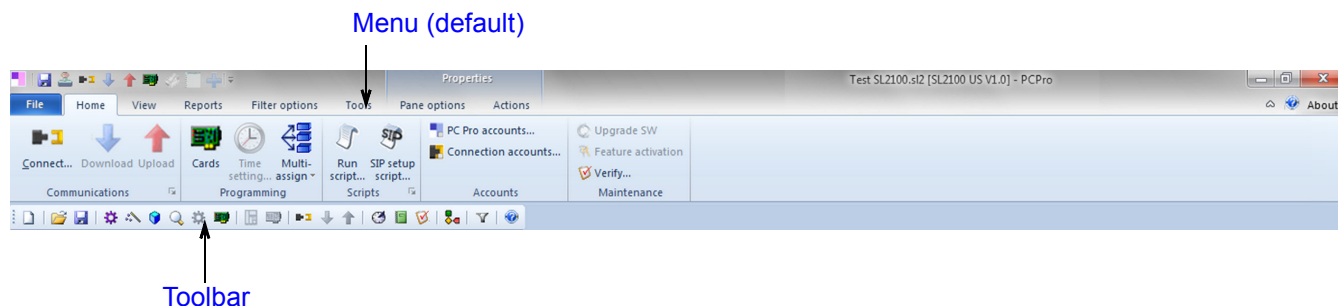



Table 8-1 Menus lists the menu options, provides a brief description of the menu and shows an graphical representation of the menu display. Some menu items have a flyout, indicated by the , which provides additional options for that selection.

Table 8-1 Menus

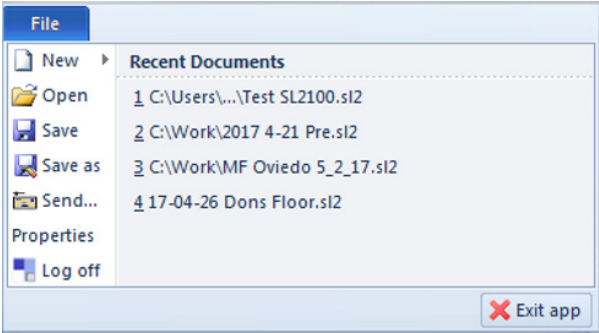
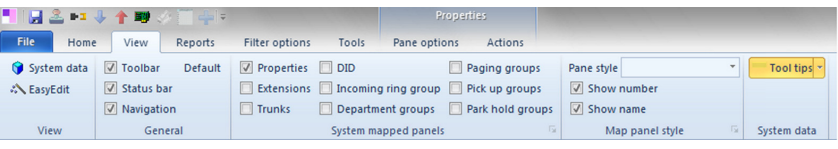
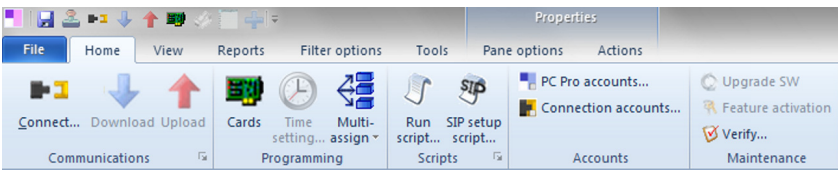
Menu	Description	Menu Display
<p>File</p>	<p>This menu provides access to:</p> <ul style="list-style-type: none"> ○ functions related to creating and saving files ○ sending an e-mail with an active configuration attached ○ displaying the properties for an active configuration ○ allowing users to log off and log in as a different user ○ exiting PCPro 	
<p>View</p>	<p>This menu allows you to:</p> <ul style="list-style-type: none"> ○ show/hide the Toolbar ○ show/hide the Status Bar ○ show/hide the Tool Tips ○ show/hide the Submenu Area 	
<p>Home</p>	<p>This menu provides access to:</p> <ul style="list-style-type: none"> ○ Connect/Disconnect to PCPro ○ Upload/Download files ○ View/edit blade configurations ○ Set the system time ○ Make multiple assignments for Account Codes, Extensions, DID and Function Keys ○ Run Scripts ○ Configure PCPro Accounts ○ PCPro configuration settings ○ Create software files ○ Upgrade software files ○ Feature activation ○ Verify 	

Table 8-1 Menus (Continued)

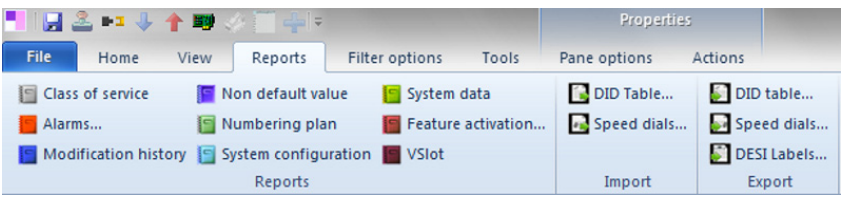
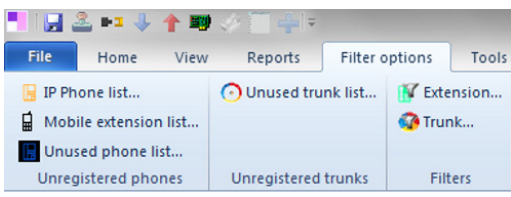
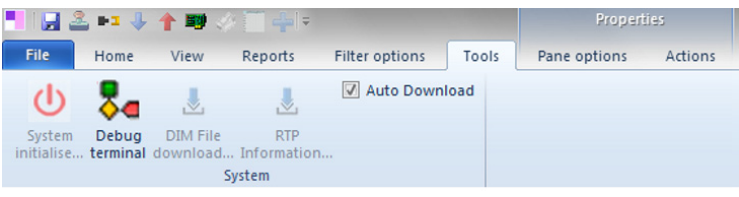
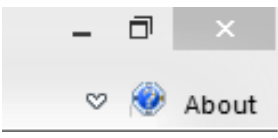
Menu	Description	Menu Display
<p>Reports</p>	<p>This menu allows you to various reports on system settings:</p> <ul style="list-style-type: none"> ○ Class of Service settings ○ Alarm status ○ History of modifications ○ Non default values settings ○ Numbering Plan settings ○ System configuration settings ○ System Data settings ○ Feature Activation ○ VSlot ○ Import DID Tables and Speed Dial numbers ○ Export DID Tables, Speed Dial numbers and DESI Labels 	
<p>Filter</p>	<p>This menu allows you to filter by:</p> <ul style="list-style-type: none"> ○ IP Phone list ○ Mobile Extension list ○ Unused Phone list ○ Unused Trunk list ○ Filter by Extension ○ Filter by Trunk 	
<p>Tools</p>	<p>This menu provides access to:</p> <ul style="list-style-type: none"> ○ Initialize the System ○ Launch the Debug Terminal ○ DIM File download ○ RTP information ○ Auto database download 	
<p>Help</p>	<p>This menu provides access to:</p> <ul style="list-style-type: none"> ○ Display the application version, the version and copyright date for the main software to which PCPro is connected 	

Table 8-2 Menu/Toolbar Hierarchy and Keyboard Shortcut Cross-Reference provides a list of the main menu items listed on the menu bar. Any associated sub-menus are listed in the Sub-menu Level 1, Sub-menu Level 2 and Sub-menu Level 3 columns. If a toolbar icon or shortcut key is available for the menu item, it is listed in the Toolbar Icon and Shortcut Key Sequence columns.

Table 8-2 Menu/Toolbar Hierarchy and Keyboard Shortcut Cross-Reference







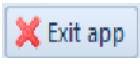
Main Menu Item	Sub-menu Level 1 Item	Sub-menu Level 2 Item	Sub-menu Level 3 Item	Toolbar Icon	Shortcut Key Sequence
File	New	SL2100 North America	SL2100 V1.0		Ctrl + N
	Open...				Ctrl + O
	Save				Ctrl + S
	Save As...				
	Send				
	Properties				
	Log off				
	Exit				

Table 8-3 Toolbar Menus and Sub-Toolbar Menus

Home	Communications	Programming	Multi Assign		Scripts	Accounts	Maintenance	
	Disconnect	Cards (Blades)	Multi Assign	Account Code	Run Scripts	PCPro Accounts	Create Software File	
	Connect	Time setting				PCPro Configuration	Upgrade Software	
	Upload			DID				Feature Activation
	Download			Extension Number				Verify
				Function Key				

View	View	General	System Data	
	System data	Tool Bar	Tool tips	Display (5-10-20-30)
	Standard	Status Bar		
		Navigation		

Report	Reports	Import	Export
	Class of service	DID table	DID tables
	Alarms	Speed dial	Speed dials
	Modification History		DESI Labels
	Non default values		
	Numbering plan		
	System Configuration		
	System data		
	Feature activation		
	VSlot		

Filter Options	Unregistered Phones	Unregistered Trunks	Filters
	IP Phone list	Unused trunk list	Extension
	Mobile Extension list		Trunks
	Unused phone list		

Tools	System
	System initialize
	Debug terminal
	DIM file download

MultiAssign

Appendix A

SECTION 1 OVERVIEW

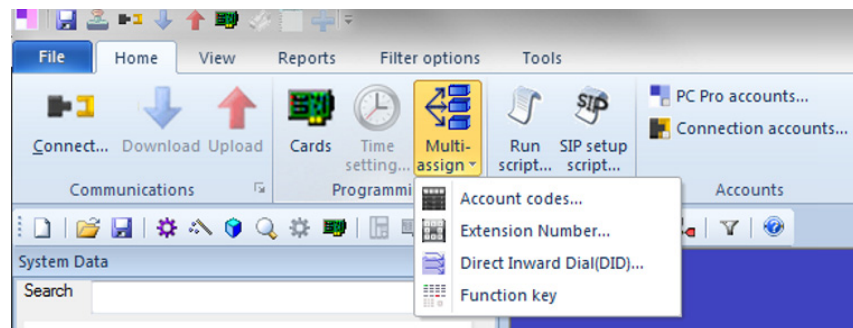
To shorten the time needed to program certain system data, PCPro provides a series of special purpose dialogs. These dialogs enable you to set multiple values with ease.

SECTION 2 ACCESSING MULTIASSIGN DIALOGS

To access the various dialogs available for the MultiAssign option, select **Home > MultiAssign** from the toolbar (refer to [Figure A-1 Accessing the MultiAssign Dialogs](#)). Select the desired option for assigning:

- Account Codes
- Extension Numbers
- Direct Inward Dialing
- Function Keys

Figure A-1 Accessing the MultiAssign Dialogs

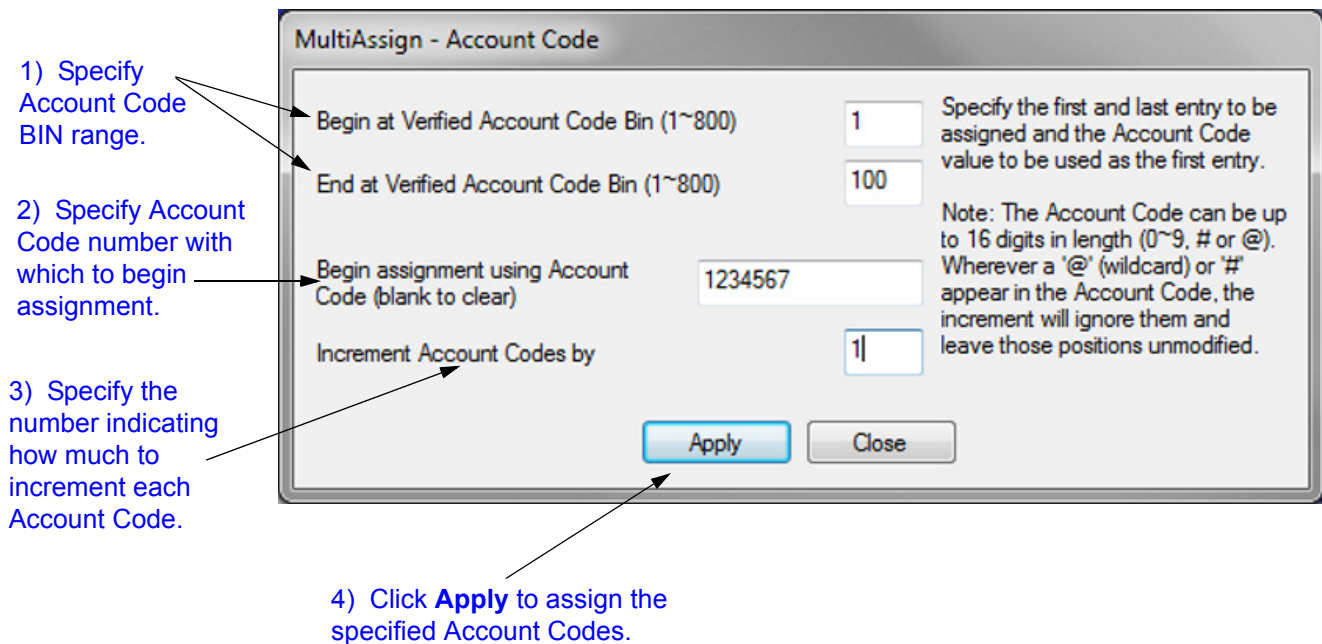


SECTION 3 ASSIGNING ACCOUNT CODES

The Account Codes multi-assignment dialog enables the user to set a range of account codes. This saves valuable time over having to enter each account code individually.

The Account Codes dialog box is accessed by selecting **Home > MultiAssign > Account Codes** from the toolbar.

Figure A-2 MultiAssign Account Codes



To assign a range of account code BINs with numbers:

1. Specify the begin/end BIN range over which to iterate.
2. Specify the account code number to being the assignment.
3. Specify by how much each account code is to be incremented. For example, a value of 2 means accounts codes will increment by 2 for each BIN (i.e. 0001, 0003, 0005...).
4. Click the **Apply** button to trigger the assignment.

Example

To assign BINs 001 ~ 010 with account codes 00001 ~ 00019 in increments of 2:

1. Place a 1 in the *Begin at Verified Account Code Bin* edit box.
2. Place a 10 in the *End at Verified Account Code Bin* edit box.
3. Place 00001 in the *Begin the assignment use the Account Code* edit box.
4. Place 2 in the *Increment Account Codes by* edit box.
5. Click **Apply**.

The result will be...

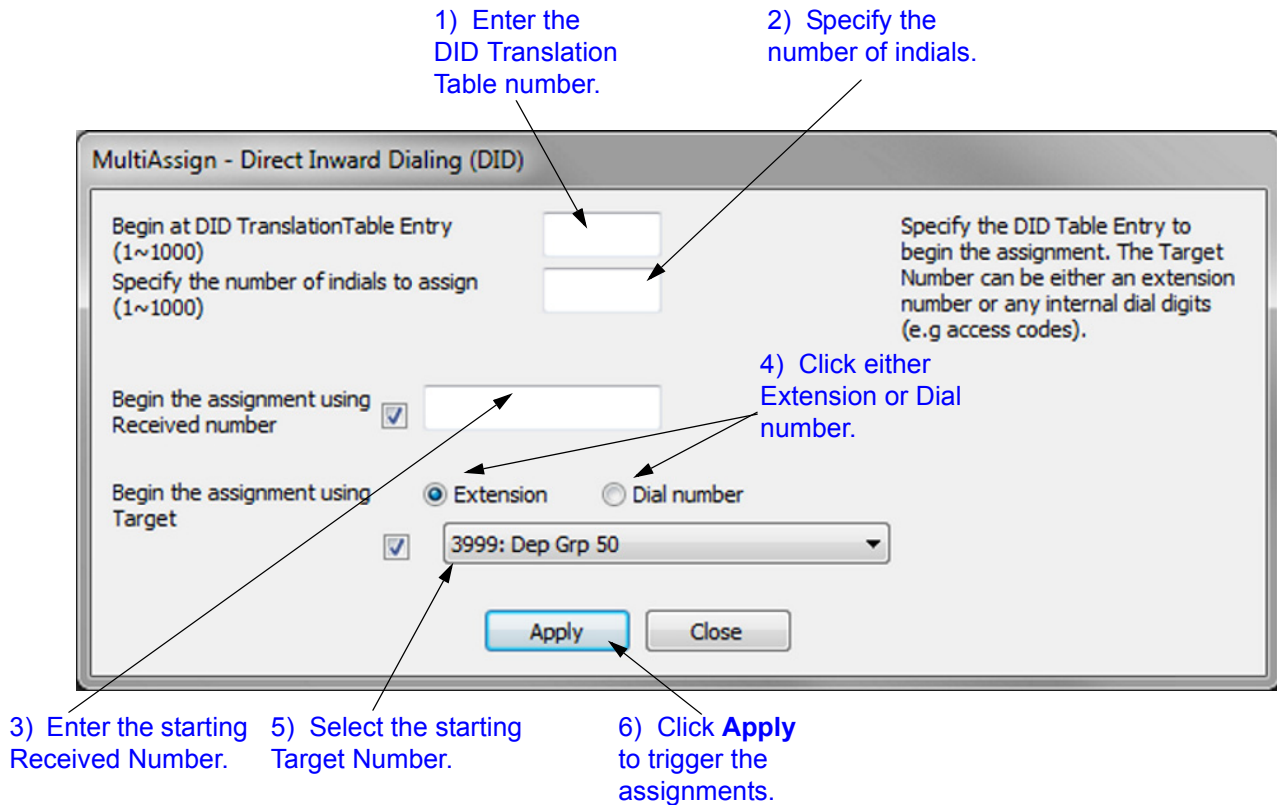
BIN 001 = 00001
BIN 002 = 00003
BIN 003 = 00005
...
BIN 010 = 00019

SECTION 4 ASSIGNING DIRECT INWARD DIAL (DID) NUMBERS

DID allows you to assign multiple DID table entries.

The dialog is found under the menu item **Programming > MultiAssign > Direct Inward Dial (DID)**.

Figure A-3 MultiAssign Direct Inward Dialing (DID)



To assign DID entries:

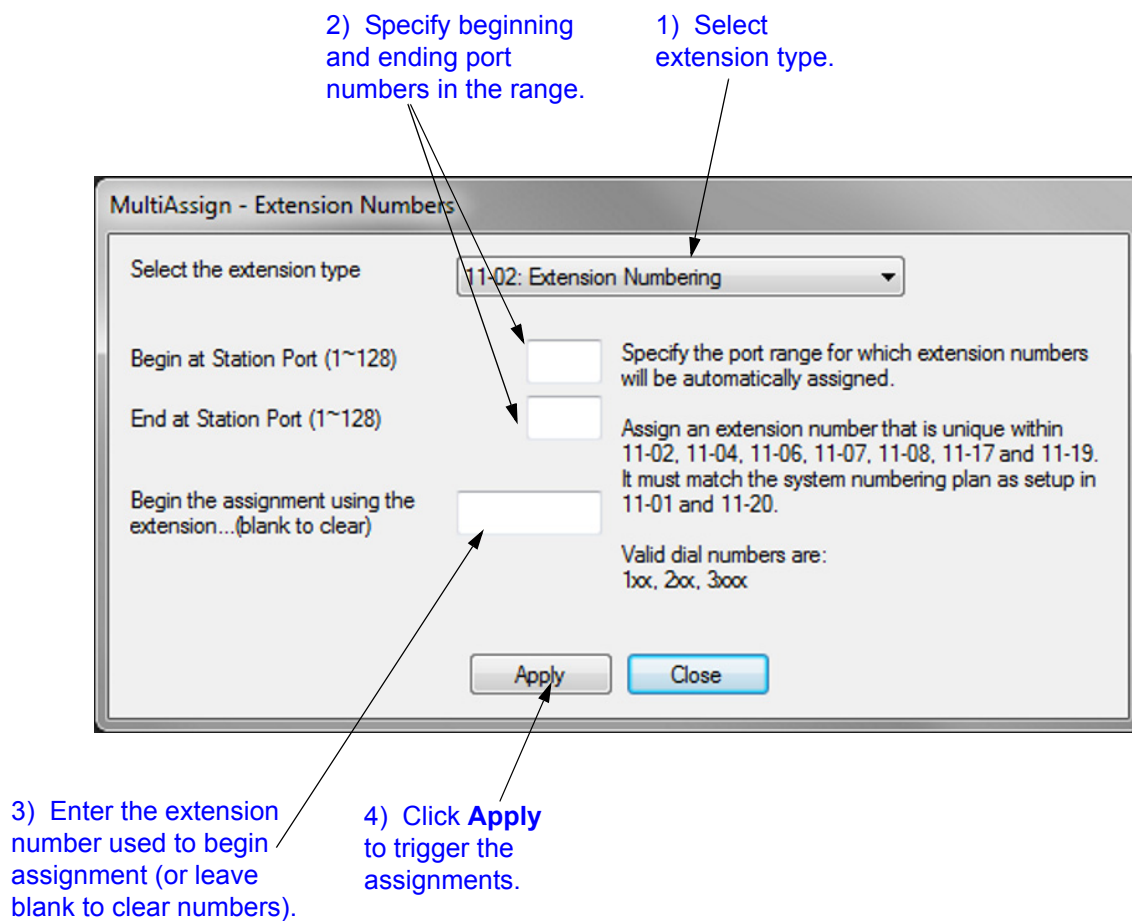
1. Enter the DID Translation Table Entry number to begin the assignment.
2. Specify the number of indials.
3. Enter the starting Received Number.
4. Specify either **Extension** or **Dial number** by clicking the associated button.
5. Use the pulldown menu to select the appropriate Target Number.
6. Click the **Apply** button to trigger the assignments.

SECTION 5 ASSIGNING EXTENSION NUMBERS

The Extension Number multi-assignment dialog enables you to set a range of extension numbers to ports. This saves valuable time over having to enter each extension number individually. In addition, the dialog allows you to set blank extensions, thus providing a convenient way of freeing extension numbers for use by other ports.

The dialog is found under the menu item **Home > Multi-assign > Extension Numbers**.

Figure A-4 MultiAssignment Extension Numbers



To assign a group of ports with extension numbers:

1. Select the type of extensions you want to apply.
2. Specify the port range over which to iterate.
3. Specify the extension number to begin the assignment. (Leave this field blank to clear the extension numbers).
4. Click the **Apply** button to trigger the assignment.

Example

To assign telephone ports 001~099 with extension numbers 301~399:

1. To assign station numbers select *11-01: Extension Numbering* as our extension type.
2. Place a 1 in the *Begin at Station Port* edit box.
3. Place a 99 in the *End at Station Port* edit box.
4. Place 301 in the *Begin the assignment use the extension* edit box.
5. Click **Apply**.

The result is...

Port 001 = Ext 301
Port 002 = 302
Port 003 = 303
...
Port 099 = 399



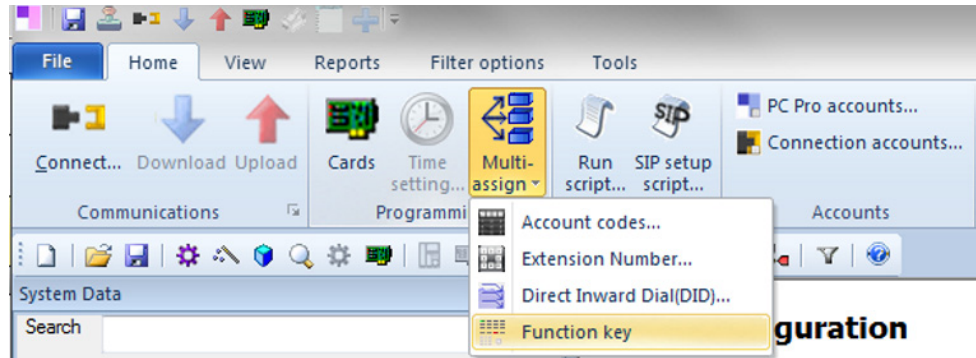
The extension numbers must validate against the numbering plan setup in PRG-11-01. In addition, duplicate extension numbers cannot exist. In this case, free the extension numbers by assigning a blank to the ports using those extension numbers.

SECTION 6 ASSIGNING FUNCTION KEYS

The Function Keys multi-assignment dialog enables you to setup a group of function keys for individual or multiple telephones. The dialog is best used if you need to set up many telephones to have the same set of function keys. The function layout can also be saved as a template to use when needed.

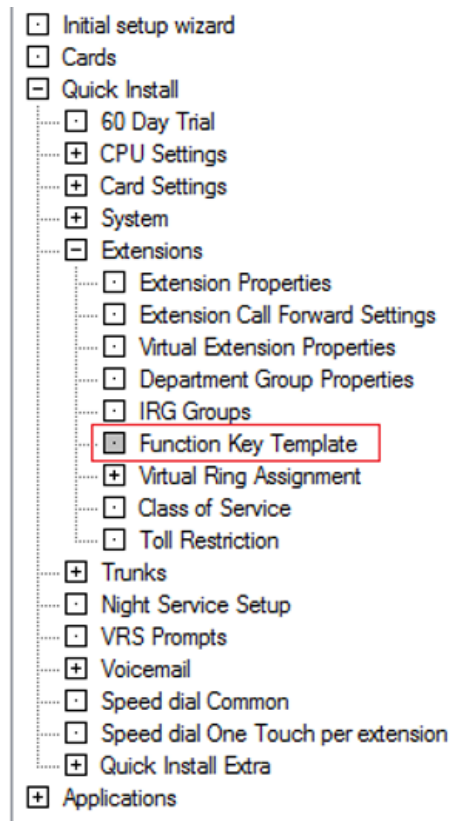
From the main menu choose **Home > Multi-assign > Function key**.

Figure A-5 MultiAssignment Function Keys



From **Quick Install** choose **Extensions > Function Key Template**.

Figure A-6 Function Key Template Selection



Once on the Key Template page the pull down menu will show a list of extensions. When “Show all ports” is enabled every extension the system is capable of supporting is shown. If disabled, only extensions that are actually installed in the system are displayed. The default for this option is **enabled**.

When “Show all keys” is enabled, function keys 1~48 are shown. If disabled, only function keys 1~24 are shown. The default for this option is **enabled**.

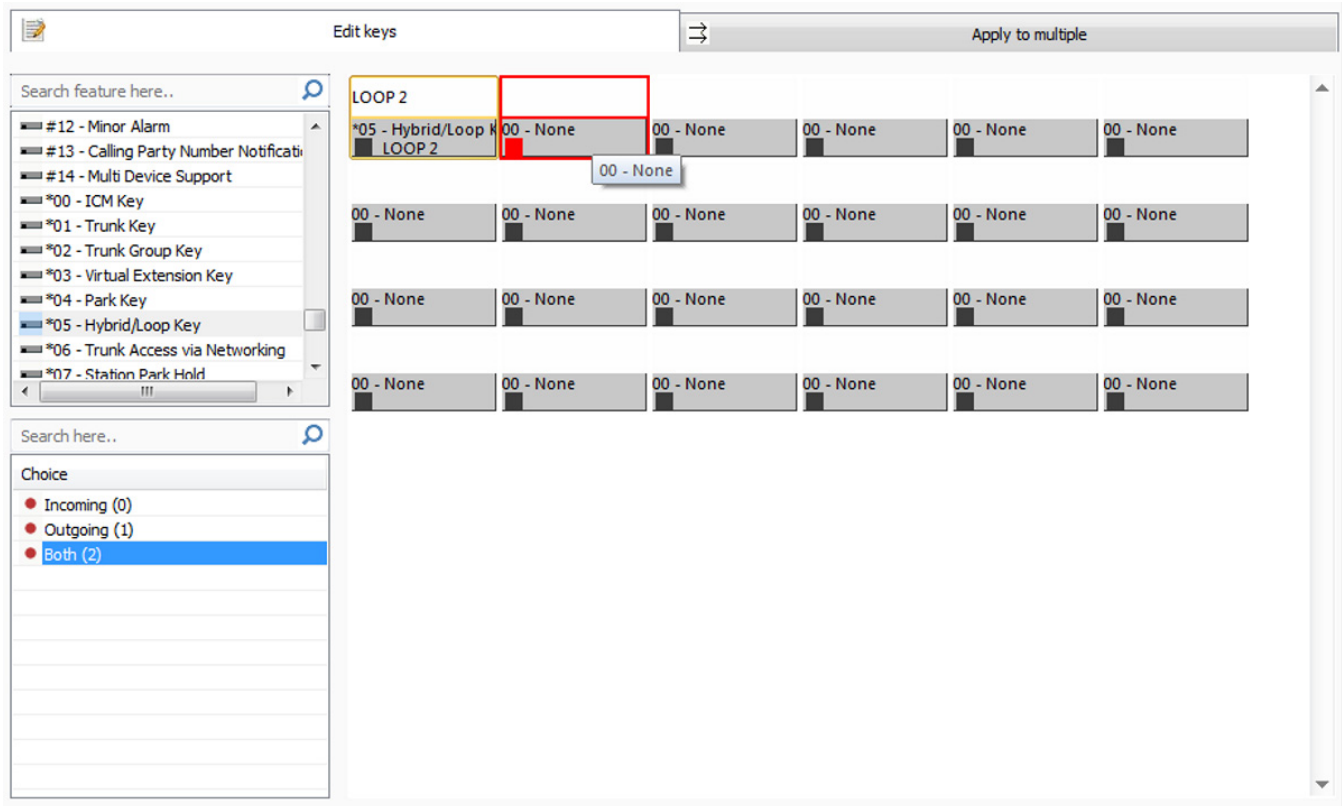
Figure A-7 List of Extensions

	001	101	DTL-24D
	001	101	DTL-24D
	002	102	DTL-24D
	003	103	DTL-24D
	004	104	DTL-24D
	005	105	DTL-24D
	006	106	DTL-24D
	007	107	DTL-24D
	008	108	DTL-24D
	011	111	DTL-24D
	012	112	DTL-24D
	013	113	DTL-24D
	014	114	DTL-24D
	015	115	DTL-24D
	016	116	DTL-24D
	017	117	DTL-24D
	018	118	DTL-24D
	113	213	DTL-24D
	114	214	DTL-24D
	115	215	DTL-24D
	116	216	DTL-24D
	117	217	DTL-24D
	118	218	DTL-24D
	119	219	DTL-24D
	120	220	DTL-24D
	121	221	DTL-24D
	122	222	DTL-24D
	123	223	DTL-24D
	124	224	DTL-24D
	125	225	DTL-24D
	126	226	DTL-24D

Once the extension has been selected, click on the **Edit Keys** tab and assign the Function Keys. To assign a key choose the feature to assign to a key, then click on the key to be assigned. In cases where additional options must first be selected, a menu will be displayed showing the option. The example below shows the options when assigning Hybrid/Loop keys.

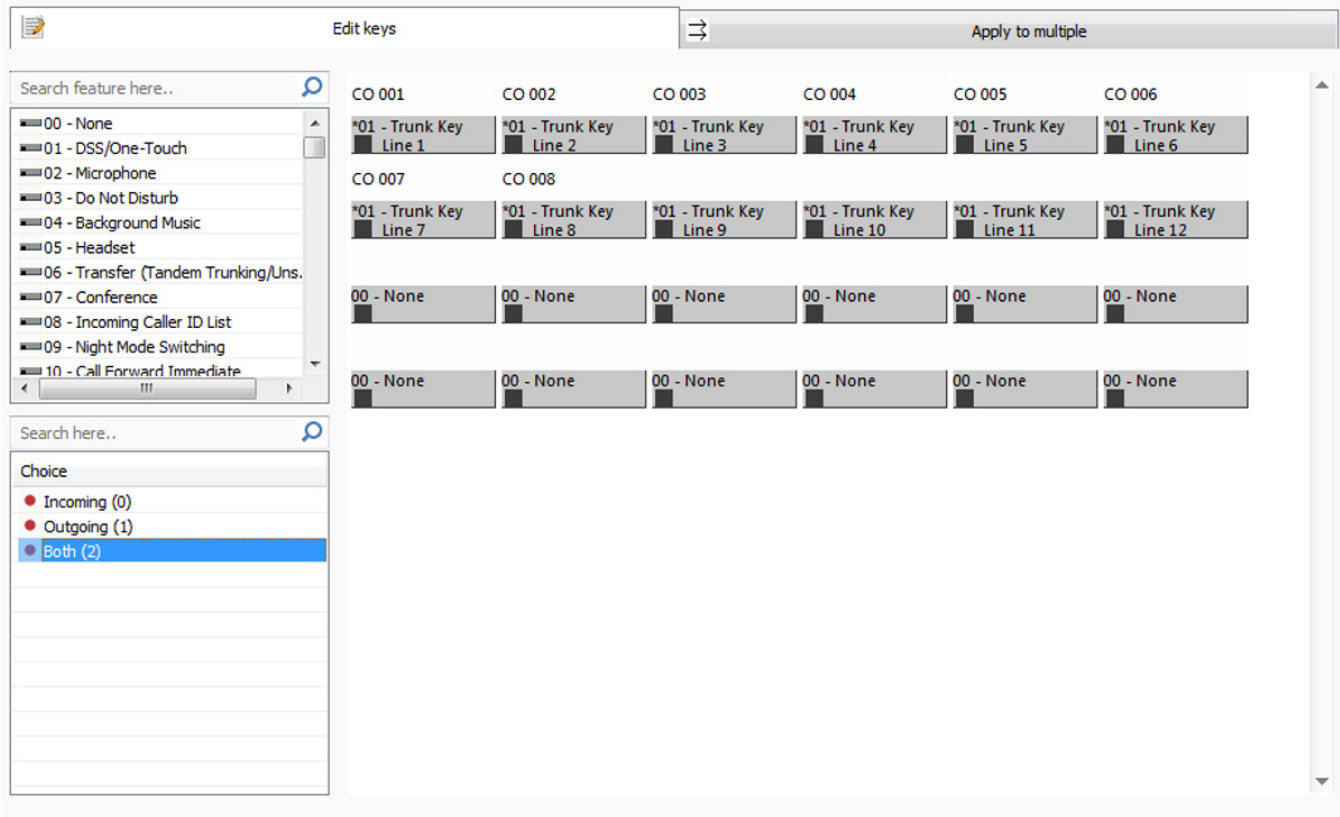
Here you see that Hybrid/Loop key was selected from the function key options, in the Choice box Both (2) was selected, then line key one was clicked on. At that point line key one is selected. You can continue to click on subsequent function keys until the desired Hybrid/Loop keys have been assigned.

Figure A-8 Assigning Hybrid/Loop Keys



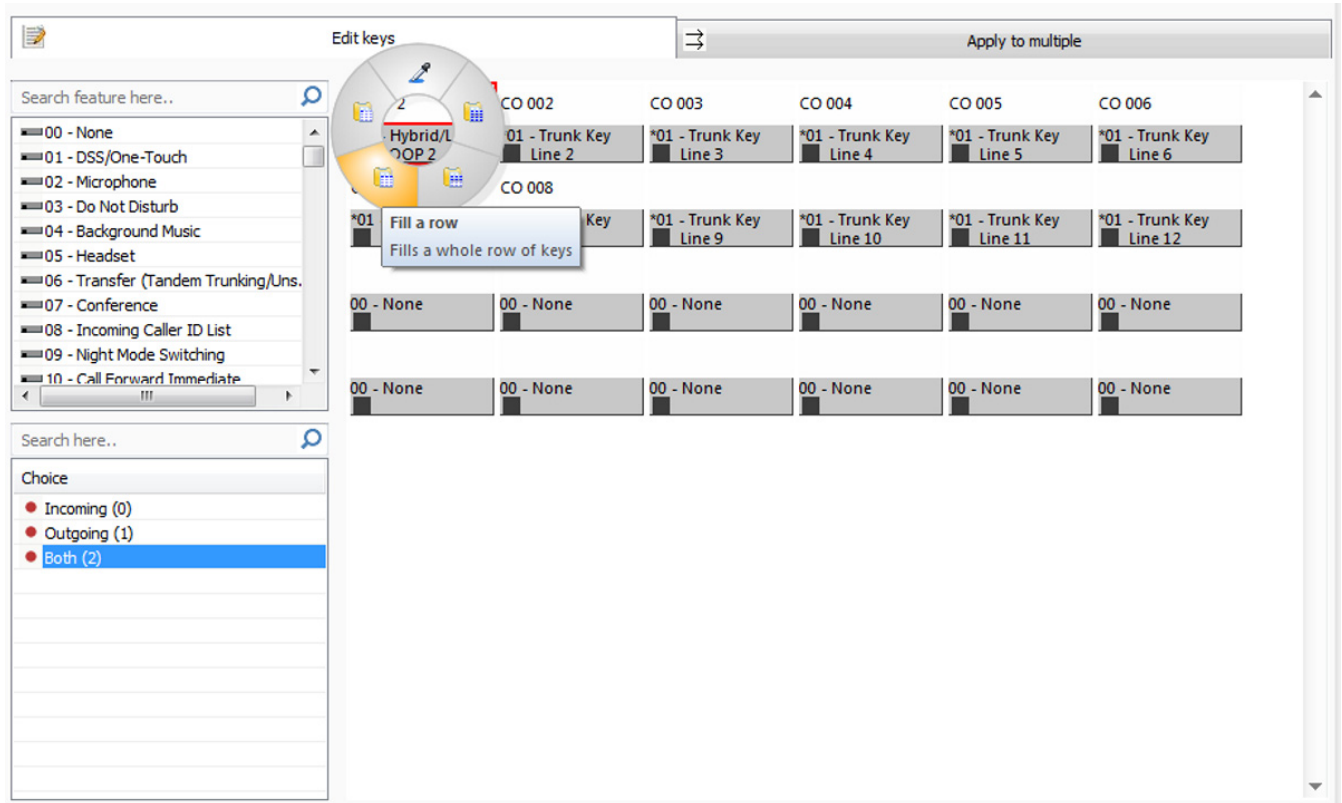
You can also choose to assign an entire row with Hybrid/Loop keys by right clicking on a function key and choosing "Fill a Row". PC Pro will start on which ever line key you select and fill to the end of that row. For this example a default extension will have the top row assigned as Hybrid/Loop keys and the second row will be unassigned.

Figure A-9 Fill a Row Example



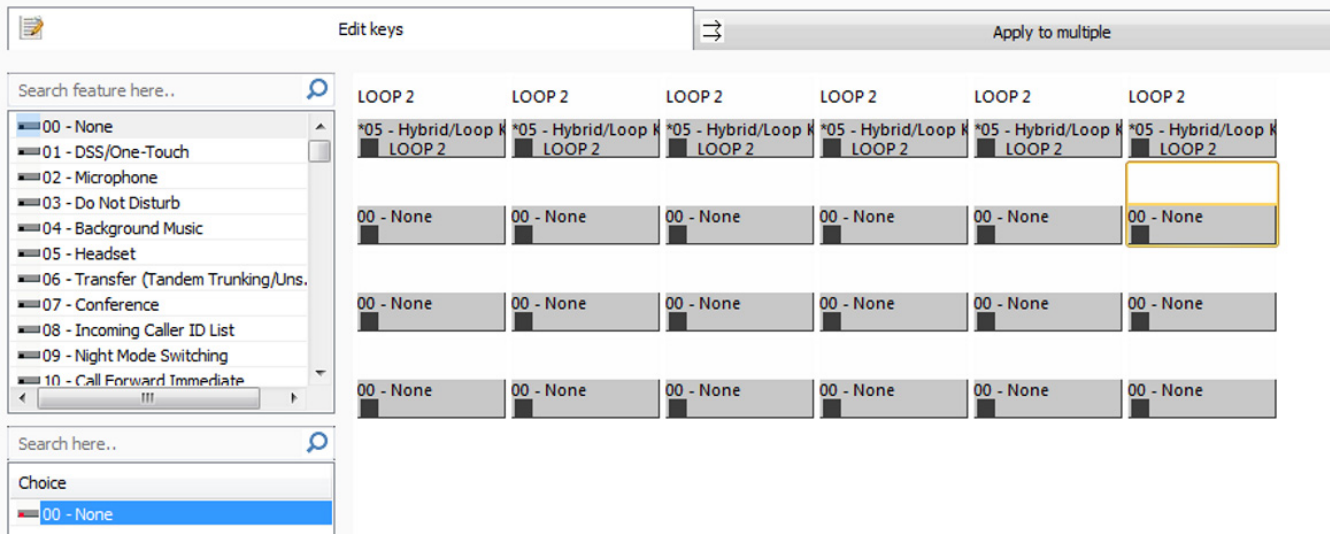
After selecting a Hybrid/Loop Key, the first line is right clicked. Then **Fill a Row** is selected.

Figure A-10 Fill a Row Example



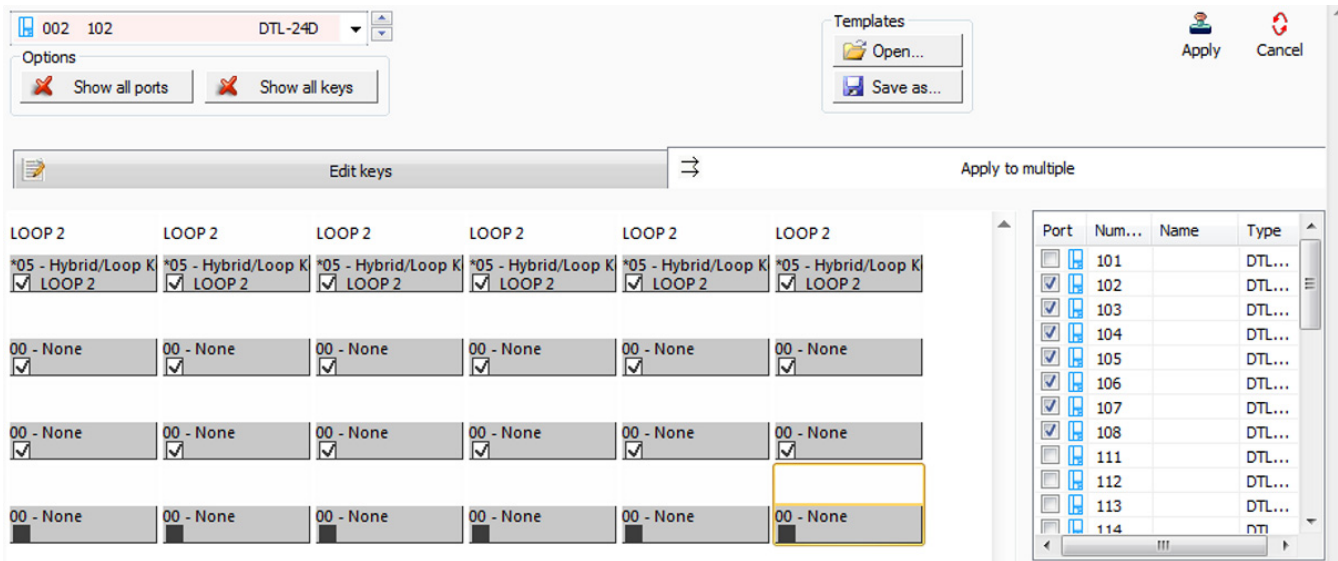
The first row has now been assigned. Next the “none” option was selected, line key 7 was right clicked on, and “Fill a Row” was chosen from the displayed options.

Figure A-11 Fill a Row Example



Using the **Apply Multiple Tab** you can copy the line key settings from the selected extension to other extensions.

Figure A-12 Apply Multiple



SECTION 7 SAVING A FUNCTION KEY TEMPLATE

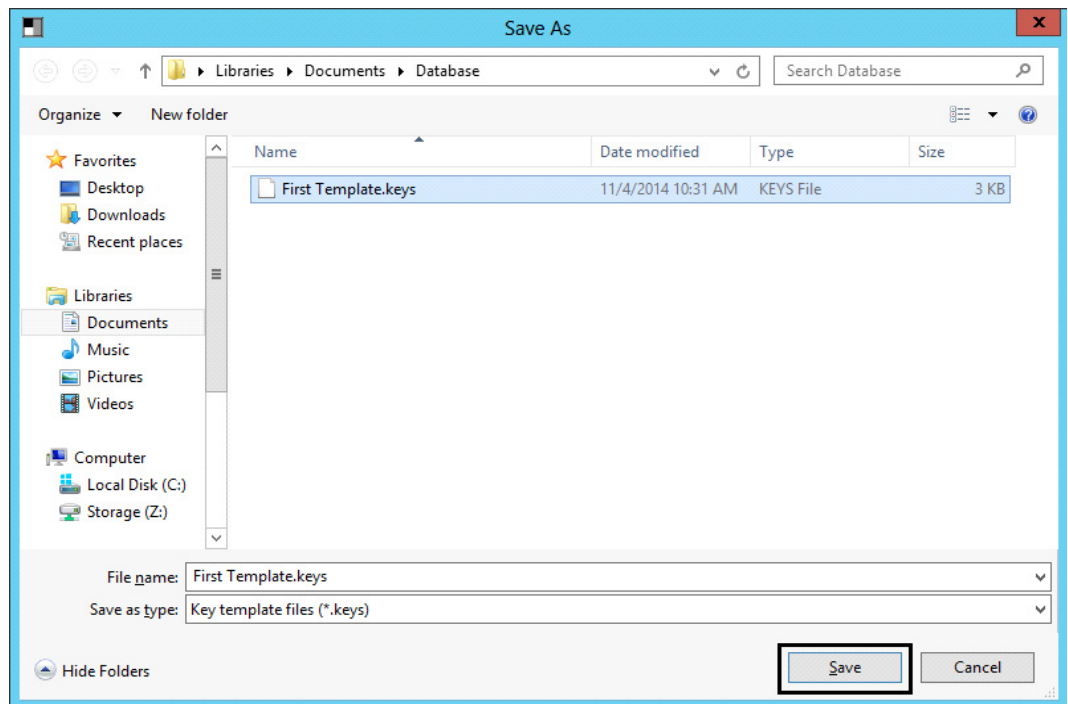
PC Pro allows an extension’s function key configuration to be saved as a template to be used later. To save a configuration as a template go to **Easy Edit** choose **Basic Setup > Extensions > Key Assignment > Function Key Template**. Once there, you can choose the extension to be used as the template from the pull down menu.

Figure A-13 Saving a Function Key Template



Next click on the “Save As” icon, browse to the location on the support PC to store the template file, name the file and click **Save**.

Figure A-14 Saving a Function Key Template



SECTION 8 OPENING A SAVED FUNCTION KEY TEMPLATE

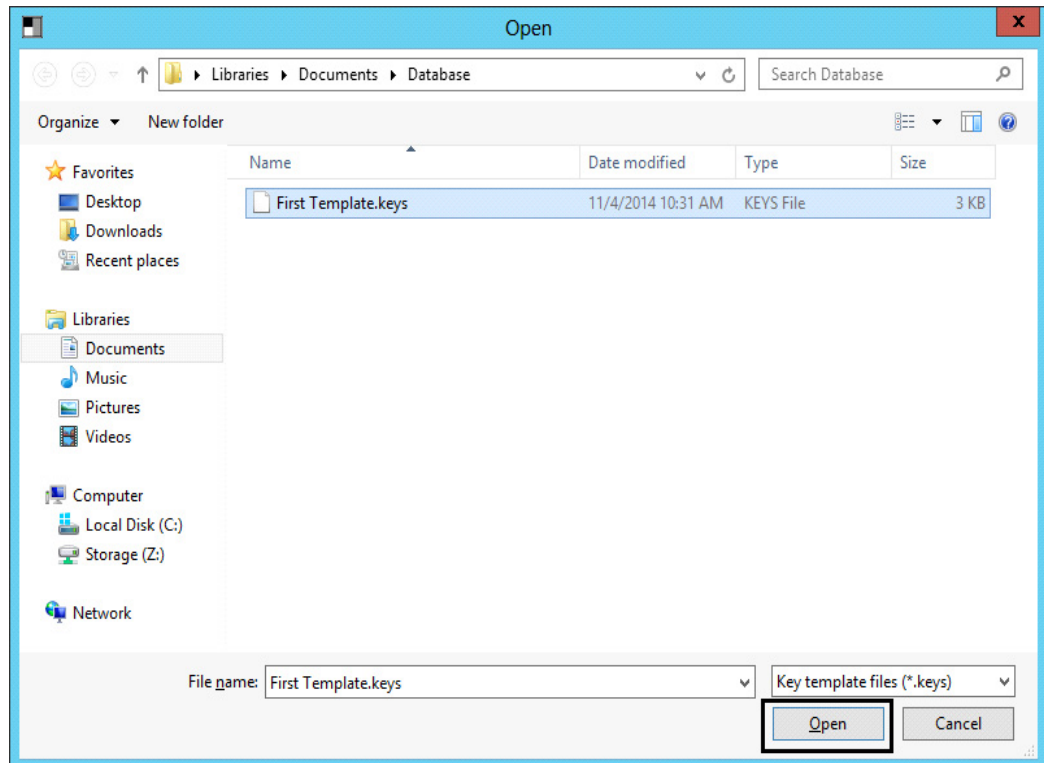
PC Pro allows an extension’s function key configuration to be saved as a template to be used later. To open a saved configuration template, go to **Easy Edit** choose **Basic Setup > Extensions > Key Assignment > Function Key Template**. Once there, click on the **Open** icon.

Figure A-15 Opening a Saved Function Key Template



Next browse to the location on the support PC where the template file is stored, select the file and click **Open**.

Figure A-16 Opening a Saved Function Key Template



Communications

Appendix B

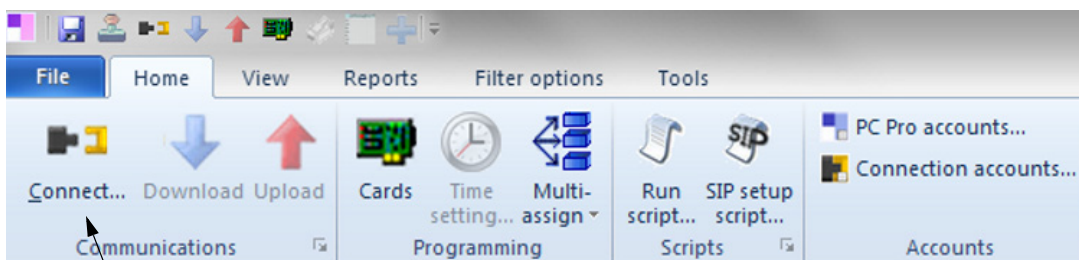
SECTION 1 OVERVIEW

PCPro provides methods for the application to communicate with the chassis. PCPro can connect to the chassis to allow you to download/upload data, to perform a system initialization, to update firmware, to activate features and to backup a database to or restore a database from a flash key.



SECTION 2 CONNECT/DISCONNECT

Connect/Disconnect makes or breaks a connection session between PCPro and a chassis. This option changes its functionality depending on the connection status of PCPro. [Figure B-1 Connect/Disconnect Status](#) shows how the connection status is indicated on the toolbar.

Figure B-1 Connect/Disconnect Status



Connect/Disconnect Status

	Disconnected	Signifies that PCPro is not connected to the chassis.
	Connected	Signifies that PCPro is currently connected to the chassis.

2.1 Accessing Connection Dialog

Connecting PCPro to a system is done within the Connect dialog. While PCPro is disconnected from a system, access the Connect dialog using one of the following three methods.

- Select the menu item **Home:Communications > Connect/Disconnect**.
-- or --
- Select the icon depicting the disconnected black and yellow plugs .
-- or --
- Press **F5**.

2.2 Connecting PCPro to the System

Use the Connect dialog box to specify connection parameters to connect to the system.

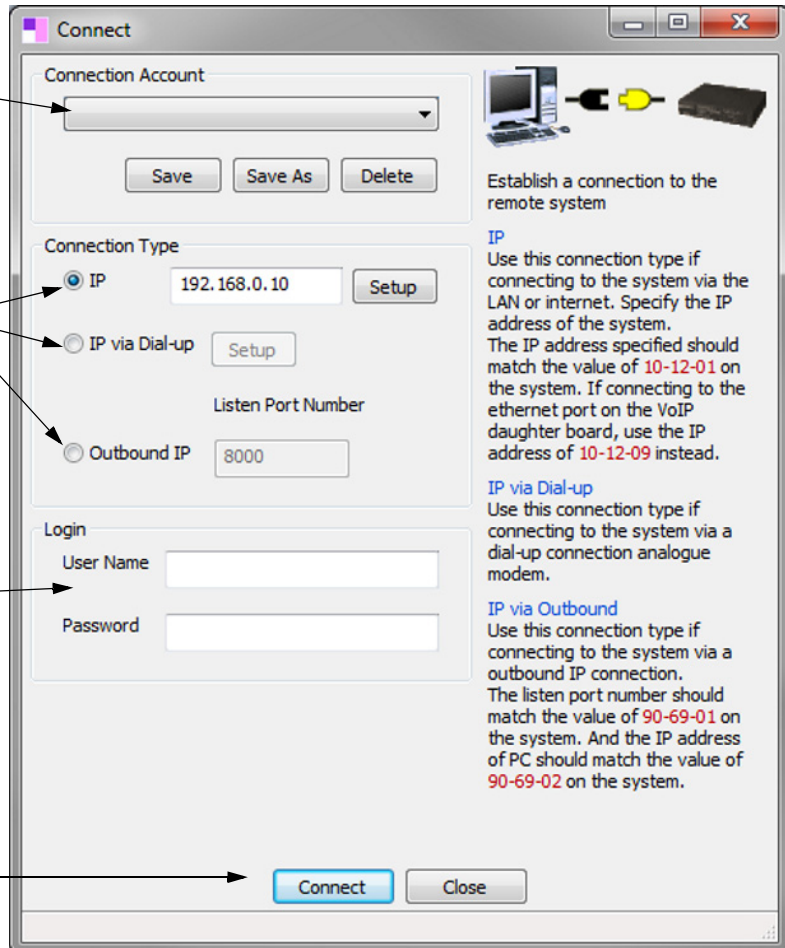
Figure B-2 Connect Dialog

3) (Optional) Load a defined Connection Account (can skip steps 1~3 by using this option).

1) Select Connection Type.

2) To login, specify the User Name and Password.

4) To make the connection to the system, click **Connect**.



To make a connection between PCPro and the system:

1. Select a **Connection Type** and specify the settings relevant to the selected type.



- *If connecting to an SL2100 system, select either IP or IP via Dial-up or Outbound IP.*

2. Specify the **User Name** and **Password** used to allow the connection.
3. Alternatively, steps 1~2 can be skipped loading a defined connection account (refer to - [Connection Accounts](#)).
4. Press the **Connect** button.

After a successful connection, the connection settings that are used are set to the File Properties.

2.2.1 Connection Types

PCPro supports three types of connections to a SL2100 system.

Connection Types for SL2100:

- IP
An *IP Connection* can be made via a LAN or the Internet. The IP address specified should match the system setting 10-12-01. If connecting to the Ethernet port on the VoIP daughter board, use the IP address setting in 10-12-09.
- Dial-up
An *IP Connection via Dial-up* can be made via a dial-up connection, either through ISDN or an analog modem.



- *Modem connections require an EXIFB mounted to the CCPU. The inbound trunk can be DID to the modem access (PRG 11-15-14 Default 740) or can go through the auto attendant with an option pointed at 740.*
- *To configure a dial up connection, refer to section 2.2.2 Create SL2100 Dial Up Connection on page B-4.*

- Outbound IP
Use this setting along with the IP connection if the listen port number needs to be changed to match the destination system configuration. The listen port number should match the value of 90-54-02 on the system. And the IP address of the PC should match the value of 10-12-01 or 10-12-09.

2.2.2 Create SL2100 Dial Up Connection

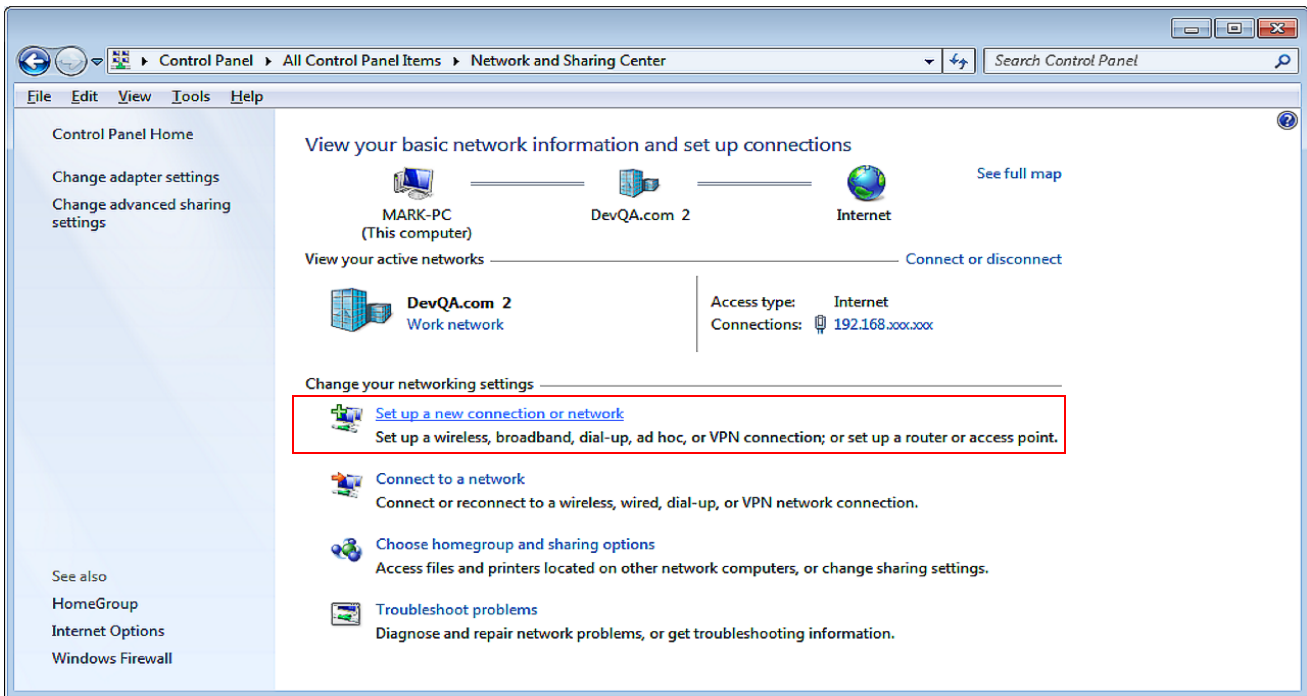
When connecting an SL2100 via modem, a Dial Up Connection (PPP) must be created. The following steps describe how to set up the Dial Up Connection (PPP).



Modem connections require an EXIFB mounted to the CCPU. The inbound trunk can be DID to the modem access (PRG 11-15-14 Default 740) or can go through the auto attendant with an option pointed at 740.

1. Click **Start > Settings > Network Connections**.
2. Select **Setup a New Connection or Network**.

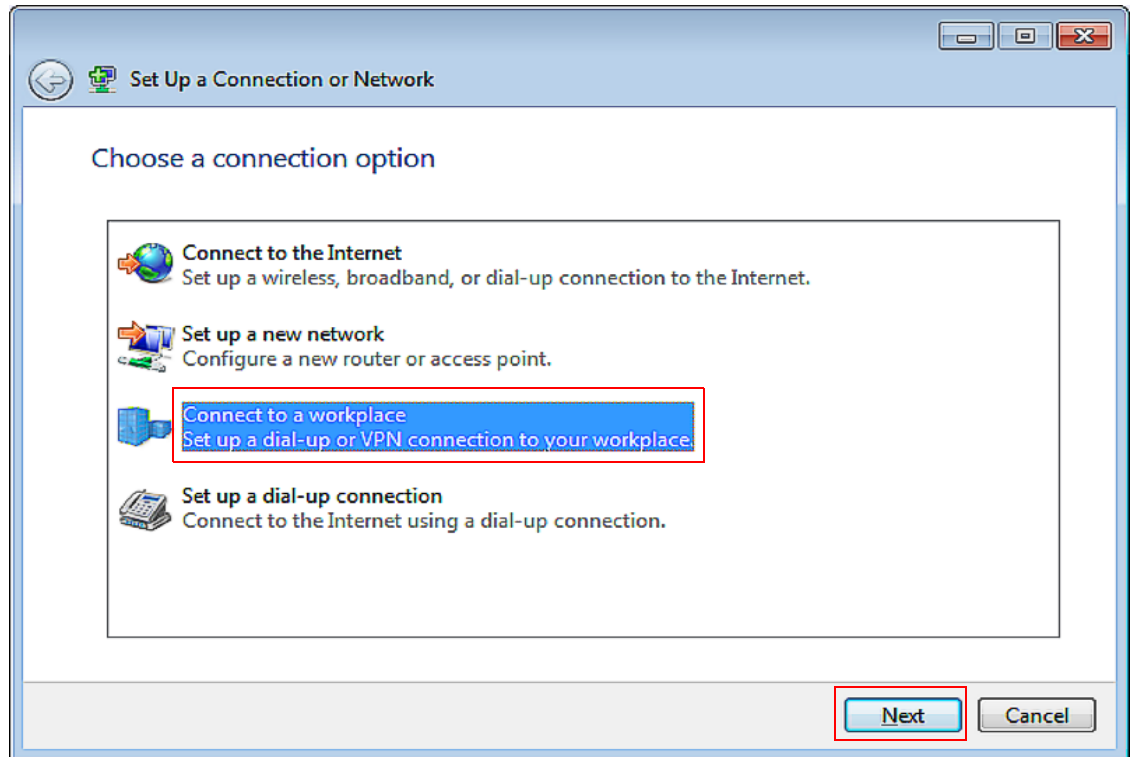
Figure B-3 New Connection Wizard Dialog



3. Click **Next**.

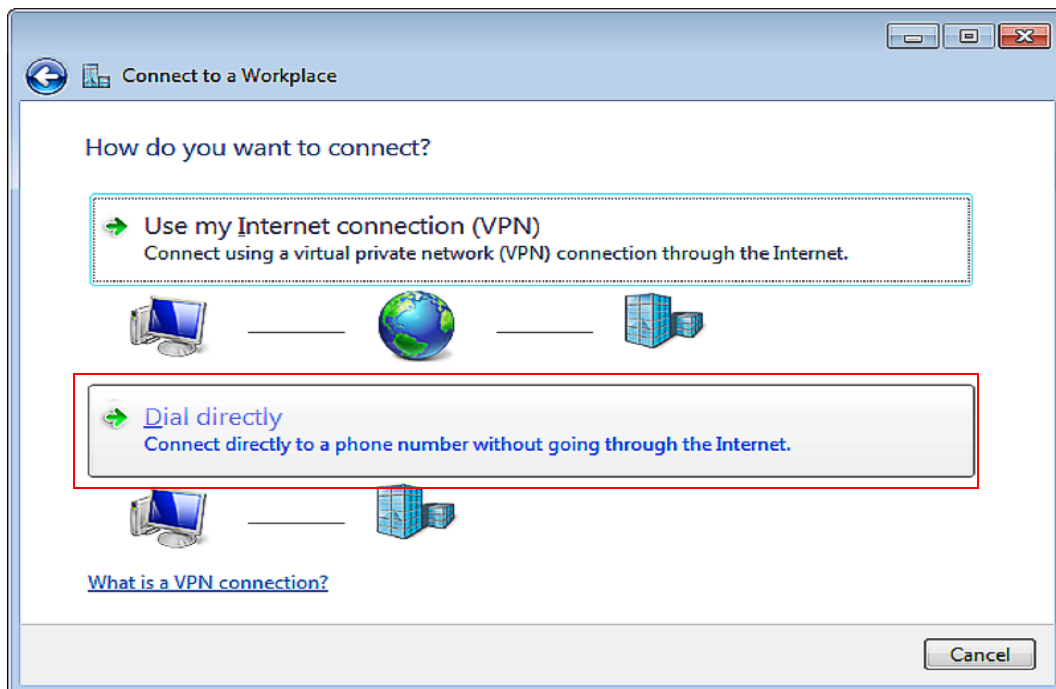
4. Select **Connect to a workplace**, then click **Next**.

Figure B-4 Network Connection Type Dialog



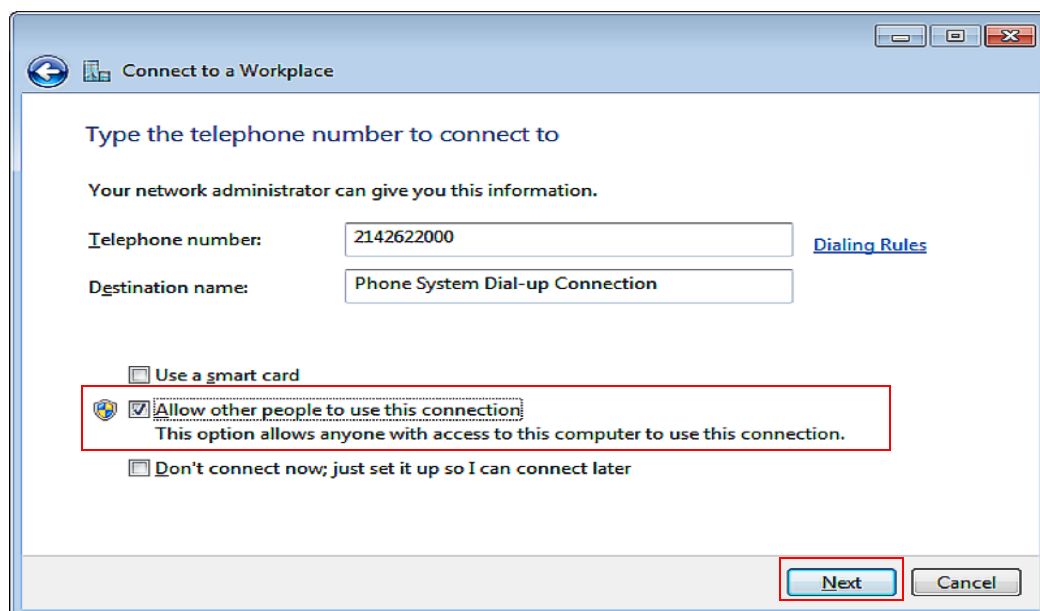
5. Select **Dial directly**.

Figure B-5 Network Connection Dialog



6. Enter the destination phone number, the name to be used for the dial-up connection and check the box next to "Allow other people to use this connection" then click **Next**.

Figure B-6 Connection Name Dialog

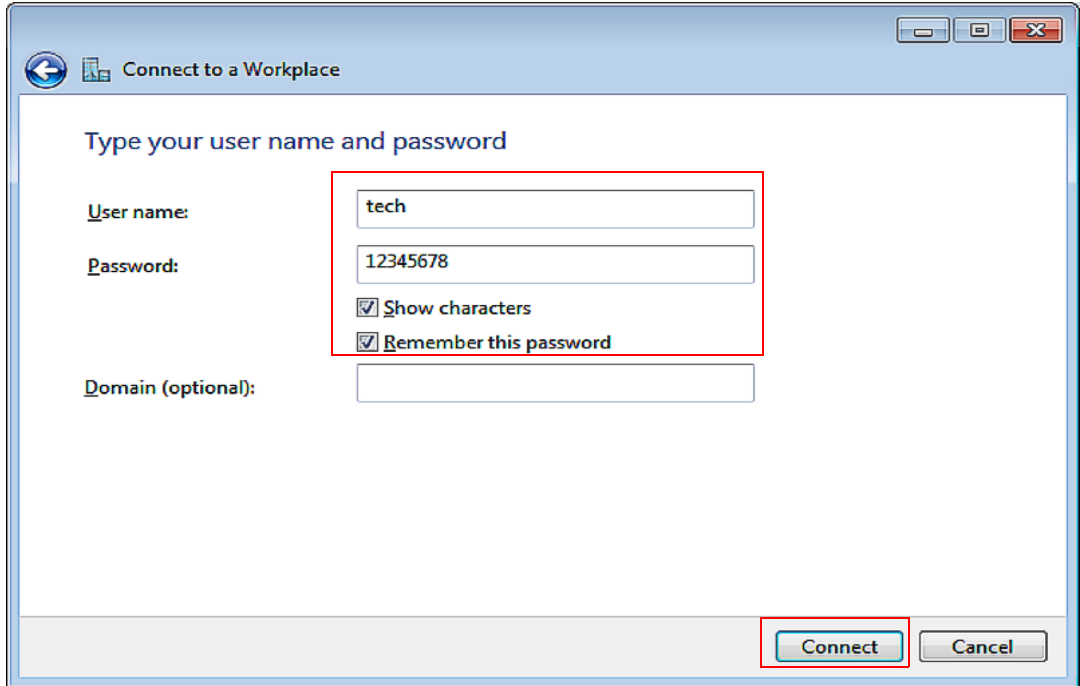


7. Enter the login name (tech) and the password to be used (12345678) and check the box next to "Remember this password", then click **Connect**.



Ensure the SL2100 programs 11-15-14, 22-02 and 22-07 are setup to receive calls to the modem.

Figure B-7 Phone Number to Dial Dialog



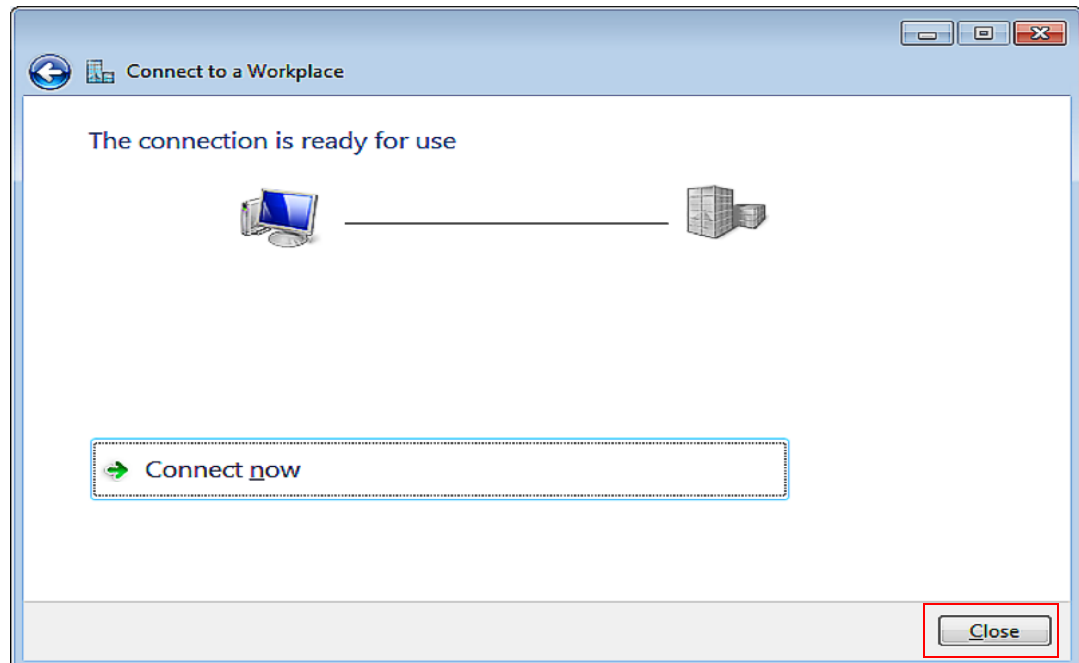
8. The PC will then try to dial the destination. Since this will be used later click **Skip** to stop the dial out.

Figure B-8 Connection Availability Dialog



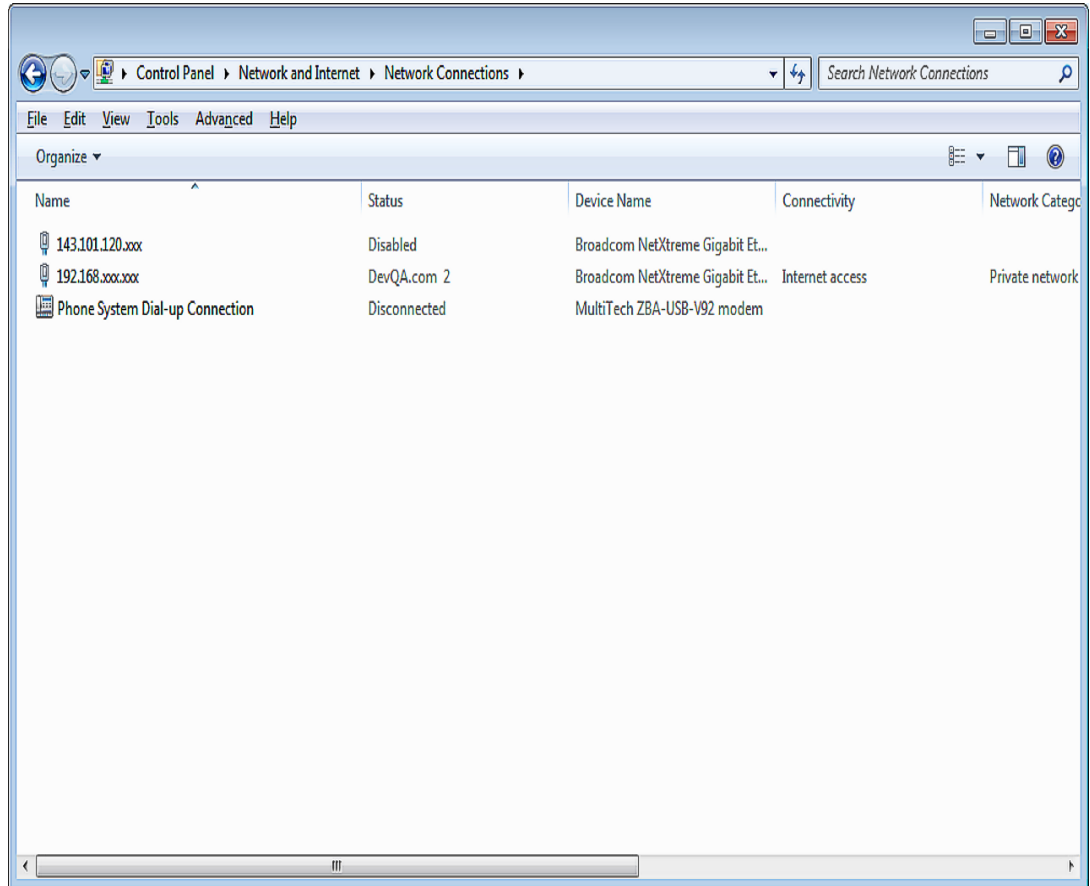
9. Click **Close**.

Figure B-9 Completing the New Connection Dialog



10. The Connection will now appear in the network connection screen and can be used by PC Programming when needed.

Figure B-10 Connect SL2100 Dial Up Connection



2.2.3 Login


Specify the User Name and Password that will allow the connection. The account must exist within the chassis settings 90-02. Like PCPro Accounts, Login Accounts govern what system data can be accessed from the chassis.

It is important to note, Login Accounts are not the same as PCPro Accounts. Thus both chassis Login and PCPro Account settings are NOT synchronized and are independent of each other.

Once connected, the PCPro access level changes to match the level assigned to the user name/password used to connect. This access level is set in 90-02 on the chassis. For example, if you start PCPro in Installer (IN) mode, but connect to a chassis using an account with an access level of System Administrator Level 1 (SA), after connecting PCPro assumes the access level of SA. Once you are disconnected, PCPro reverts back to the access level IN.

2.3 Disconnecting PCPro from the System

While PCPro is connected to a system, you can disconnect using one of the following methods:

1. Select the menu item **Home:Communication > Connect/Disconnect**.
or...
2. Select the icon depicting the connected black and yellow plugs  .
or...
3. Press **F5**.


All communication methods, excluding 'Connect/Disconnect', are disabled and the 'Connect/Disconnect' toolbar icon changes status to disconnected.

SECTION 3 DOWNLOAD

Downloading pulls all the data off the system and loads it into PCPro. A download can only occur when PCPro is connected to a system.

3.1 Accessing Download

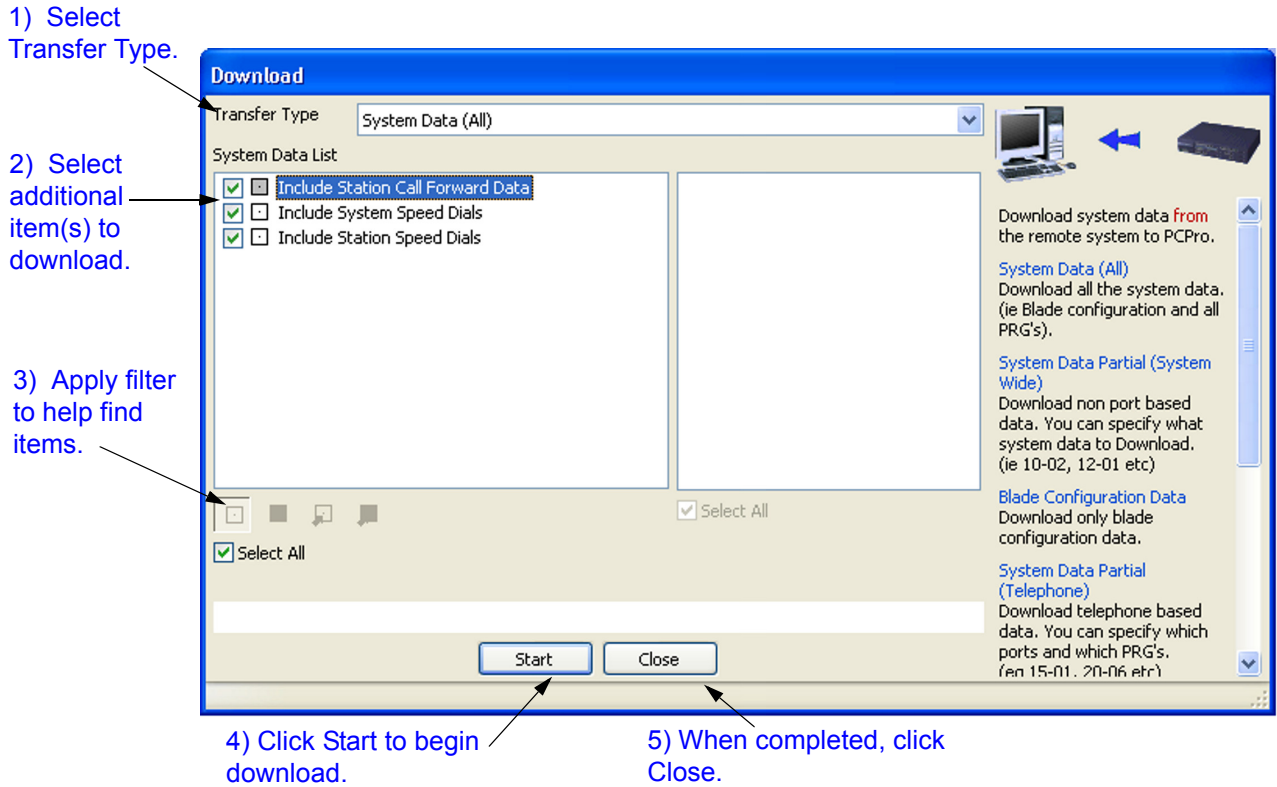
When PCPro is connected to a system, access the Download dialog using one of the following methods.

- Select the menu item **Home:Communication > Download**.
-- or --
- Select the icon depicting the blue arrow  .
-- or --
- Press **F6**.

3.2 Downloading Data from the System to PCPro

Use the Download dialog to specify the parameters and perform a download.

Figure B-11 Download Dialog



To download data from system memory to PCPro:

1. Select a **Transfer Type**.
2. Select **Transfer Type** items.
3. If desired, select items via the Modify Filter.
4. Press the **Start** button.
5. After the download is completed, press the **Close** button.

3.2.1 Transfer Type

Select a filter that controls the scope of settings to download. The following Transfer Types are made available.

- All: No filter, all chassis settings.
- Card Configuration: Card package settings.
- System Data Partial (System Wide): System-based settings.
- System Data Partial (Telephone): Telephone-based settings.
- System Data Partial (Virtual Extension): Virtual Extension-based settings.
- System Data Partial (Trunk): Trunk-based settings.

Transfer Type Items

Specifically select PRG Groups and/or individual PRGs from the chassis settings to download. The choice of Transfer Type Items available is governed by the Transfer Type selected.

Modify Filters


A filter is applied based on the system data modification status. The filter only applies to system data on the PCPro side, not system data residing in chassis memory. Refer to - [Modification History](#) for further information.

SECTION 4 UPLOAD

Uploading pushes all the data from PCPro to system memory. An upload can only occur when PCPro is connected to a system.

4.1 Accessing Upload

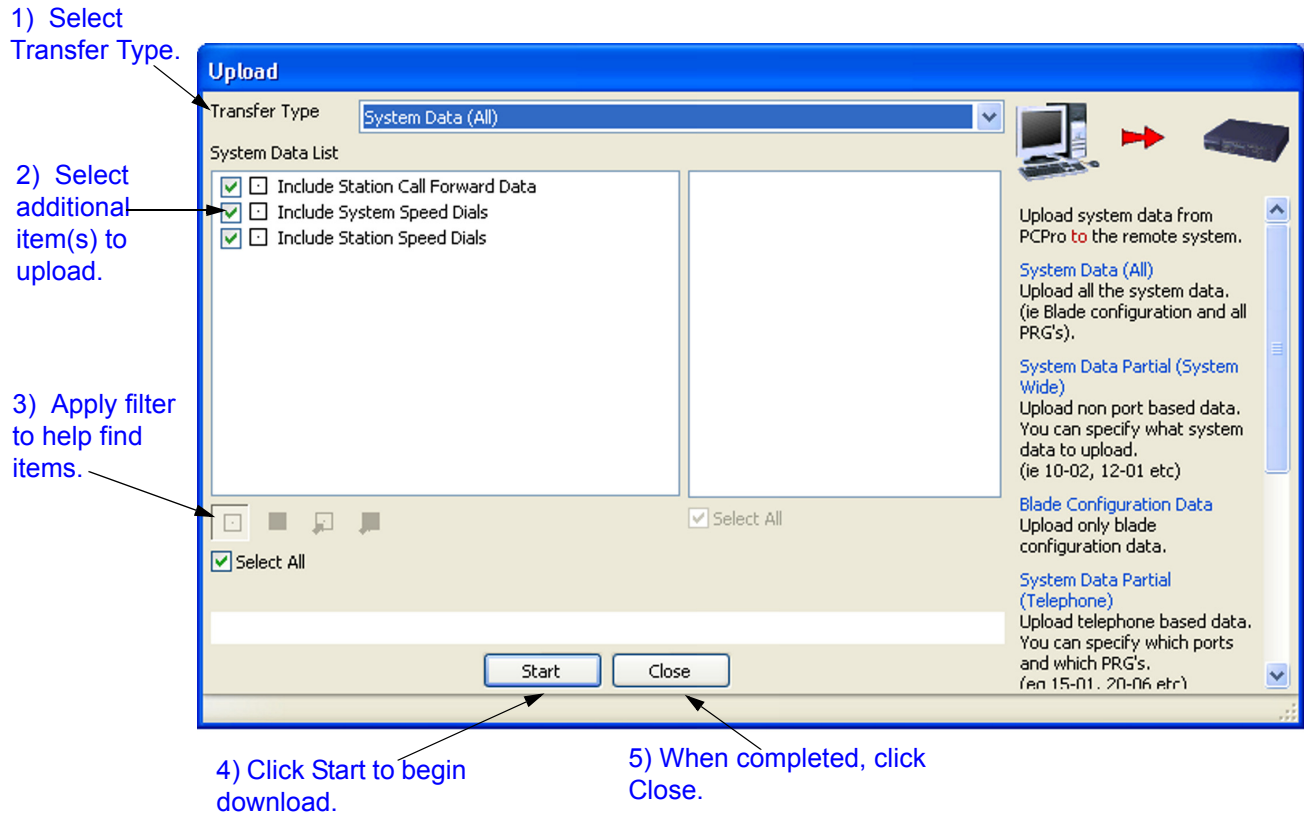
When PCPro is connected to a system, access the Upload dialog using one of the following methods:

- Select the menu item **Home:Communication > Upload**.
-- or --
- Select the icon depicting the red arrow  .
-- or --
- Press **F7**.

4.2 Uploading Data from PCPro to System Memory

Use the Upload dialog to specify the parameters and perform an upload.

Figure B-12 Upload Dialog



To upload data from PCPro to system memory:

1. Select a **Transfer Type**.
2. Select **Transfer Type** items.
3. If desired, select items via the Modify Filter.
4. Press the **Start** button.
5. After the upload is completed, press the **Close** button.

4.2.1 Transfer Type

Select a filter that controls the scope of chassis settings to upload. The following Transfer Types are made available.

- All: No filter, all Chassis settings.
- Card Configuration: Card packages settings.
- System Data Partial (System Wide): System-based settings.
- System Data Partial (Telephone): Telephone-based settings.
- System Data Partial (Virtual Extension): Virtual Extension-based settings.
- System Data Partial (Trunk): Trunk-based settings.

Transfer Type Items

Specifically select PRG Groups and/or individual PRGs from the chassis settings to upload. The choice of Transfer Type Items available is governed by the Transfer Type selected.

Modify Filters

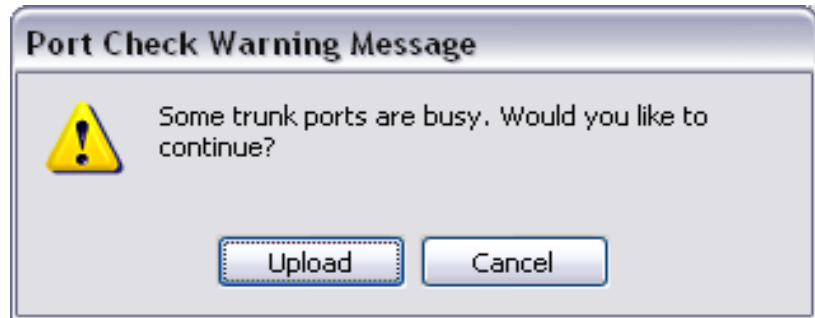
A filter is applied based on the system data modification status. The filter only applies to system data on the PCPro side, not system data residing in chassis memory. Refer to [- Modification History](#) for further information.

4.3 Uploading Card Configuration

When uploading the card Configuration via **Upload All**, and selecting Card Configuration, or just **Uploading Card Configuration**, a warning popup will display when either Trunks or stations are busy at the time of selecting to uploading the Card Configuration. This will allow for the upload to be canceled and completed at a later time, or to be continued and will disconnect the busy trunks and/or stations.

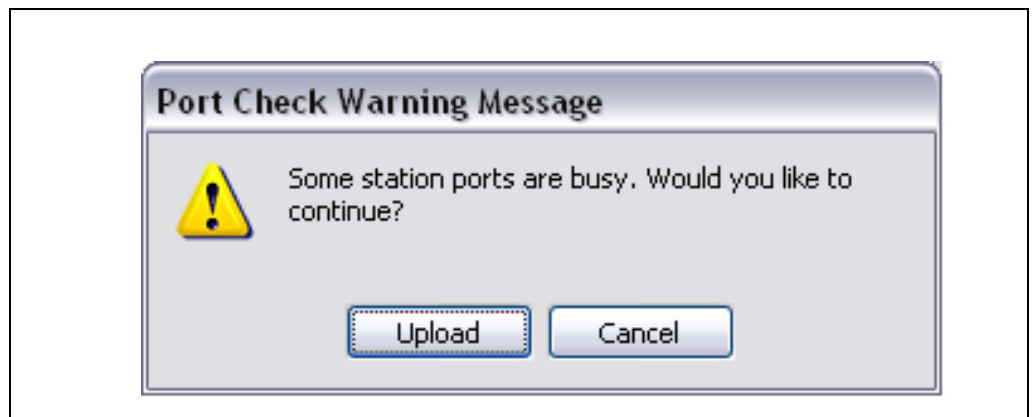
This popup is shown when the Card Configuration is selected to be uploaded and the trunks are busy.

Figure B-13 Trunk Ports Busy Warning



This is popup is shown when the Card Configuration is selected to be uploaded and stations are busy.

Figure B-14 Station Ports Busy Warning



SECTION 5 FEATURE ACTIVATION

Some system features are licensed and require registration before they can be used. Features can be activated by registering the feature automatically via the Internet or manually by downloading the associated Software Code. Feature Activation can only occur when PCPro is connected to a system.

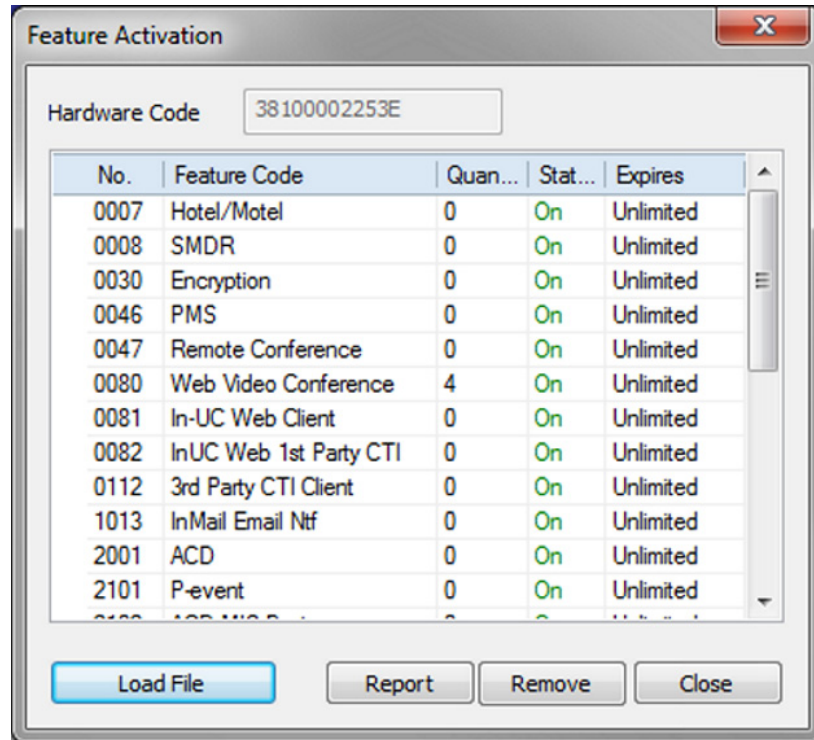
5.1 Accessing Feature Activation

When PCPro is connected to a chassis, access the Feature Activation dialog by selecting the menu item **Home > Maintenance > Feature Activation**.

5.2 Activating a Feature

Refer to - [Feature Activation](#) for a detailed discussion.

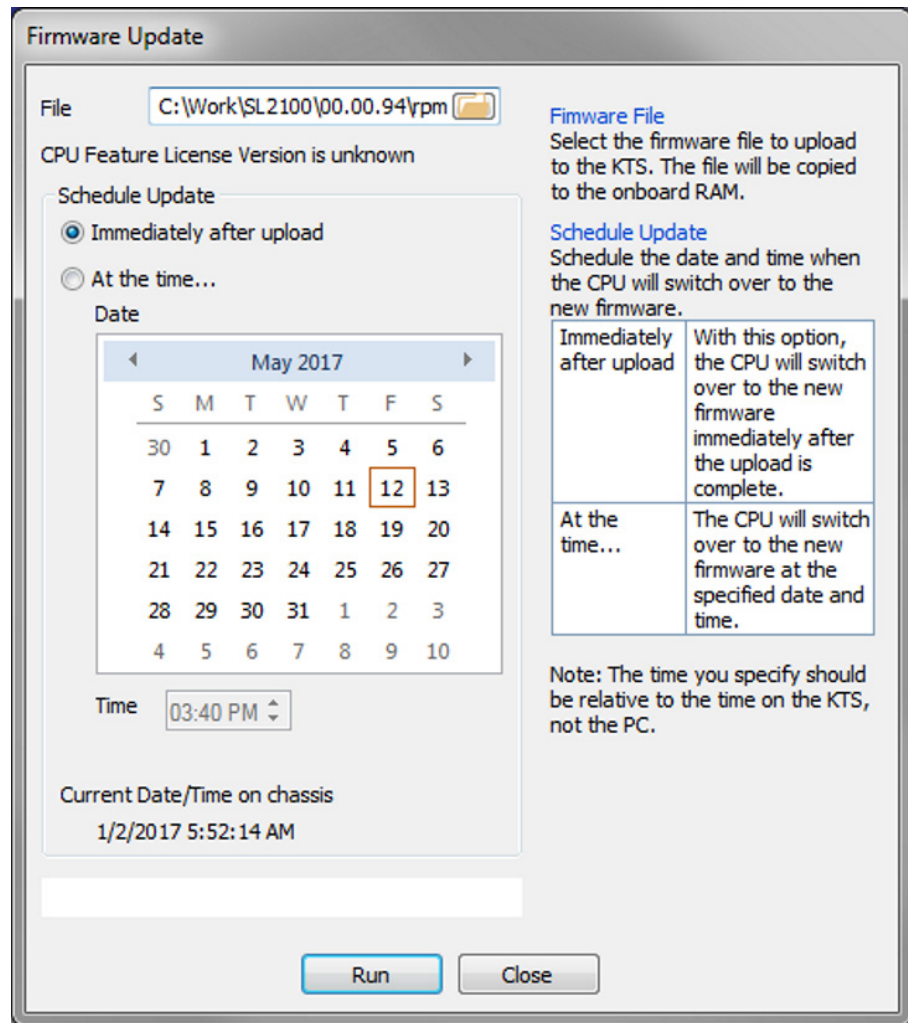
Figure B-15 Feature Activation Dialog



SECTION 6 FIRMWARE UPDATE

Firmware Update automatically updates the main software in a system remotely at a scheduled time. This feature saves times and effort in comparison to performing the task manually. A Firmware Update can only occur when PCPro is connected to a chassis.

Figure B-16 Firmware Update Dialog



The time to upload the firmware package file is directly related to the file size. At present, the package file is about 60MB, so over LAN it may take several minutes.

A backup of system data should be performed before any firmware update.

6.1 Accessing Firmware Update

When PCPro is connected to a chassis, access the Firmware Update dialog by selecting the menu item **Home > Maintenance > Upgrade SW**.

6.2 Using Firmware Update

Use the Firmware dialog to specify the parameters and perform a Firmware Update.

To perform a firmware update:

1. Select a **Firmware File**.

Firmware Package File:

Select a Firmware package file provided by NEC. Updating a chassis with a faulty Firmware package file could render the system unusable.

2. Schedule when the Firmware Update is to occur using the parameters in the **Schedule Update** section.

Schedule:

Schedule when the Firmware update will occur. The changes of the Firmware Update will only occur after the chassis is reset. Thus the Firmware Update should be executed at a suitable time when the chassis is not actively in use.



NOTE

The time you specify should be relative to the time on the chassis, not the local time of the PC.

3. Press the **Start** button.

6.3 SL2100 Web Pro Software Update

The Web Pro interface can be used to upload software updates to the SL2100, the procedure is similar to PC Pro Remote Upgrade. The update files have a “.bin” extension and are around 62M in size.

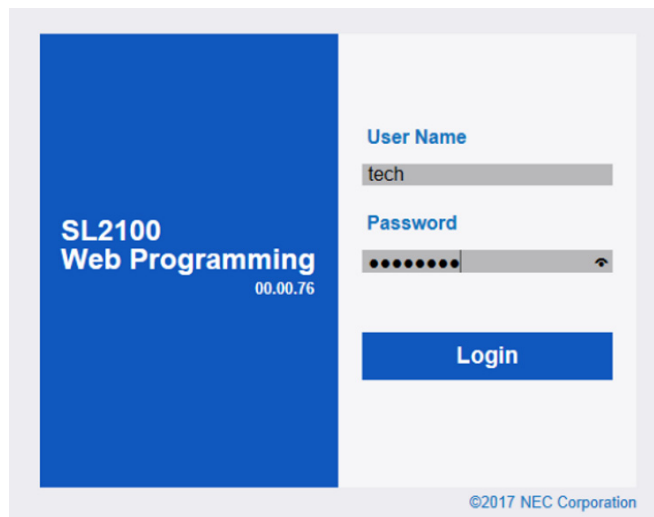


NOTE

This upgrade process takes approximately 15-20 minutes to complete. During this process the phone system will be out of service.

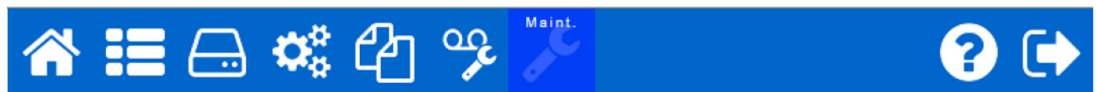
1. Download update file to local PC.
2. From local PC connect to SL2100 Web Pro and login as **tech / 12345678**.

Figure B-17 Web Pro Login



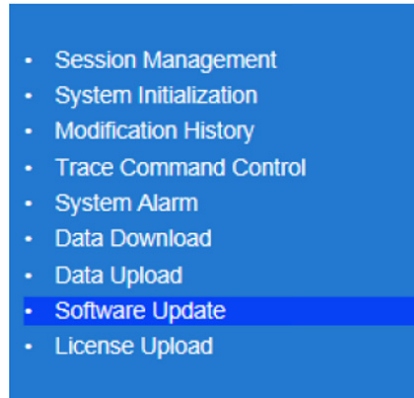
3. Select **Maintenance** from the menu bar.

Figure B-18 Web Pro menu Bar



4. Select **Software Update**.

Figure B-19 Web Pro Submenu – Software Update



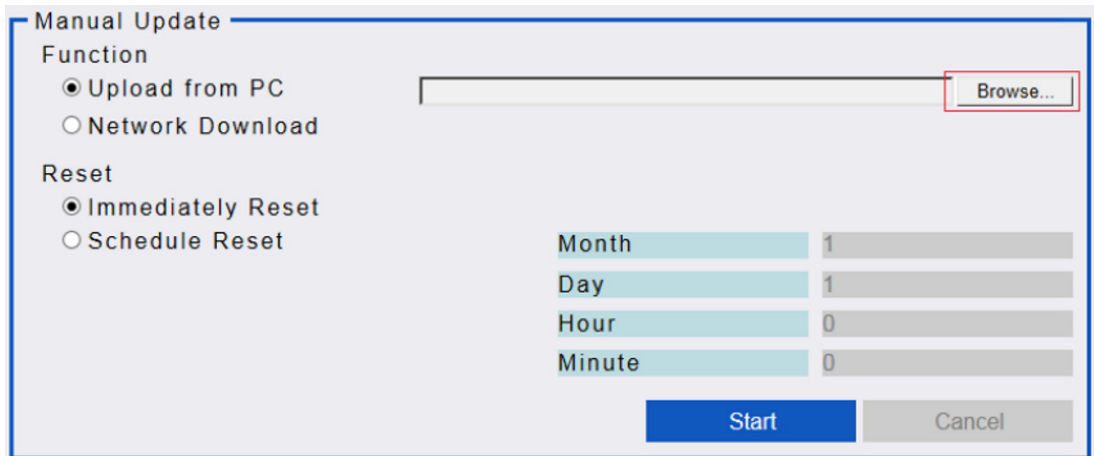
5. The Software Update screen will be displayed.

Figure B-20 Web Pro Update Screen

The screenshot shows the 'Web Pro Update Screen' with two main sections: 'Automatic Update' and 'Manual Update'.
Automatic Update: Includes fields for 'Enable' (checkbox), 'Day of Week' (dropdown menu showing 'Tuesday'), 'Hour' (text field with '23'), and 'Minute' (text field with '0'). A 'Save' button is located at the bottom right.
Manual Update: Includes a 'Function' section with radio buttons for 'Upload from PC' (selected) and 'Network Download'. A file selection field with a 'Browse...' button is next to it. Below is a 'Reset' section with radio buttons for 'Immediately Reset' (selected) and 'Schedule Reset'. To the right are fields for 'Month' (1), 'Day' (1), 'Hour' (0), and 'Minute' (0). 'Start' and 'Cancel' buttons are at the bottom right.

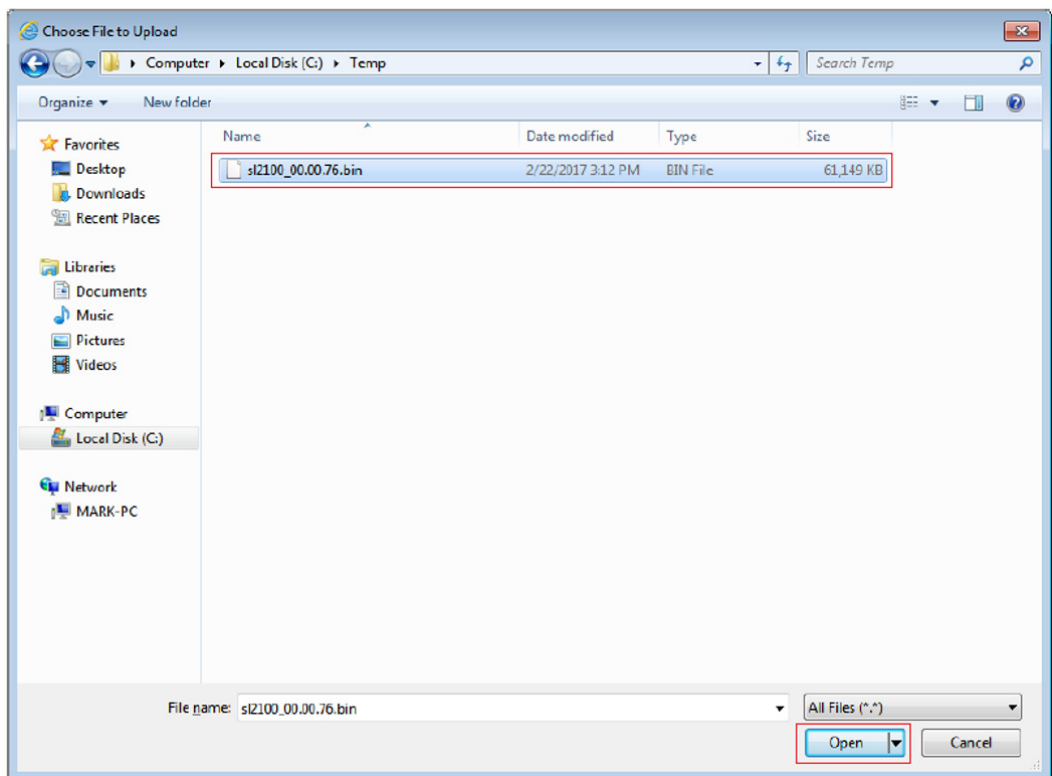
- In the Manual Update box make sure both **Upload from PC** and **Immediately Reset** are selected.

Figure B-21 Web Pro Manual Update Screen



- Click on the **Browse** icon and navigate the where the upgrade file is stored on the local PC, select the file and click **Open**.

Figure B-22 Choose File to Upload



8. Click on **Start** icon to start update process. **Do not** exit Web Pro at this time!

Figure B-23 Web Pro File Selected

Manual Update

Function

Upload from PC

Network Download

Reset

Immediately Reset

Schedule Reset

Month

Day

Hour

Minute

9. After several minutes the file upload will be complete but the update process has not finished. At this time exit Web Pro.

Figure B-24 Software Upload Completed Successfully

Software Upload completed successfully.
The software will be updated after making system reboot.

Automatic Update

Enable

Week

Hour

Minute

Manual Update

Function

Upload from PC

Network Download

Reset

Immediately Reset

Schedule Reset

Month

Day

Hour

Minute

10. After exiting Web Pro the update process will still be running and take approximately 12 more minutes to complete. You will know the update is complete when the telephones come back online.

Figure B-25 Web Pro menu Bar



SECTION 7 CONDITIONS

WebPro supports Remote System Upgrade. WebPro upgrade requires”

- Firmware package file from NEC
- User level (PRG90-02-03) has to be 2 = IN (Installer Level) or higher.
- WebPro supports the following browsers:
 - Internet Explorer 11.0 or higher
 - Mozilla Firefox 45 or higher
 - Chrome 48 or higher
 - Edge 20 or higher

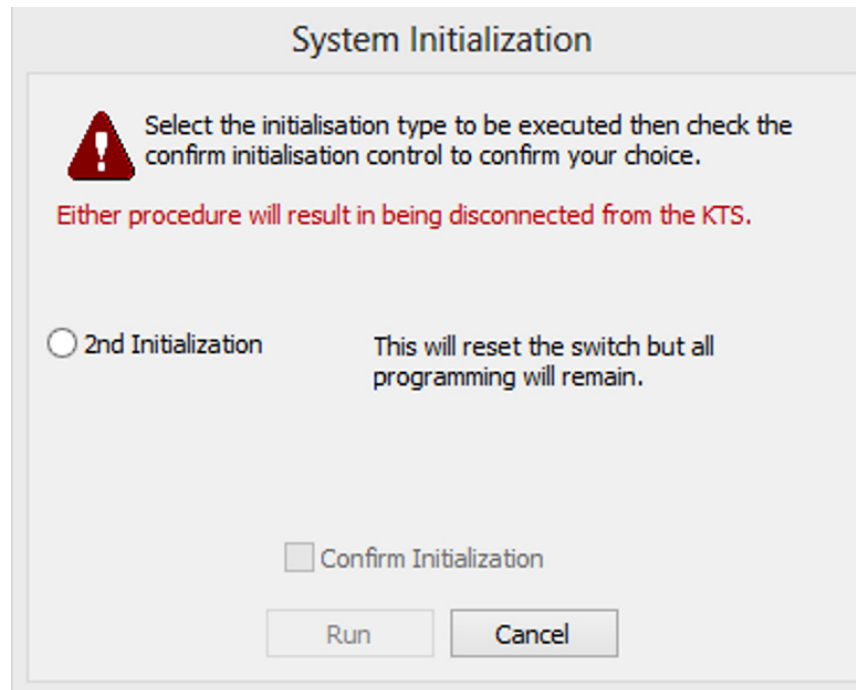


DO NOT click the Home or Back buttons on the browser, or close the WebPro browser, during uploading the Firmware, otherwise Upload stops.

SECTION 8 SYSTEM INITIALIZATION

A System Initialization resets a system. During an initialization all telephone calls are dropped and all connections to WebPro, PCPro and the handset are lost. Therefore, it is important that initialization should be executed at a suitable time when the system is not actively in use. PCPro can only execute an initialization when it is connected to a system.

Figure B-26 2nd Initialization Selected



When PCPro is connected to a system, access the System Initialization dialog by selecting the menu item **Tools > System Initialization**.

8.1 System Initialization Type

Within the System Initialization Dialog, access the initialization process.

2nd Initialization

A 2nd Initialization resets the chassis and retains all previously modified values within system data.

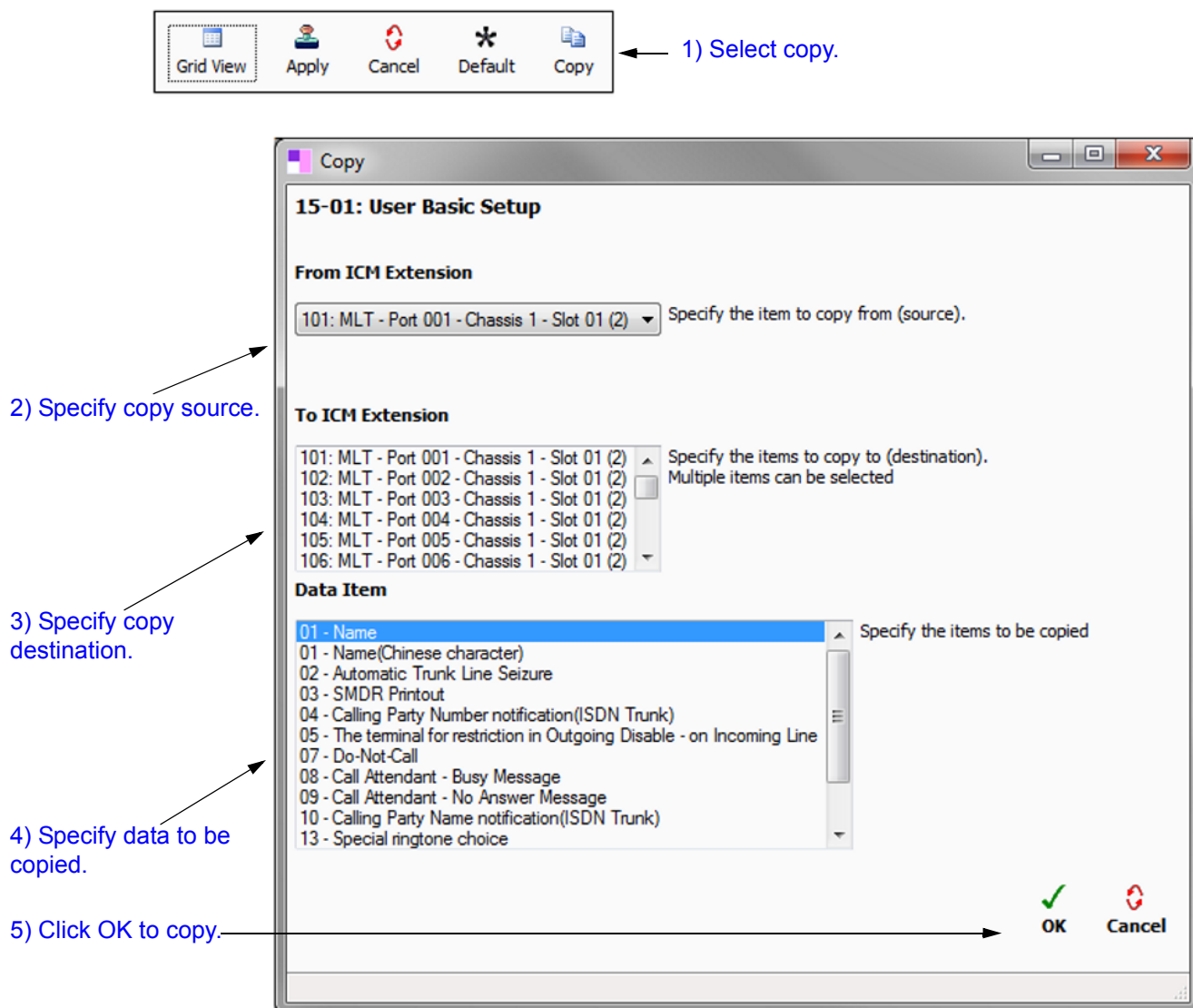
Copy

Appendix C

SECTION 1 OVERVIEW


The system data copy function allows you to copy data from one item to another (e.g., one trunk to another). This copy only applies to a single program. Copy only appears on screens where it is applicable.

Figure C-1 System Data Copy



SECTION 2 COPYING SYSTEM DATA

To copy a system data item:

1. Press the **Copy** button  .
2. When the **Copy** dialog box is displayed, specify the source to copy from.
The source (**From**) shows the item being copied from. Only a single source item can be selected.
3. Specify elements of the source that you want to copy.
These settings are specific to the system data being copied.
4. Specify the destination where you want to the elements copied.
The destination (**To**) details the item(s) where the selected source information is copied to. Multiple destination items can be selected.
5. Press **OK** to copy the selected items.

Modification History

Appendix D

SECTION 1 OVERVIEW

PCPro keeps a record of all the modifications made to a database file. This record is known as the Modification History. PCPro also provides you with the ability to view this history list. Following is the list of database operations that PCPro records in the modification history.

Operation	Details																
System Data Set	<p>This includes programming performed through:</p> <ul style="list-style-type: none"> ○ Standard View Screens ○ System Data Programming ○ Copy <p>For each set, an entry is made to the history list. The entry records the following items:</p> <table border="1"> <thead> <tr> <th>Field</th> <th>Data</th> </tr> </thead> <tbody> <tr> <td>Date</td> <td>Date and time of operation.</td> </tr> <tr> <td>User Name</td> <td>The User Name that performed the operation.</td> </tr> <tr> <td>Display Name</td> <td>The Display Name that performed the operation.</td> </tr> <tr> <td>Access Level</td> <td>The Access Level that performed the operation.</td> </tr> <tr> <td>Type</td> <td>Identifies the operation type. Set to "Set Date".</td> </tr> <tr> <td>Modification</td> <td>The system data ID.</td> </tr> <tr> <td>Details</td> <td>The item changed. Old value. New value.</td> </tr> </tbody> </table>	Field	Data	Date	Date and time of operation.	User Name	The User Name that performed the operation.	Display Name	The Display Name that performed the operation.	Access Level	The Access Level that performed the operation.	Type	Identifies the operation type. Set to "Set Date".	Modification	The system data ID.	Details	The item changed. Old value. New value.
Field	Data																
Date	Date and time of operation.																
User Name	The User Name that performed the operation.																
Display Name	The Display Name that performed the operation.																
Access Level	The Access Level that performed the operation.																
Type	Identifies the operation type. Set to "Set Date".																
Modification	The system data ID.																
Details	The item changed. Old value. New value.																

The modification history is only saved in the local database when you perform **File Save** or **File Save As**. The modification history is a running list of the changes. PCPro keeps appending to the list. If you open a file, make changes, save and close the file and in the future open the same file and make additional changes, then the new modification history is appended to the old.

The modification state of a PCPro database is indicated via the modification icon on the Status Bar. The different filters are:

	The database is not modified. All data has been saved to file and uploaded.
	System data has been modified and has not been saved to file.
	System data has been saved to file but has not been uploaded.
	System data has been modified and has not been saved to file nor uploaded.

SECTION 2 ACCESSING MODIFICATION HISTORY

To access Modification History, complete one of the following:

- Select the menu item **Reports > Modification History**.
- or --
- Select the clock icon on the toolbar

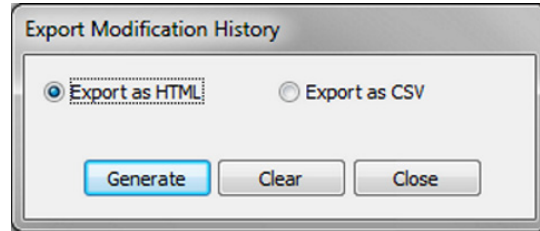
SECTION 3 GENERATING A MODIFICATION HISTORY REPORT

A Modification History Report can be viewed in either HTML format or Comma Separated Variable (CSV) format. Sample formats are shown in [Figure D-2 Sample Modification History HTML Format on page D-3](#) and [Figure D-3 Sample Modification History CSV Format on page D-4](#).

To request a report:

1. Access the report by selecting Modification History from the toolbar or by clicking the clock icon (refer to [Section 2 Accessing Modification History](#)).
2. When the **Export Modification History** dialog box is displayed, click either the **HTML** or **CSV** option and press **OK**.

Figure D-1 Export Modification History Dialog Box



- The report is generated in the format you selected. (Refer to [Figure D-2 Sample Modification History HTML Format](#) and [Figure D-3 Sample Modification History CSV Format](#) on page D-4).

Figure D-2 Sample Modification History HTML Format

	Date	Time	User Name	Access Level	Operation	Details
1	17/04/17	08:43:56	ASPIRE	Installer Mode (IN)	Download	LAN/IP, Dest 97.68.197.67, port 8000, lport 8000 System Data (All)
2	17/04/17	08:47:48	ASPIRE	Installer Mode (IN)	Set Value	PRG 14-05: Trunk Groups Item Trunk 007, Priority Value Old=7, New=4
3	17/04/17	08:47:48	ASPIRE	Installer Mode (IN)	Set Value	PRG 14-05: Trunk Groups Item Trunk 008, Priority Value Old=8, New=5
4	17/04/17	08:47:48	ASPIRE	Installer Mode (IN)	Set Value	PRG 14-05: Trunk Groups Item Trunk 009, Priority Value Old=9, New=6
5	17/04/17	08:47:48	ASPIRE	Installer Mode (IN)	Set Value	PRG 14-05: Trunk Groups Item Trunk 010, Priority Value Old=10, New=7
6	17/04/17	08:47:48	ASPIRE	Installer Mode (IN)	Set Value	PRG 14-05: Trunk Groups Item Trunk 004, Priority Value Old=4, New=8
7	17/04/17	08:47:48	ASPIRE	Installer Mode (IN)	Set Value	PRG 14-05: Trunk Groups Item Trunk 005, Priority Value Old=5, New=9
8	17/04/17	08:47:48	ASPIRE	Installer Mode (IN)	Set Value	PRG 14-05: Trunk Groups Item Trunk 006, Priority Value Old=6, New=10
9	17/04/17	08:47:54	ASPIRE	Installer Mode (IN)	Upload	LAN/IP, Dest 97.68.197.67, port 8000, lport 8000 System Data (All)
10	17/04/17	08:48:49	ASPIRE	Installer Mode (IN)	Set Value	PRG 15-07: Function Keys Item Extension 505, Function Key 01, Function Value Old=Trunk Access via Networking (*06), New=Trunk Group Key (*02)
11	17/04/17	08:49:19	ASPIRE	Installer Mode (IN)	Set Value	PRG 15-07: Function Keys Item Extension 505, Function Key 01, Function Value Old=Trunk Access via Networking (*06), New=Trunk Group Key (*02)

Figure D-3 Sample Modification History CSV Format

	Date	Time	User Name	Access Level	Operation	Details
1	17/04/17	8:43:56	ASPIRE	Installer	N Download	LAN/IP, Di System Data (All)
2	17/04/17	8:47:48	ASPIRE	Installer	N Set Value	14-05: Tru Item: Trur Old=7 New=4
3	17/04/17	8:47:48	ASPIRE	Installer	N Set Value	14-05: Tru Item: Trur Old=8 New=5
4	17/04/17	8:47:48	ASPIRE	Installer	N Set Value	14-05: Tru Item: Trur Old=9 New=6
5	17/04/17	8:47:48	ASPIRE	Installer	N Set Value	14-05: Tru Item: Trur Old=10 New=7
6	17/04/17	8:47:48	ASPIRE	Installer	N Set Value	14-05: Tru Item: Trur Old=4 New=8
7	17/04/17	8:47:48	ASPIRE	Installer	N Set Value	14-05: Tru Item: Trur Old=5 New=9
8	17/04/17	8:47:48	ASPIRE	Installer	N Set Value	14-05: Tru Item: Trur Old=6 New=10
9	17/04/17	8:47:54	ASPIRE	Installer	N Upload	LAN/IP, Di System Data (All)
10	17/04/17	8:48:49	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=Trunk New=Trunk Group Key (*02)
11	17/04/17	8:49:19	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=Trunk New=Trunk Group Key (*02)
12	17/04/17	8:49:19	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=Trunk New=Hybrid/Loop Key (*05)
13	17/04/17	8:49:19	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=1 New=2
14	17/04/17	8:49:43	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=Trunk New=Trunk Group Key (*02)
15	17/04/17	8:49:43	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=Trunk New=Hybrid/Loop Key (*05)
16	17/04/17	8:49:43	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=1 New=2
17	17/04/17	8:49:43	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=Trunk New=Trunk Group Key (*02)
18	17/04/17	8:49:43	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=Trunk New=Hybrid/Loop Key (*05)
19	17/04/17	8:49:43	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=1 New=2
20	17/04/17	8:49:43	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=Trunk New=Trunk Group Key (*02)
21	17/04/17	8:49:43	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=Trunk New=Hybrid/Loop Key (*05)
22	17/04/17	8:49:43	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=1 New=2
23	17/04/17	8:49:43	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=Trunk New=Trunk Group Key (*02)
24	17/04/17	8:49:43	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=Trunk New=Hybrid/Loop Key (*05)
25	17/04/17	8:49:43	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=1 New=2
26	17/04/17	8:49:43	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=Trunk New=Trunk Group Key (*02)
27	17/04/17	8:49:43	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=Trunk New=Hybrid/Loop Key (*05)
28	17/04/17	8:49:43	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=1 New=2
29	17/04/17	8:49:43	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=Trunk New=Trunk Group Key (*02)
30	17/04/17	8:49:43	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=Trunk New=Hybrid/Loop Key (*05)
31	17/04/17	8:49:43	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=1 New=2
32	17/04/17	8:49:43	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=Trunk New=Trunk Group Key (*02)
33	17/04/17	8:49:43	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=Trunk New=Hybrid/Loop Key (*05)
34	17/04/17	8:49:43	ASPIRE	Installer	N Set Value	15-07: Fur Item: Exte Old=Trunk New=Hybrid/Loop Key (*05)

Connection Accounts

Appendix E

SECTION 1 OVERVIEW

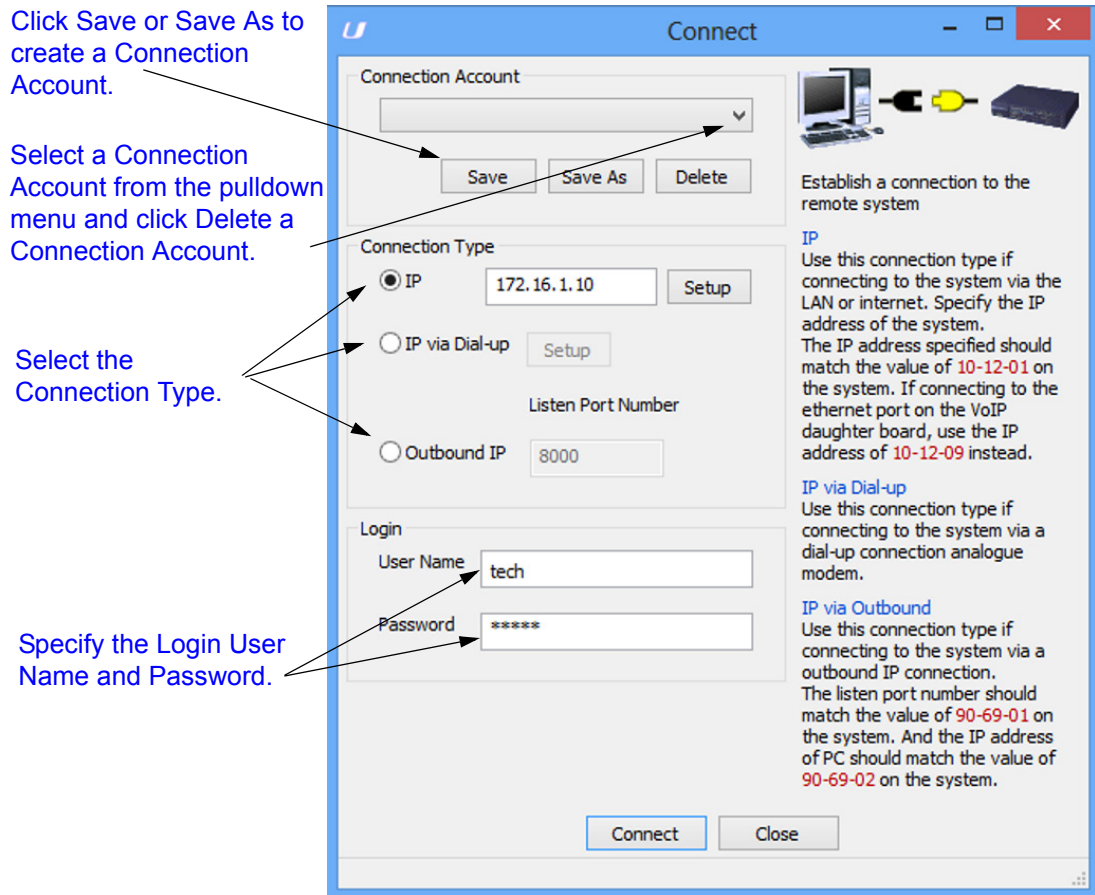
Connection Accounts provide a convenient way of loading user defined connection settings. These are application wide settings. Connection Accounts can be created in two ways:

- Via the Connect dialog
- Via the Connection Accounts dialog

SECTION 2 CREATING/DELETING A CONNECTION ACCOUNT USING THE CONNECT DIALOG

This section describes how to use the Connect dialog to create a new Connection Account or delete an existing Connection Account. (Refer to [Figure E-1 Connect Dialog Creating/Deleting Connection Account on page E-2.](#))

Figure E-1 Connect Dialog Creating/Deleting Connection Account

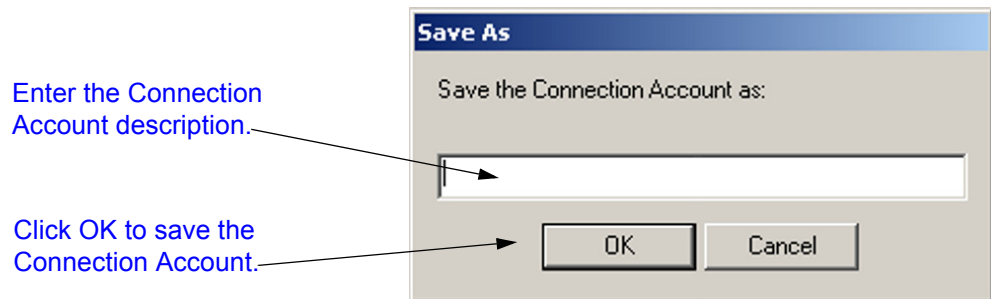


2.1 Creating a New Account

To create an account using Connect dialog:

1. Select a **Connection Type** and specify settings relevant to the Connection Type.
2. Specify the **Login User Name** and **Password** used to allow the connection.
3. Press the **Save** or **Save As** button located in the Connection Account section of the dialog.
4. When the Save As dialog is displayed, enter a description of the connection (refer to [Figure E-2 Save As Connection Account Dialog on page E-3.](#))

Figure E-2 Save As Connection Account Dialog



5. Press **OK** to save the Connection Account.

2.2 Deleting an Account

An existing Connection Account can be deleted.

To delete an existing account:

1. Select the **Connection Account** from the pulldown menu on the Connect dialog. (Refer to [Figure E-1 Connect Dialog Creating/Deleting Connection Account on page E-2.](#))
2. Click the **Delete** button.



Debug Terminal

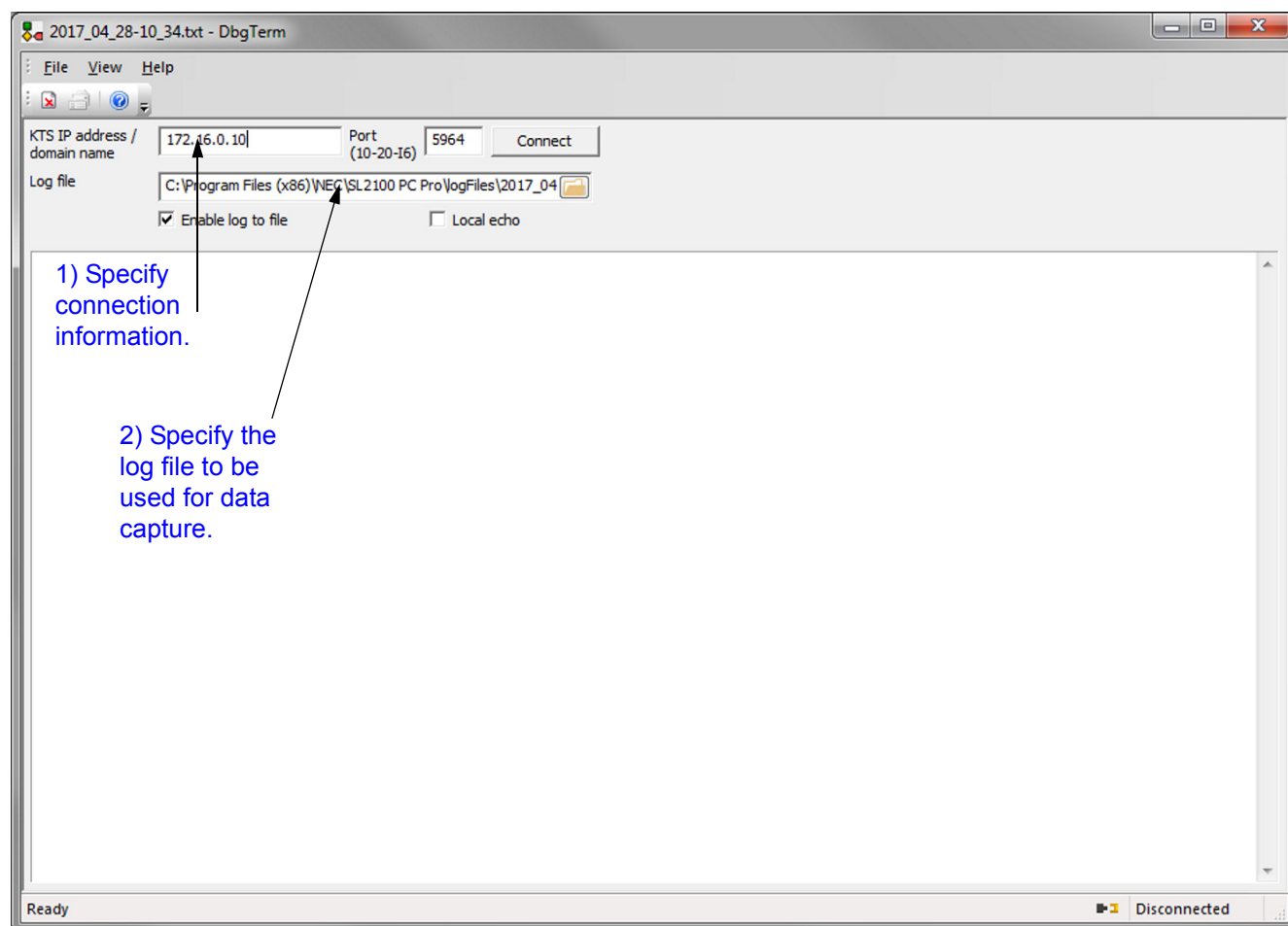
Appendix F

SECTION 1 OVERVIEW

PCPro provides a debug terminal that can be used to capture trace logs from the CPU. The debug terminal communicates with the chassis via the LAN. A TCP connection on port 5964 is established between the debug terminal and the SL2100.

This port number is blank by default and must be set in PRG 10-20-01 Device 6. In addition, the DIM Access needs to be enabled in PRG 90-31-01. Any unused network port can be used as long as it is set in PRG 10-20-01 Device 6.

Figure F-1 Debug Terminal Dialogs




SECTION 2 LAUNCHING THE DEBUG TERMINAL

You can launch the debug terminal in one of two ways:

- Select the menu item **Tools > System > DbgTerm**.

-- or --

- Click on the DbgTerm icon on the toolbar  .

If PCPro is connected via LAN to a chassis, then the debug terminal automatically tries to connect to the same IP address (domain name). Once the debug terminal is running, incoming debug messages from the chassis appear on the screen. You can capture the incoming data to a file by specifying a log file name and enabling the log capture.

Log capture can be enabled or disabled at the your discretion. A message is printed in the log file indicating the date and time the capture was enabled or disabled.

Feature Activation

Appendix G

SECTION 1 INTRODUCTION

There are three methods for activation of features on the CCPU: automatic activation via PCPro, manual activation via PCPro and manual activation via WebPro.

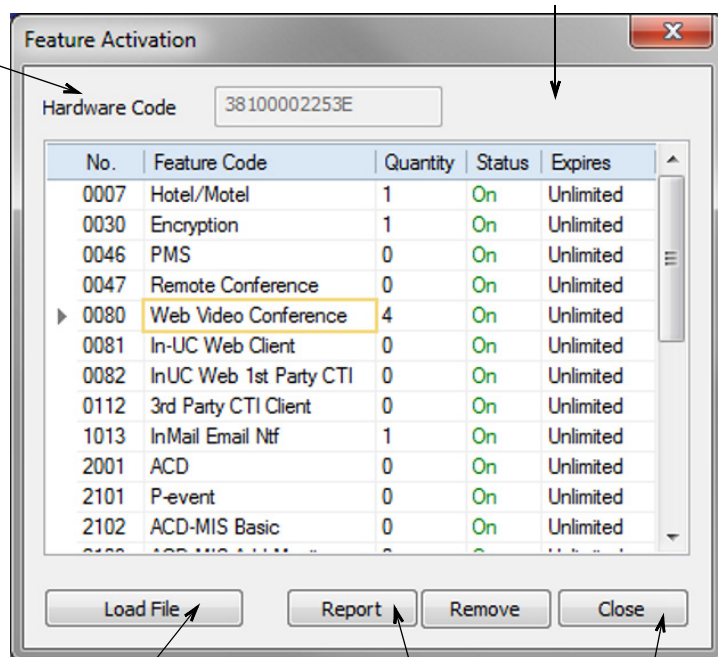
SECTION 2 FEATURE ACTIVATION USING PCPRO

Some system features require registration before they can be used. Feature Activation registers these manually through input of Activation Codes. Feature Activation can only occur when PCPro is connected to a system.

Figure G-1 PCPro Feature Activation Dialog

Hardware Key (number assigned by NEC and printed on equipment).

Informational area that lists features available for activation. For each feature, the quantity registered, the activation status (On = activated, Off = not activated) and an expiration date for feature activation (if assigned) is displayed.



Manual Registration

Request html report for license.

Exit Feature Activation.

2.1 Accessing Feature Activation

When PCPro is connected to a chassis, access the Feature Activation dialog by selecting the menu item **Home > Maintenance > Feature Activation**.

2.2 Manually Activating a Feature

Manual Activation does not require that you have an Internet connection. However, you must have previously downloaded the license file that was generated by the NEC Product License Server. The license file contains the Software Code, which is required to activate the feature.

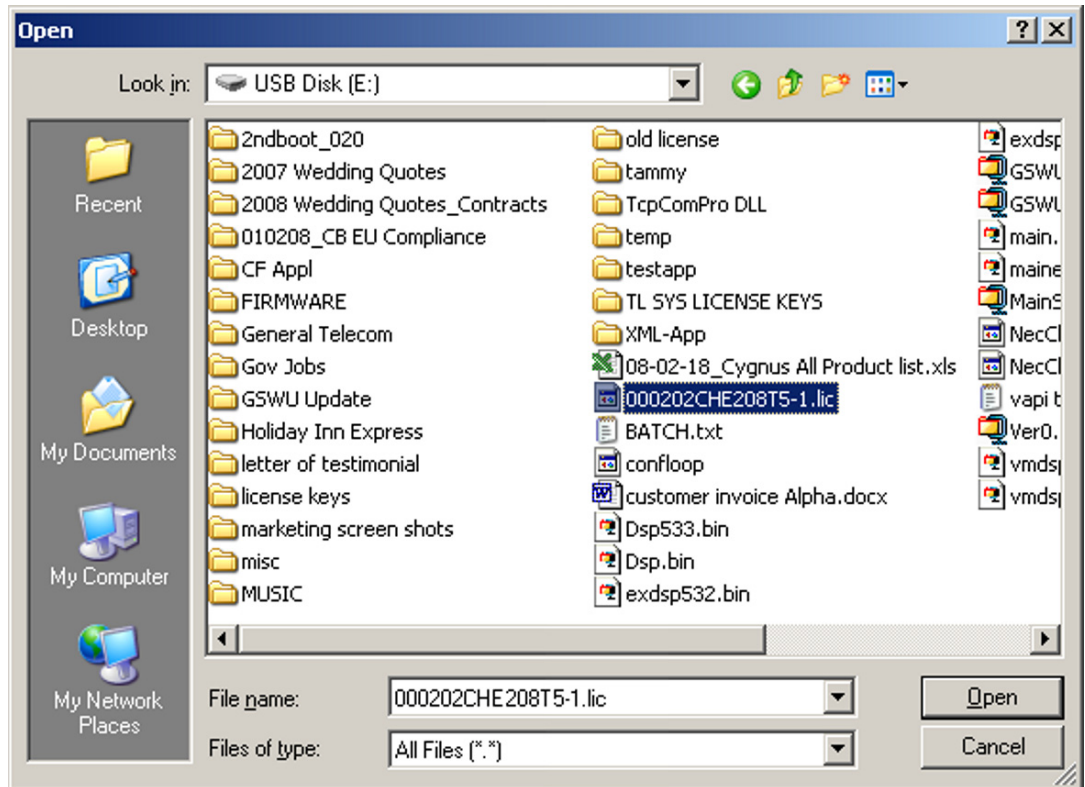
To activate a feature manually:

1. Launch PCPro and access **Feature Activation** (refer to [2.1 Accessing Feature Activation](#)).
2. If connected to the SL2100 system, the Hardware Code is retrieved and displayed.
3. Click **Load File** (refer to [Figure G-2 Feature Activation Open File Dialog on page G-3](#)).



This file can reside on the PC or you can copy it to a flash drive to reference if activating other locations.

Figure G-2 Feature Activation Open File Dialog



4. When you have located the file (xxxxxxx.lic), select it and click **Open**.
5. When the confirmation dialog is returned, click **Save & upload now** to immediately save the file on the ProPro database and activate the feature.

SECTION 3 FEATURE ACTIVATION USING WEBPRO

WebPro can also be used to manually activate features.

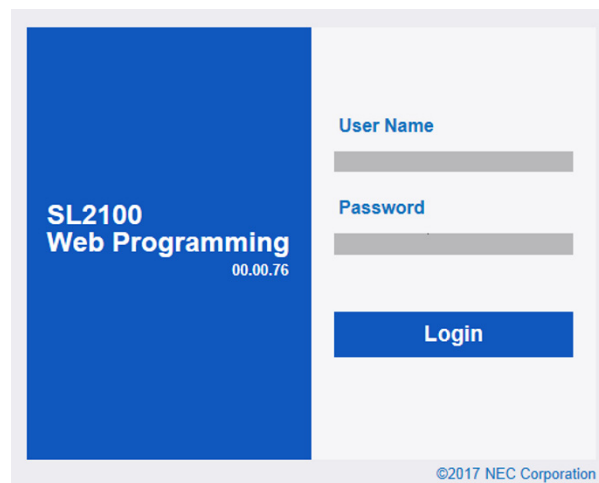
3.1 Manually Activating a Feature

To activate a feature using WebPro, you must have Internet connection.

1. Point your browser at the IP address of the CCPU (set in PGM 10-12-01).
2. When the Home page is displayed, enter the **User Name** and **Password**.

*The default User Name = **tech** and Password = **12345678**.*

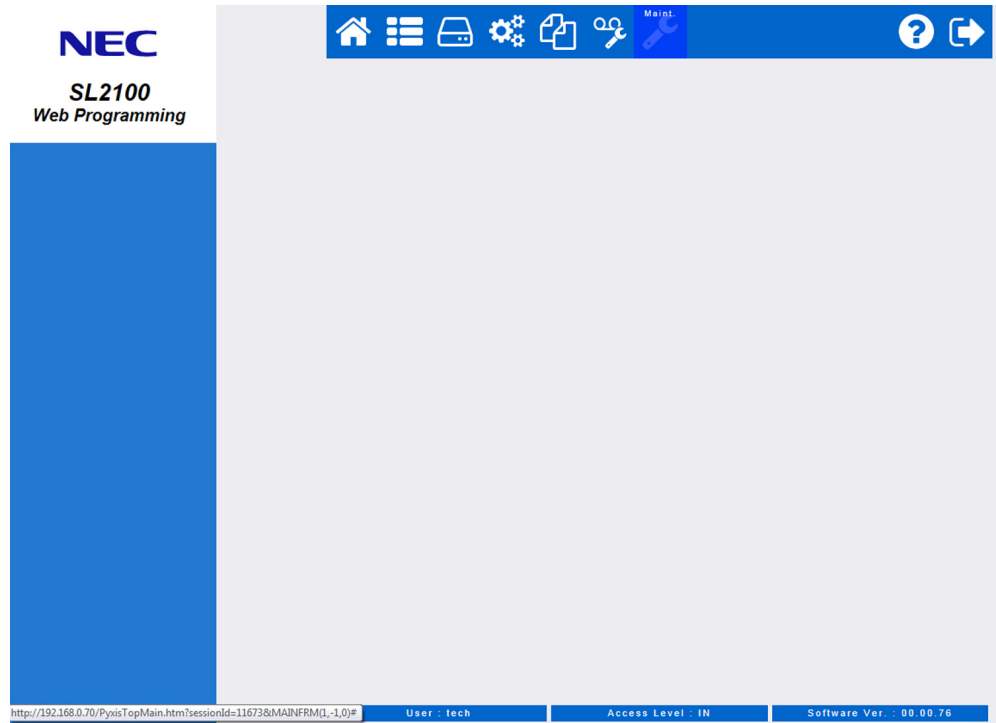
Figure G-3 WebPro Login Screen



3. If login was successful, the WebPro Home page is displayed. Click **Maintenance Icon**.

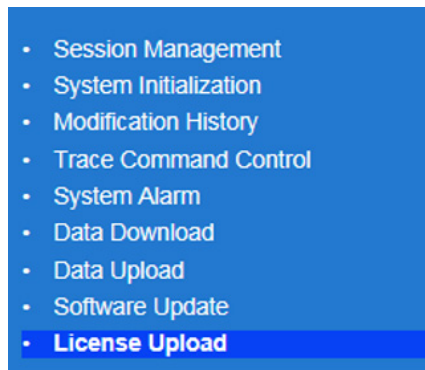


Figure G-4 Feature Activation Screen WebPro Home Page



4. Select License Upload.

Figure G-5 Web Pro Submenu – License Upload



- The WebPro License Registration page is displayed.

Figure G-6 Feature Activation Screen WebPro Manual Activation

License Upload

Hardware Key Code: 38100002253E

Upload a license file to the SL2100: Browse

Upload

The following features are registered:

Feature No	Group Name	Feature Name	Quantity	Used	Expiry Date
0007	System Features	Hotel/Motel	1	N/A	Never
0008		SMDR	0	N/A	Never
0030	IP Related	Encryption	1	N/A	Never
0046	System Features	PMS	0	N/A	Never
0047		Remote Conference	0	N/A	Never
0080	Client	Web Video Conference	4	N/A	Never
0081		In-UC Web Client	0	N/A	Never
0082		InUC Web 1st Party CTI	0	N/A	Never
0112	System Features	3rd Party CTI Client	0	N/A	Never
1013		InMail Email Ntf	1	N/A	Never
2001		ACD	0	N/A	Never
2101		P-event	0	N/A	Never
2102	Local Apps.	ACD-MIS Basic	0	N/A	Never
2103		ACD-MIS Add.Monit	0	N/A	Never
3512	On-Board Apps.	Toll Fraud Guard	0	N/A	Never
3513		Lua PMS	1	N/A	Never
5001	IP Related	IP Trunk	4	N/A	Never
5091	Networking	Networking overIP	0	N/A	Never
5103	IP Related	VoIP Channel	2(128)	N/A	Never
5111		IP Terminal	8	0	Never
5201	Client	Mobile extension	4	0	Never
5301		UCS SoftPhone Client	0	N/A	Never
5303		UCS SoftPhone Enhanced	0	N/A	Never
5305		UCS Client	0	N/A	Never
5310		UCS CRM Integration	0	N/A	Never

- In the **Upload a license file to the KTS** field, click **Browse** to locate the license file (XXXXXXXXX.lic).



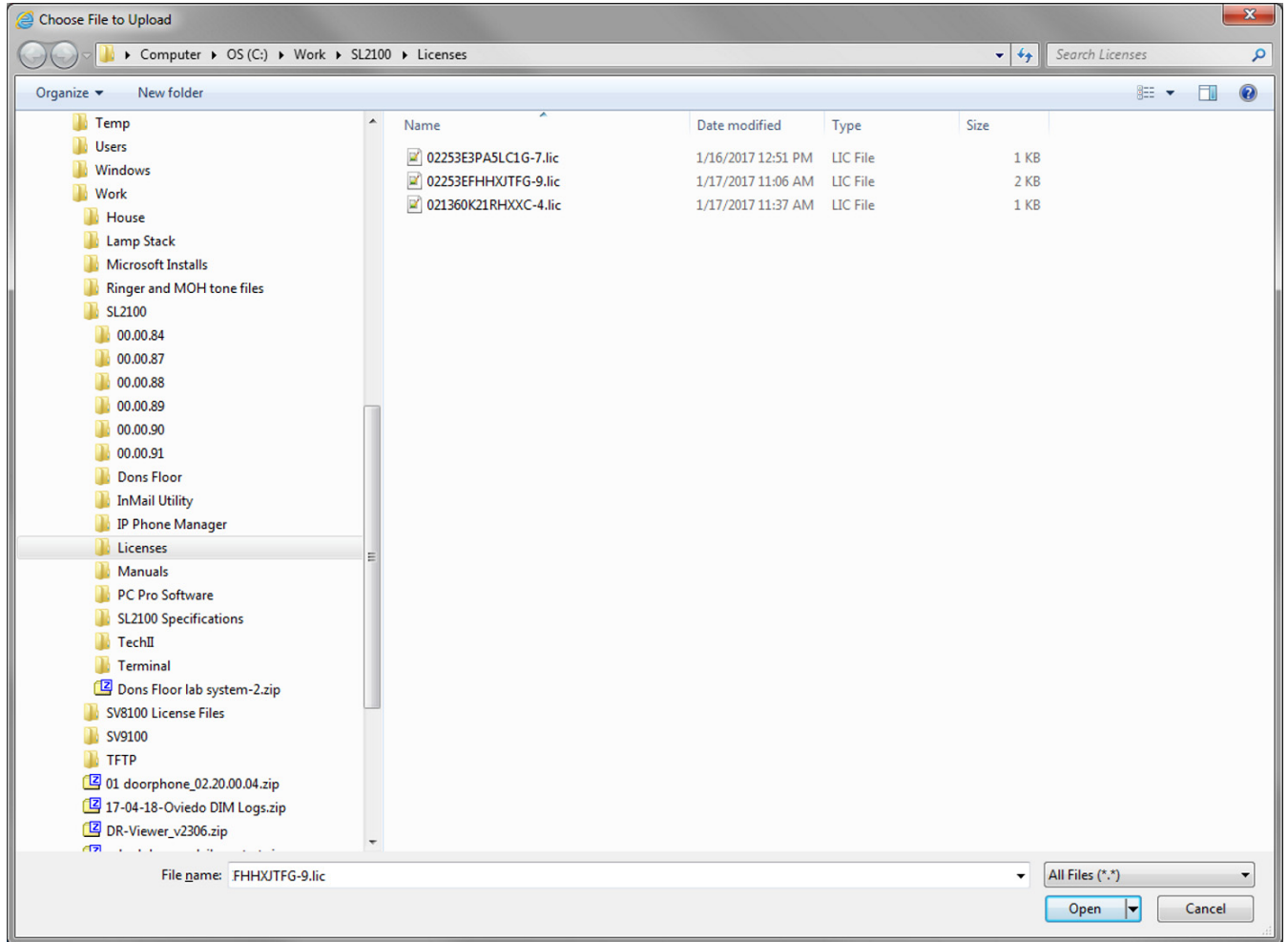
The license file is obtained by accessing the NEC Product Activation Server, or by activating the feature using PCPro (refer to Section 3 Feature Activation Using WebPro on page G-4).



This file can reside on the PC or you can copy it to a flash drive to reference if activating other locations.

- When the Open dialog is displayed, select the license file and click **Open**.

Figure G-7 Feature Activation Open File Dialog WebPro



8. Click **Upload** to send license file to the system. When prompted to proceed, click **OK**.
9. If the license file upload is successful, the feature is activated.



DIM File Download

Appendix H

SECTION 1 OVERVIEW

The DIM File Download feature supports downloading a DIM log file using PCPro. A DIM log file contains operational, system information, and critical information about the system.

SECTION 2 OPERATION

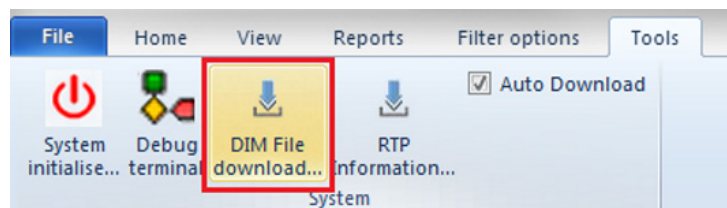
Use the following procedure to download a DIM log file using PCPro.

1. From the PCPro toolbar, select **Tools > System > DIM File Download**. A DIM File Download dialog box appears, [Figure H-1 DIM File Download](#).



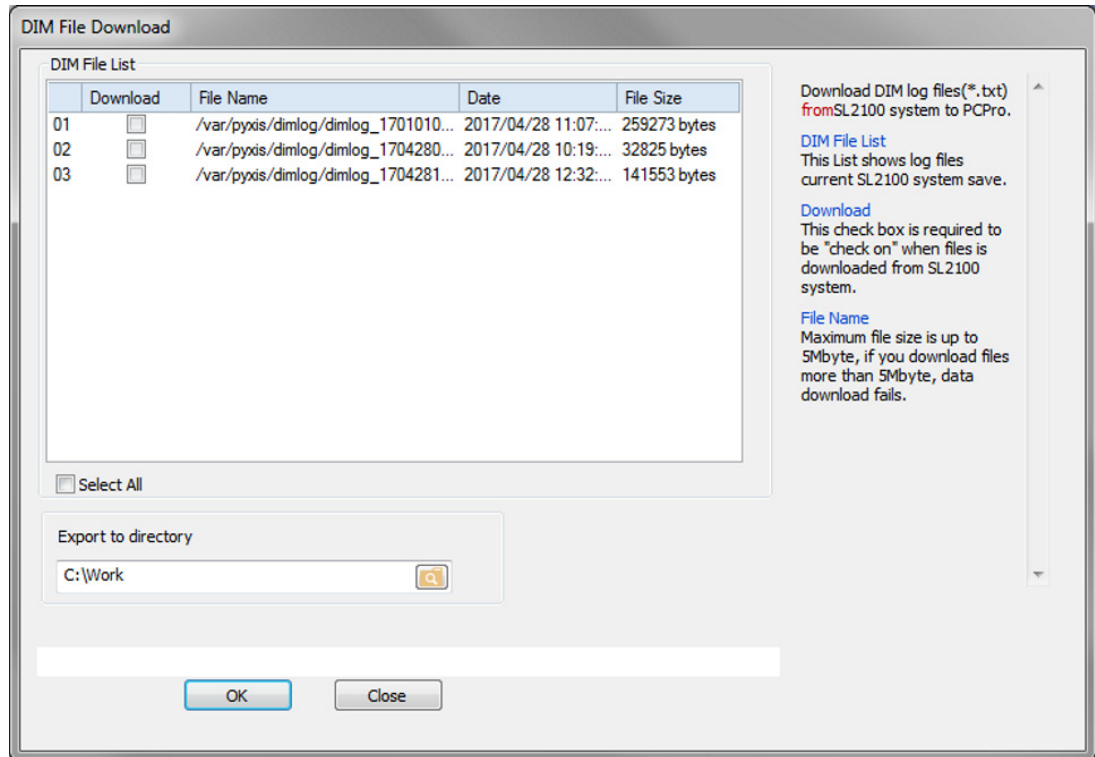
The DIM File Download menu is only available when PCPro is connected to the system.

Figure H-1 DIM File Download



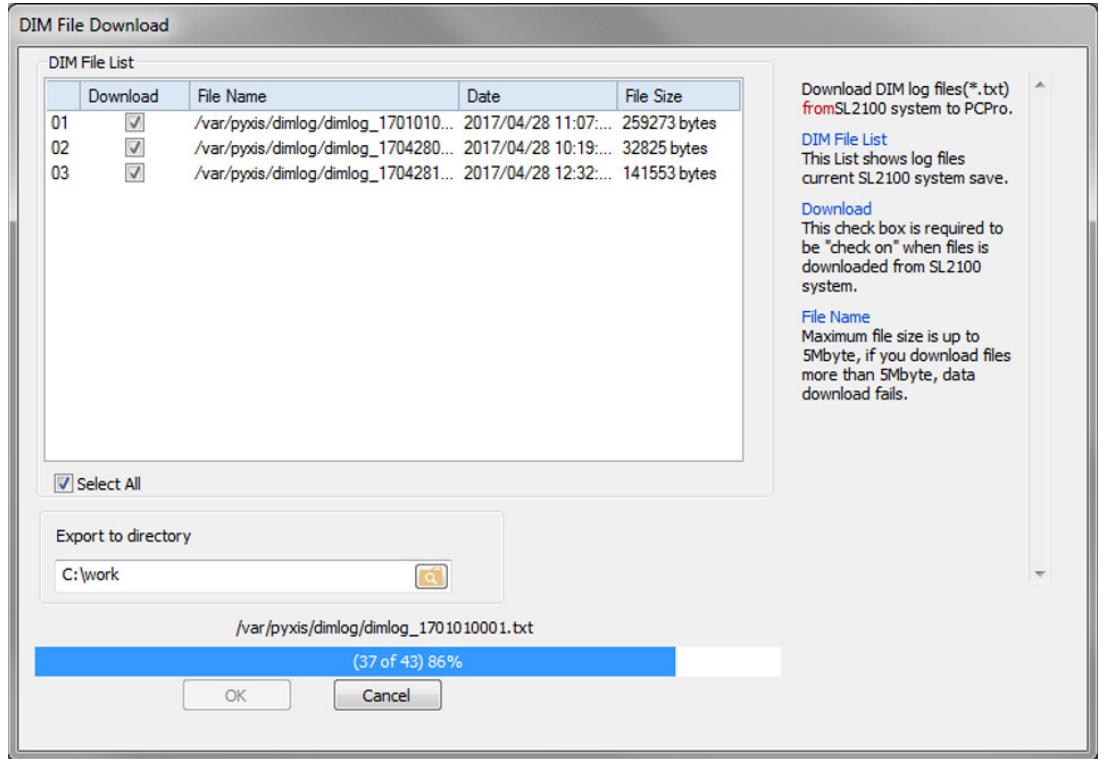
When the Download Dialogue runs, PCPro requests file information from "C:\\DATA.txt". The Dialog Box displays all existing files with "C:\\DATA*.txt".*

Figure H-2 DIM File Download Dialog Box



2. Check the **Download** box next to the file(s) to download from the system.
3. Click **OK**. PCPro begins downloading the selected file(s) from the system. A status line on the bottom indicates which file is being downloaded at that moment. Refer to [Figure H-3 DIM File Download Status on page H-3](#).

Figure H-3 DIM File Download Status



CAUTION

Limitation:

The maximum file size that it is available to download with PCPro is 1MB per file.

If the file is 1.5MB, the first 1MB will download, but the last 500 KB will not download.



Maintenance Features

Appendix I

SECTION 1 OVERVIEW

The following four features are supported:

- SRAM Information via Web / PC Pro.
- System Alarm display via Web Pro.
- T1/ISDN layer status display via Web / PC Pro.

SECTION 2 OPERATION

2.1 SRAM Information via Web Pro/PCPro

The following data is saved in internal SRAM and can be checked via Web/PC Pro. These are listed in PRG 93-xx. These programs are Read-Only, and cannot be accessed via User Pro.

The following user level can access the function:

- 1 = MF (Manufacturer Level)
- 2 = IN (Installer Level)
- 3 = SA (System Administrator Level 1)

Table I-1 Program Table

Program No.	Name	Input Data (Read Only)
93-01-01	Day/Night Mode Indicates current day/night mode per night mode service group.	1 = Mode 1 2 = Mode 2 3 = Mode 3 4 = Mode 4 5 = Mode 5 6 = Mode 6 7 = Mode 7 8 = Mode 8

Table I-1 Program Table (Continued)

Program No.	Name	Input Data (Read Only)
93-02-01	Automatic Transfer to Transfer Indicates Automatic Trunk Transfer setting status.	0 = Disable 1 = Enable
93-02-02	Trunk Port Disable by Service Code Indicates the Trunk Port Disable (Busy Out) status.	0 = Disable 1 = Enable
93-03-01	Call Forward - All/No Answer/Both Ring Indicates Call Forward -All/No Answer/Both Ring setting status per extension.	0: = Call Forwarding off 1 = Call Forwarding with Both Ringing 2 = Call Forwarding when No Answer 3 = Call Forwarding All Call
93-03-02	Call Forwarding Destination for Both Ring, All Call, No Answer Indicates Call Forward-All/No Answer/BothRing destination number set per extension	0-9, *, #, P, R,@ (Up to 24 digits)
93-03-03	Call Forward-Busy Indicates Call Forward-Busy setting status per extension.	0:Call Forward-Off 1:Call Forward-Busy or No Answer 2:Call Forward-Busy
93-03-04	Call Forwarding Busy Destination. Indicates Call Forward-Busy destination number set per extension.	0-9, *, #, P, R,@ (Up to 24 digits)
93-03-05	Call Forwarding – Follow-Me Indicates Call Forward-Follow-Me setting status per extension.	Extension Number (Up to 8 digits)
93-03-06	Call Forwarding Follow-Me Destination. Indicates Call forwarding follow-me extension number set per extension.	0 = Disable 1 = Enable
93-03-07	Do Not Disturb Indicates DND setting status per extension.	0 = No setting 1 = DND External 2 = DND Intercom 3 = DND Transfer 4 = DND All
93-03-08	Message Waiting (Set) Indicates extension number which you set Message Waiting.	Extension Number (Up to 8 digits)
93-03-09	Message Waiting (Receive) Indicates extension number when left Message Waiting	Extension Number (Up to 8 digits)

Table I-1 Program Table (Continued)

Program No.	Name	Input Data (Read Only)
93-03-10	Alarm Clock 1 Indicates Alarm Clock 1 setting status.	0 = Disable 1 = Enable
93-03-11	Preset time at Alarm 1 Indicates the time set in Alarm Clock 1.	Time set in Alarm Clock 1. When PRG 93-03-10 is "0", [00:00] is indicated.
93-03-12	Alarm Clock 2 Read only. Indicates Alarm Clock 2 setting status.	0 = Disable 1 = Enable
93-03-13	Preset Time at Alarm 2 Indicates the time set in Alarm Clock 2.	Time set in Alarm Clock 2. When PRG 93-03-12 is "0", [00:00] is indicated.
93-03-14	Forced Intercom Ring (ICM Call Type) Indicates ICM Call Type per extension.	0 = Disable (Voice) 1 = Enable (Signal)
93-03-15	BGM Indicates BGM setting status per extension.	0 = Disable 1 = Enable
93-03-16	Key Touch Tone Indicates Key Touch Tone setting status per extension.	0 = Disable 1 = Enable
93-03-17	Dial Block Indicates Dial Block setting status per extension.	0 = Disable 1 = Enable
93-03-18	Repeat Dial Indicates Repeat Dial setting status per extension.	0 = Disable 1 = Enable
93-03-19	Headset Mode Switching Indicates Headset Mode Switching setting status per extension.	0 = Disable 1 = Enable
93-03-20	Headset Ringing Mode Switching Indicates Headset Ringing Mode Switching setting status per extension	0 = Disable 1 = Enable
93-04-01	Redial Data Indicates the number stored in Outgoing call history.	Dial Data : 1~9, 0, *, #, P,R,@ (Up to 24 digits)
93-04-02	Name Indicates the name stored in Outgoing call history.	Up to 12 characters

Table I-1 Program Table (Continued)

Program No.	Name	Input Data (Read Only)
93-05-01	Set Automatic transfer at Department Group Call Indicates Automatic transfer setting status per Department Group.	0 = Disable 1 = Enable
93-05-02	Set Delayed Transfer at Department Group Call Indicates Delayed transfer setting status per Department Group.	0 = Disable 1 = Enable
93-05-03	Set Delayed Transfer at Department Group Call Indicates Delayed transfer setting status per Department Group.	0 = Disable 1 = Enable
93-06-01	IP Address of the 1st Party CTI Client Indicates the IP Address of the 1st Party CTI Client.	IP Address: xxx.xxx.xxx.xxx
93-06-02	Availability of 1st Party CTI Connection Indicates availability of the 1st Party Client connection.	0 = Not available 1 = Available

Figure I-1 Example of Program 93-01

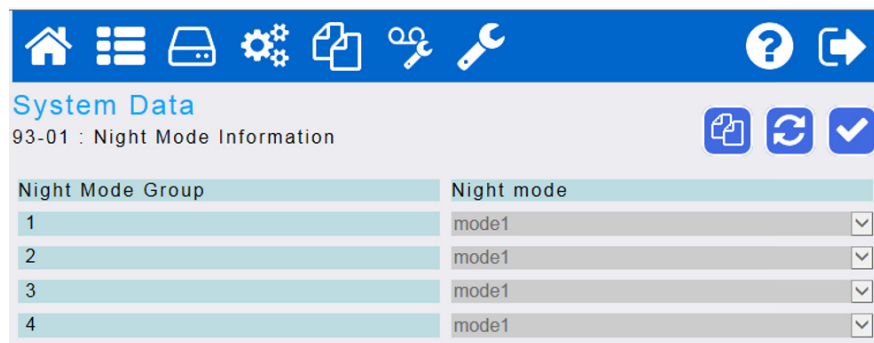


Figure I-2 Example of Program 93-02

System Data
93-02 : Trunk Information

Trunk	Automatic Transfer for Trunk	Trunk port disable by Service code
1	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>
7	<input type="checkbox"/>	<input type="checkbox"/>
8	<input type="checkbox"/>	<input type="checkbox"/>
9	<input type="checkbox"/>	<input type="checkbox"/>
10	<input type="checkbox"/>	<input type="checkbox"/>
11	<input type="checkbox"/>	<input type="checkbox"/>
12	<input type="checkbox"/>	<input type="checkbox"/>
13	<input type="checkbox"/>	<input type="checkbox"/>
14	<input type="checkbox"/>	<input type="checkbox"/>
15	<input type="checkbox"/>	<input type="checkbox"/>
16	<input type="checkbox"/>	<input type="checkbox"/>
17	<input type="checkbox"/>	<input type="checkbox"/>
18	<input type="checkbox"/>	<input type="checkbox"/>
19	<input type="checkbox"/>	<input type="checkbox"/>
20	<input type="checkbox"/>	<input type="checkbox"/>
21	<input type="checkbox"/>	<input type="checkbox"/>
22	<input type="checkbox"/>	<input type="checkbox"/>

Access Level : IN Software Ver. : 00.00.92

Figure I-3 Example of Program 93-03

The screenshot displays the 'System Data' configuration page for program 93-03, specifically 'Extension Information' for extension 101: MLT - EXT 101 - Port 001. The interface includes a top navigation bar with icons for home, menu, printer, settings, document, scissors, and wrench, along with help and refresh buttons. The main content area lists 20 configuration items, each with a description and a corresponding control element (dropdown menu, text field, or checkbox).

Item ID	Description	Current Setting
01	Call Forward-All/No Answer/BothRing	Call Forwarding off
02	Call forwarding destination for both ring, all call, no answer.	
03	Call Forward-Busy	Call Forward-Off
04	Call forwarding busy destination.	
05	Call Forwarding - Follow-Me	<input type="checkbox"/>
06	Call forwarding follow-me destination	
07	Do Not Disturb	No setting
08	Message Waiting (Set)	
09	Message Waiting (Receive)	
10	Alarm Clock 1	<input type="checkbox"/>
11	Preset time at alarm 1	00:00
12	Alarm Clock 2	<input type="checkbox"/>
13	Preset time at alarm 2	00:00
14	Forced Intercom Ring(ICM Call Type)	<input checked="" type="checkbox"/>
15	BGM	<input type="checkbox"/>
16	Key Touch Tone	<input checked="" type="checkbox"/>
17	Dial Block	<input type="checkbox"/>
18	Repeat Dial	<input type="checkbox"/>
19	Headset Mode Switching	<input type="checkbox"/>
20	Headset Ringing Mode Switching	<input type="checkbox"/>

Figure I-4 Example of Program 93-04

Redial List Number	Redial Data	Name
01	301	301
02	201	201
03	129	EXT 129
04	102	
05		
06		
07		
08		
09		
10		

Figure I-5 Example of Program 93-05

Department Group	Set Automatic transfer at Department Group call	Set Delayed transfer at Department Group call	Set DND at Department Group call
01	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
02	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
03	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
04	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
05	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
06	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
07	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
08	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
09	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

User : tech Access Level : IN Software Ver. : 00.00.92

2.2 System Alarm display via WebPro

The system alarm can be checked via WebPro. By clicking the System Alarm icon from the Maintenance Menu of WebPro, up to 100 alarm reports can be monitored. WebPro does not support an alarm report output.

The following user level can access the function:

1 = MF (Manufacturer Level)

2 = IN (Installer Level)

Figure I-6 WebPro System Alarm Submenu

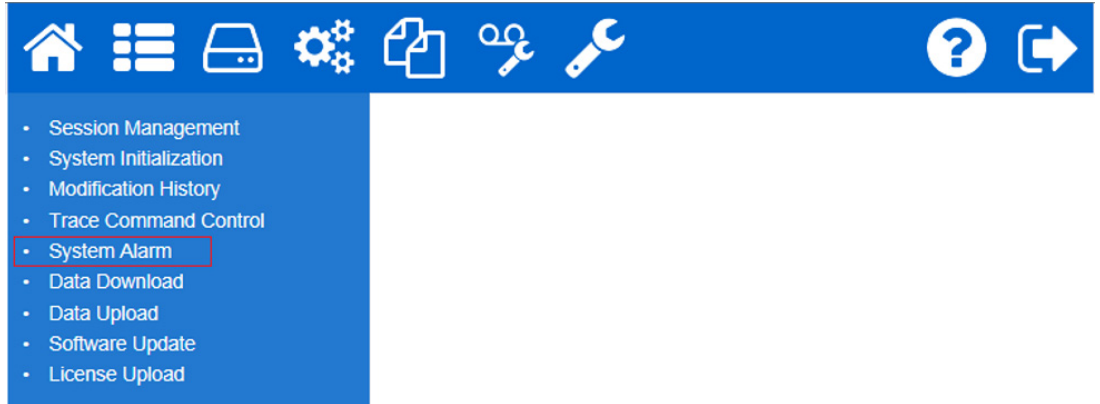



Figure I-7 System Alarm Screen

System Alarm 

LEVEL	No.	STATUS	DATE	TIME	ITEM	UNIT	SLOT	PRT	PARAMETER
MIN	0060	ERR	05/01/17	09:32	SIP Registration	Auth.	00	00	P01 C401
MIN	0060	ERR	05/01/17	09:33	SIP Registration	Auth.	00	01	P01 C401
MIN	0060	ERR	05/01/17	09:34	SIP Registration	Auth.	00	02	P01 C401
MIN	0060	ERR	05/01/17	09:35	SIP Registration	Auth.	00	03	P01 C401
MIN	0060	REC	05/01/17	10:03	SIP Registration		00	00	Prof:01
MIN	0060	ERR	05/01/17	10:03	SIP Registration	Auth.	00	00	P01 C401
MIN	0060	REC	05/01/17	10:04	SIP Registration		00	01	Prof:01
MIN	0060	ERR	05/01/17	10:04	SIP Registration	Auth.	00	01	P01 C401
MIN	0060	REC	05/01/17	10:05	SIP Registration		00	02	Prof:01
MIN	0060	ERR	05/01/17	10:05	SIP Registration	Auth.	00	02	P01 C401
MAJ	0064	ERR	05/01/17	10:05	VoIPDB-LAN Link	VoIPDB	00	00	
MAJ	0064	REC	05/01/17	10:05	VoIPDB-LAN Link	VoIPDB	00	00	
MIN	0060	REC	05/01/17	10:07	SIP Registration		00	00	Prof:01
MIN	0060	ERR	05/01/17	10:07	SIP Registration	Auth.	00	00	P01 C401
MIN	0060	REC	05/01/17	10:08	SIP Registration		00	01	Prof:01
MIN	0060	ERR	05/01/17	10:08	SIP Registration	Auth.	00	01	P01 C401
MIN	0060	REC	05/01/17	10:09	SIP Registration		00	02	Prof:01
MIN	0060	ERR	05/01/17	10:09	SIP Registration	Auth.	00	02	P01 C401
MIN	0060	REC	05/01/17	10:09	SIP Registration		00	03	Prof:01
MIN	0060	ERR	05/01/17	10:09	SIP Registration	Auth.	00	03	P01 C401
MIN	0060	REC	05/01/17	10:38	SIP Registration		00	00	Prof:01
MIN	0060	ERR	05/01/17	10:38	SIP Registration	Auth.	00	00	P01 C401
MIN	0060	REC	05/01/17	10:39	SIP Registration		00	01	Prof:01
MIN	0060	ERR	05/01/17	10:39	SIP Registration	Auth.	00	01	P01 C401
MIN	0060	REC	05/01/17	10:40	SIP Registration		00	02	Prof:01
MIN	0060	ERR	05/01/17	10:40	SIP Registration	Auth.	00	02	P01 C401
MIN	0060	REC	05/01/17	10:41	SIP Registration		00	03	Prof:01
MIN	0060	ERR	05/01/17	10:41	SIP Registration	Auth.	00	03	P01 C401
MIN	0060	REC	05/01/17	11:09	SIP Registration		00	00	Prof:01
MIN	0060	ERR	05/01/17	11:09	SIP Registration	Auth.	00	00	P01 C401
MIN	0060	REC	05/01/17	11:10	SIP Registration		00	01	Prof:01

User : tech Access Level : IN Software Ver. : 00.00.92

2.3 T1/ISDN Layer Status Display via WebPro

WebPro can monitor T1 / ISDN link status saved in PRG90-60 (T1/ISDN Layer Status Information).

This program displays layer status information for T1/PRI cards.

- = PRI card is installed but link is down

0 = Link is up

N/A = No PRI card is mounted.

The following user level can access the function:

1 = MF (Manufacturer Level)

2 = IN (Installer Level)

Figure I-8 90-60: T1/ISDN Layer Status Information

Slot	Link Status
00	n/a
01	0
02	n/a
03	n/a
04	n/a

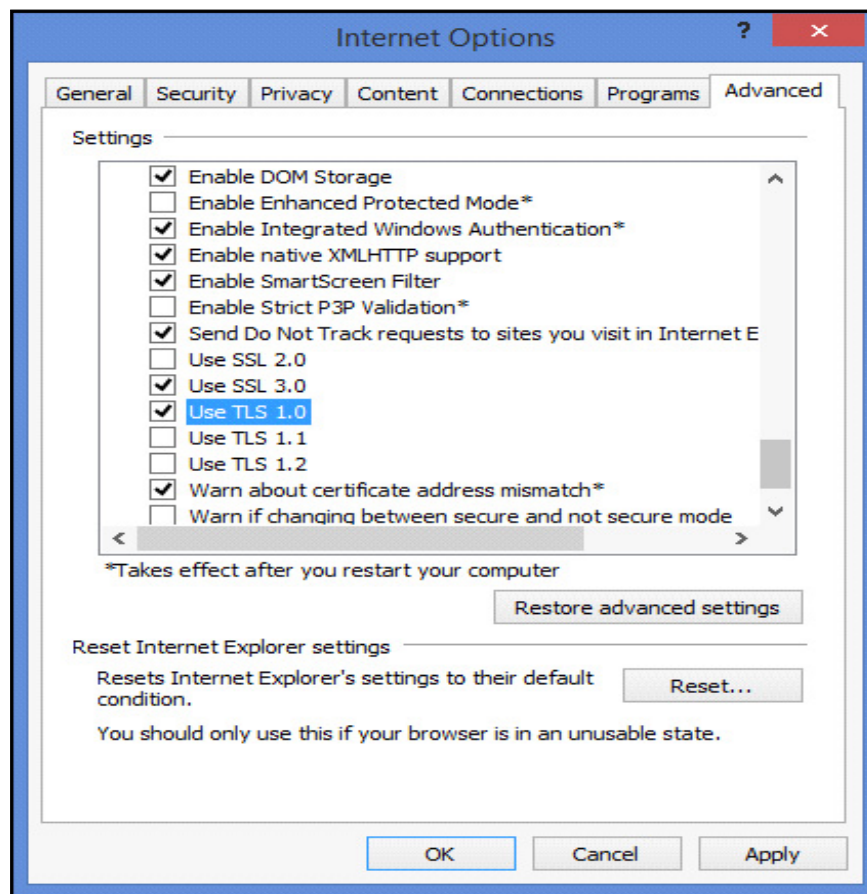
WebPro HTTPS Support - Certificate Installation

Appendix J

SECTION 1 BROWSER SETTINGS FOR SUPPORT OF TLSv1

Select **Tools > Internet Options > Advanced**, and Enable TLS 1.0 as shown in [Figure J-1 - Enabling TLS 1.0](#)

Figure J-1 Enabling TLS 1.0

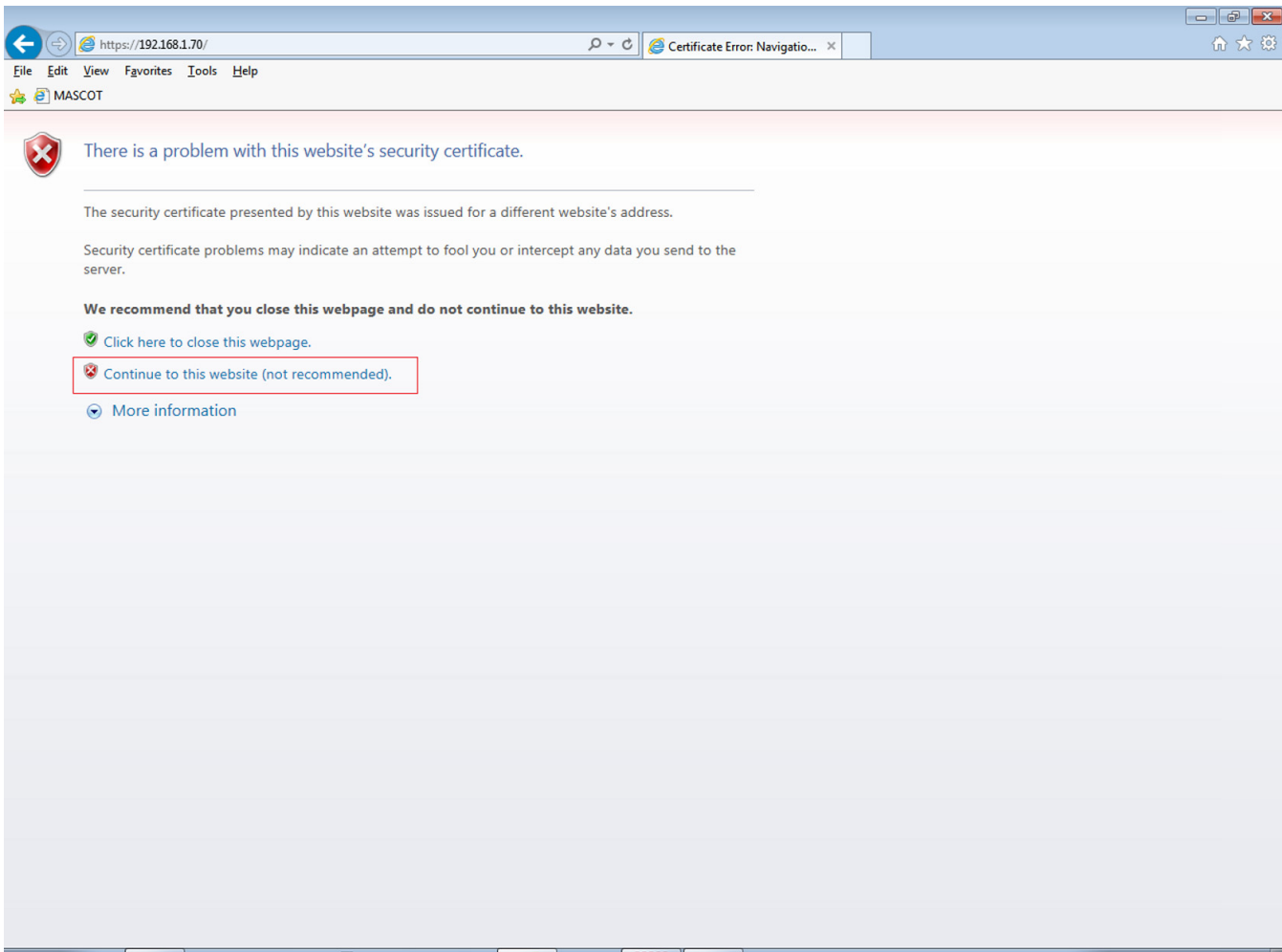


SECTION 2 CERTIFICATE INSTALLATION ON INTERNET EXPLORER

Access WebPro with a default NetBIOS Name of “SL2100” defined in program 10-62-02 or IP Address defined in program 10-12-01 or program 10-12-09.

A Certificate Error occurs when WebPro is accessed with a PC browser when a Certificate is not installed. In this case, select **Continue to this website (not recommended)** as shown in [Figure J-2 Continue to the Website](#).

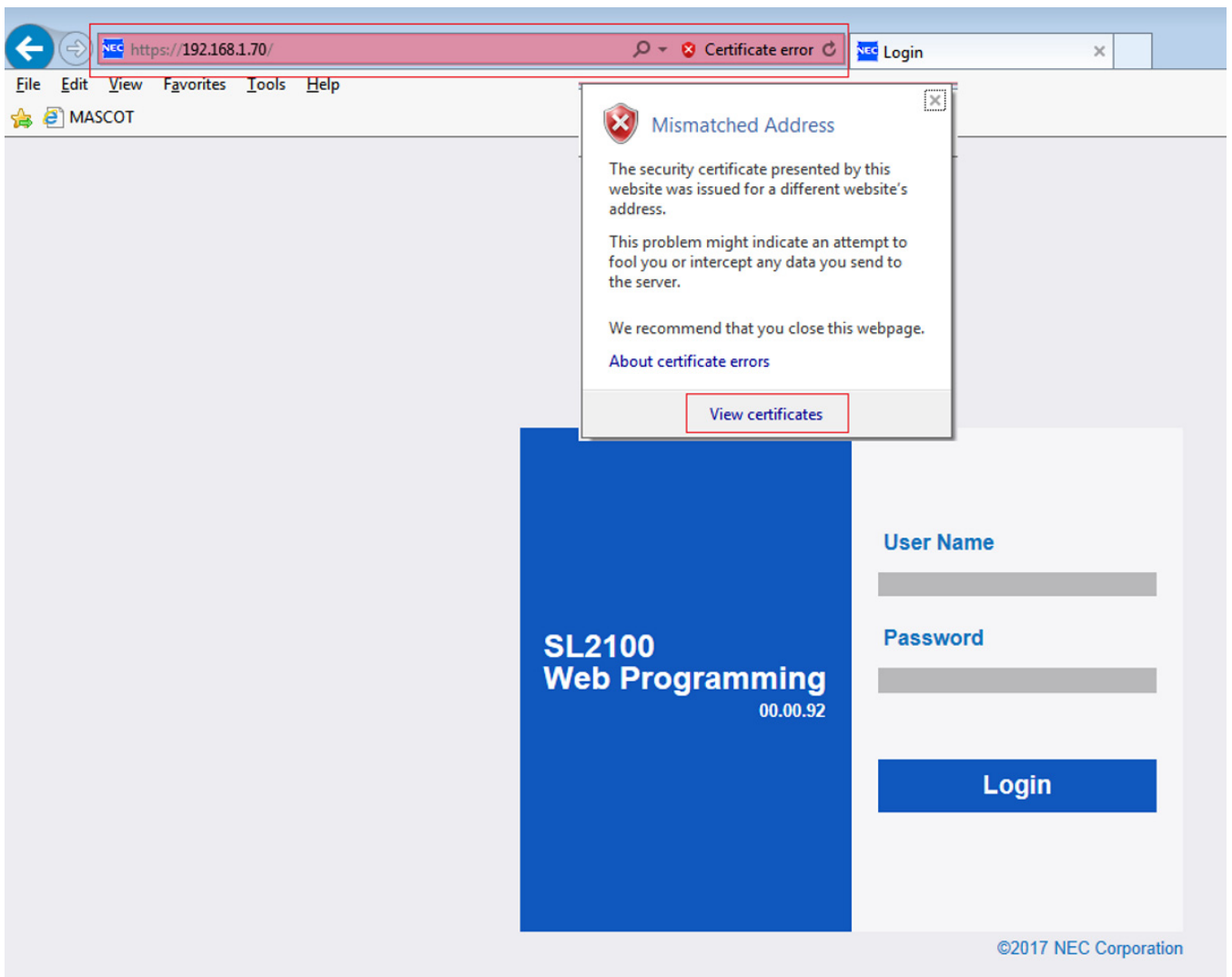
Figure J-2 Continue to the Website



SECTION 3 INSTALLATION OF THE CERTIFICATE FROM THE WEBPRO HOME SCREEN

A Certificate error occurs when accessing the WebPro home screen. The Webserver certificate must be downloaded to your computer browser. To Install the Webserver certificate on the browser, click **Certificate Error** then click **View Certificates**.

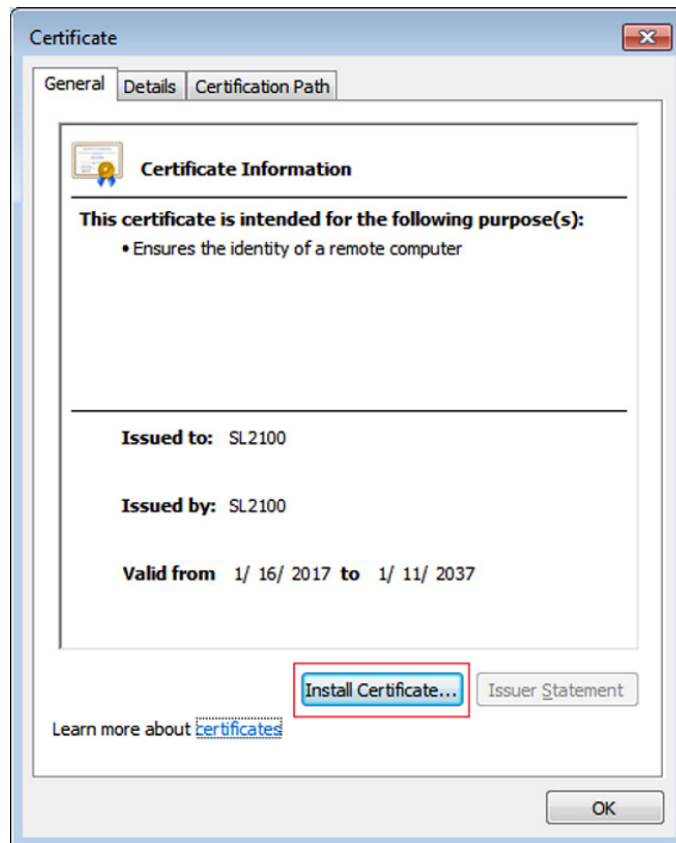
Figure J-3 Installing the Webserver Certificate



SECTION 4 START-UP OF THE CERTIFICATE IMPORT WIZARD – CERTIFICATE INFORMATION

In the Certificate form, click **Install Certificate**. Refer to [Figure J-4 - Install Certificate](#).

Figure J-4 Install Certificate



SECTION 5 EXECUTION OF THE CERTIFICATE IMPORT WIZARD – WELCOME TO THE CERTIFICATE IMPORT WIZARD

In the Certificate Import Wizard, click **Next** as shown in [Figure J-5 - Welcome to the Certificate Import Wizard](#).

Figure J-5 Welcome to the Certificate Import Wizard

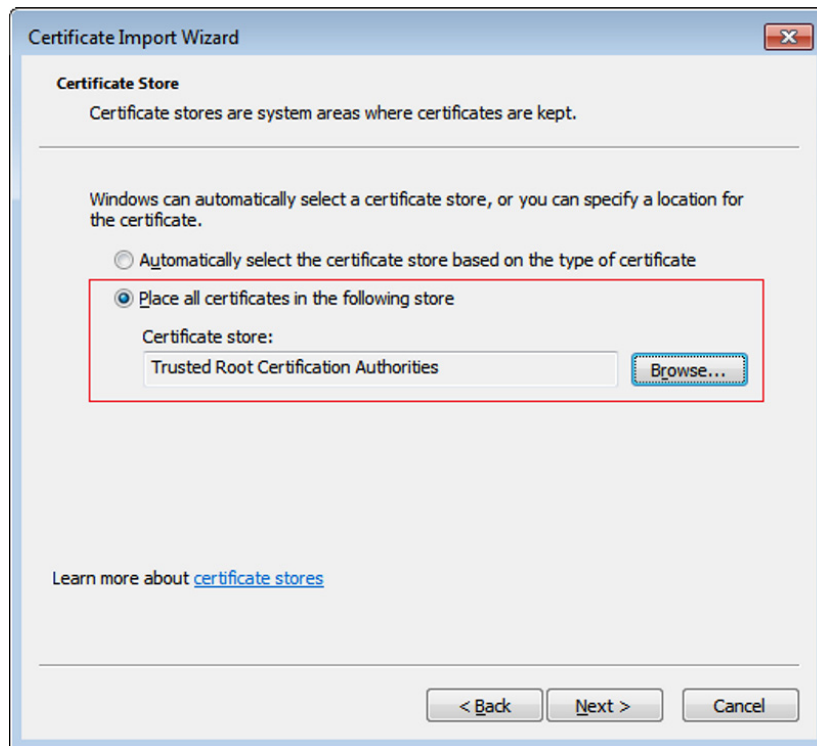


SECTION 6 EXECUTION OF THE CERTIFICATE IMPORT WIZARD – CERTIFICATE STORE

Select **Place all certificates in the following store** option. Click **Browse**, and then select **Trusted Root Certification Authorities** in Certificate store.

Click **Next**. Refer to [Figure J-6 - Certificate Import Wizard – Certificate Store](#).

Figure J-6 Certificate Import Wizard – Certificate Store



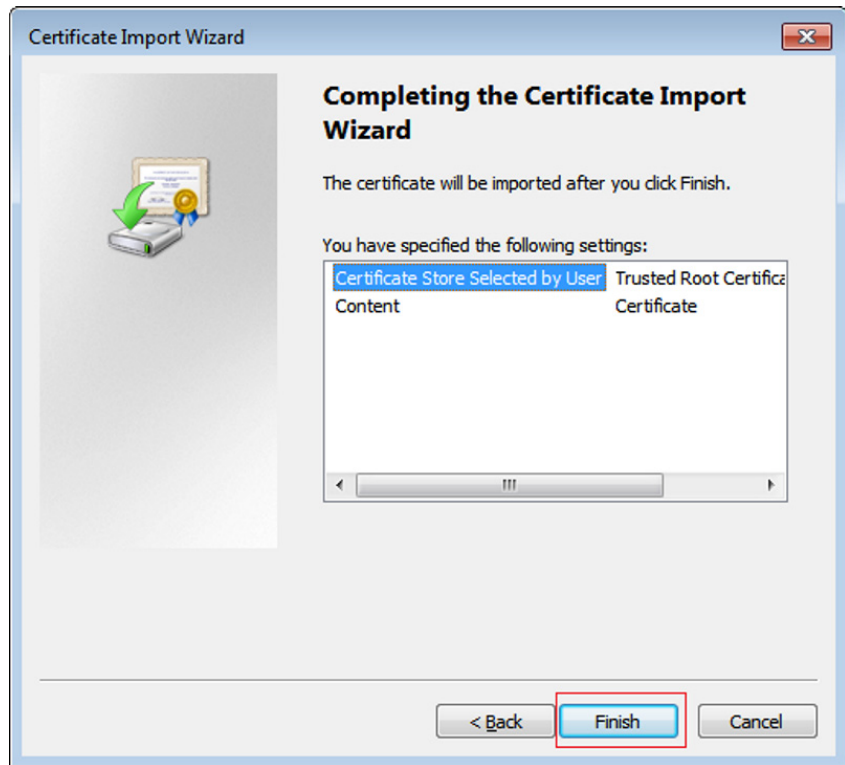
SECTION 7 EXECUTION OF THE CERTIFICATE IMPORT WIZARD – COMPLETING THE CERTIFICATE IMPORT WIZARD

Confirm the following contents on “Completing the Certificate Import Wizard”.

1. Certificate Store Selected by User: Trusted Root Certification Authorities
2. Content: Certificate

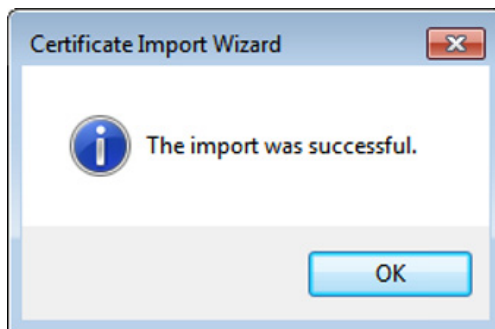
Click **Finish** to complete the installation as shown in [Figure J-7 - Completing the Certificate Import Wizard](#).

Figure J-7 Completing the Certificate Import Wizard



Click **OK** on Certificate Import Wizard. Refer to [Figure J-8 Completing Certificate Import Wizard](#).

Figure J-8 Completing Certificate Import Wizard



After completing the installation, restart the Internet Explorer browser. No warning message will appear while accessing the WebPro with the following URL:

Https://SL2100



NOTE

With HTTPS connection, security warning of server certificate appears if you access the SL2100 by IP Address or NetBIOS, which is not default

Web Pro Load/Save to PC Feature

Appendix K

SECTION 1 OVERVIEW

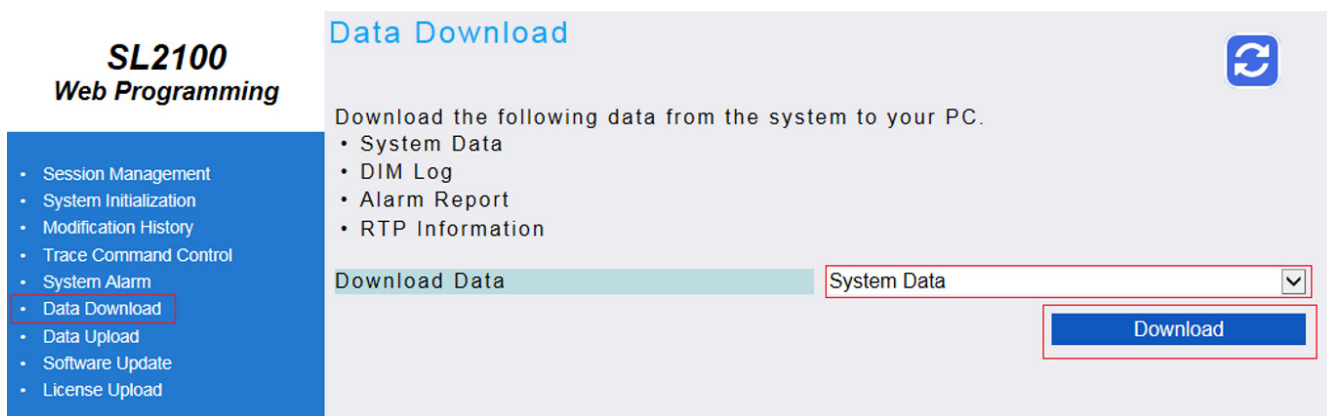
WebPro supports Upload/Download feature of the PCPro database, configuration files and Remote System Upgrade.

SECTION 2 OPERATION

2.1 WebPro Load/Save PCPro Configuration File

Data Upload and Data Download options can be found under the maintenance menu area of Web Pro. These options are used to make a backup or to upload a stored database to the system. The file type is .sl2 which is the same type used by PC Pro.

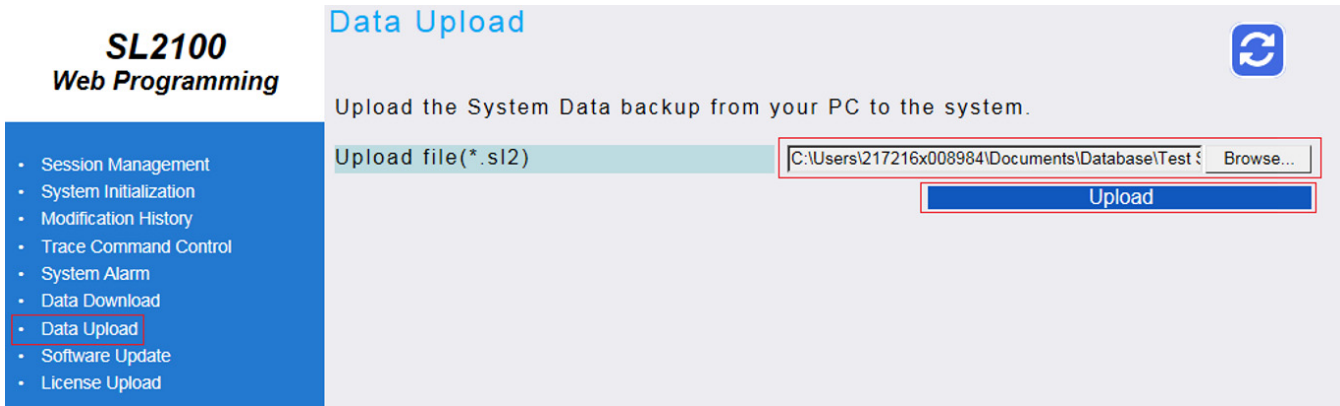
Figure K-1 WebPro – Data Download Submenu



2.2 Load from PC

1. From the Maintenance menu choose **Data Upload**.

Figure K-2 WebPro – Data Upload Submenu

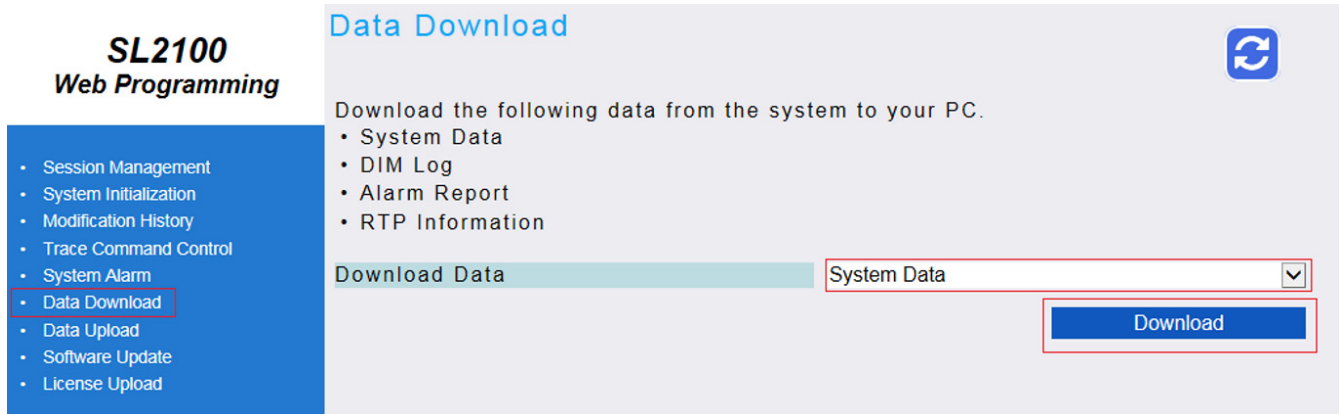


2. Click the **Browse** icon and go the PC Pro configuration file location on the support PC.
3. Click the **Upload** icon to start the configuration file upload.
4. After upload is complete, 'Load process completed' is displayed and the system reboots automatically.

2.3 Save to PC

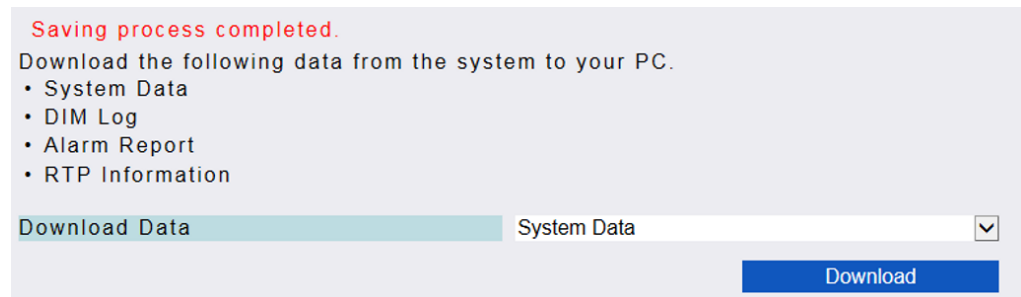
1. Click the **Data Download** icon.

Figure K-3 WebPro – Data Download Submenu



2. Click the **Download** icon to start configuration file download.
3. When prompted, choose to **save as** and save on support PC with descriptive file name.

Figure K-4 Save Completed Screen



4. When download is completed, 'Saving process completed' is displayed.

SECTION 3 CONDITIONS

- ❑ User level (PRG90-02-03) has to be 3 = SA (System Administrator Level 1) or higher.
- ❑ During loading or saving the configuration file, no other user can log into the system through PCPro, WebPro or Phone Programming. On the other hand, if someone is logged into the system, this feature does not work.



After completing the upload, the system reboots automatically, even if trunk lines and extensions are on a call. It is recommended WebPro Upload should be performed only when system is not in use.

Store Statistical Information of RTP

Appendix L

SECTION 1 OVERVIEW

The SL2100 can store RTP statistical information which can be downloaded in a log file using PCPro, or to USB via TEL Pro. A RTP log file contains operational, system information and critical information about RTP.

SECTION 2 OPERATION

Use the following procedure to download a RTP log file using PCPro.

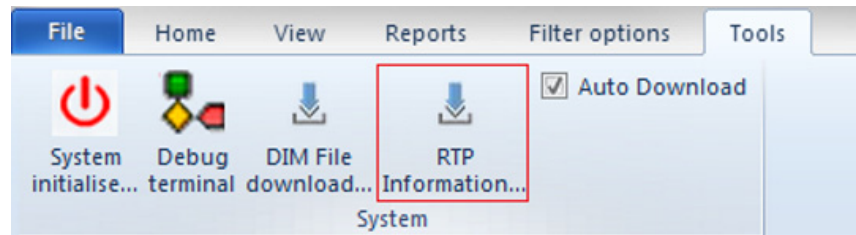
1. From the PCPro toolbar, select **Tools > System > RTP Information**. A RTP File Download dialog box appears. Refer to [Figure L-1 RTP File Download](#).



NOTE

The RTP File Download menu is only available when PCPro is connected to the system.

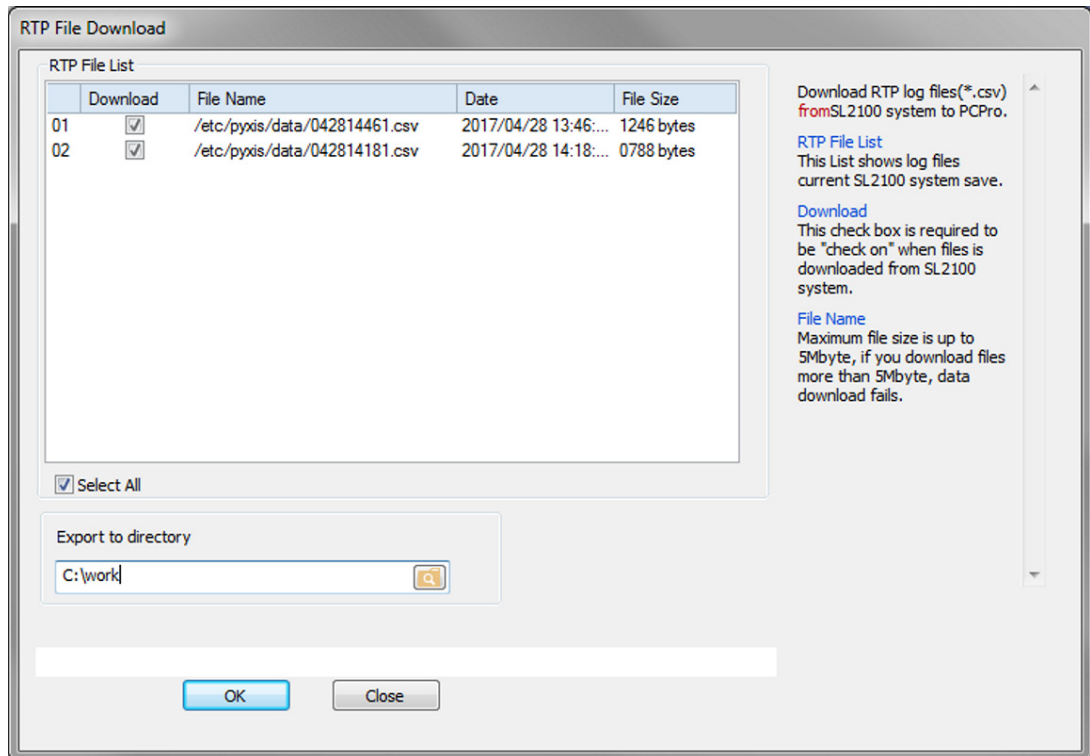
Figure L-1 RTP File Download



NOTE

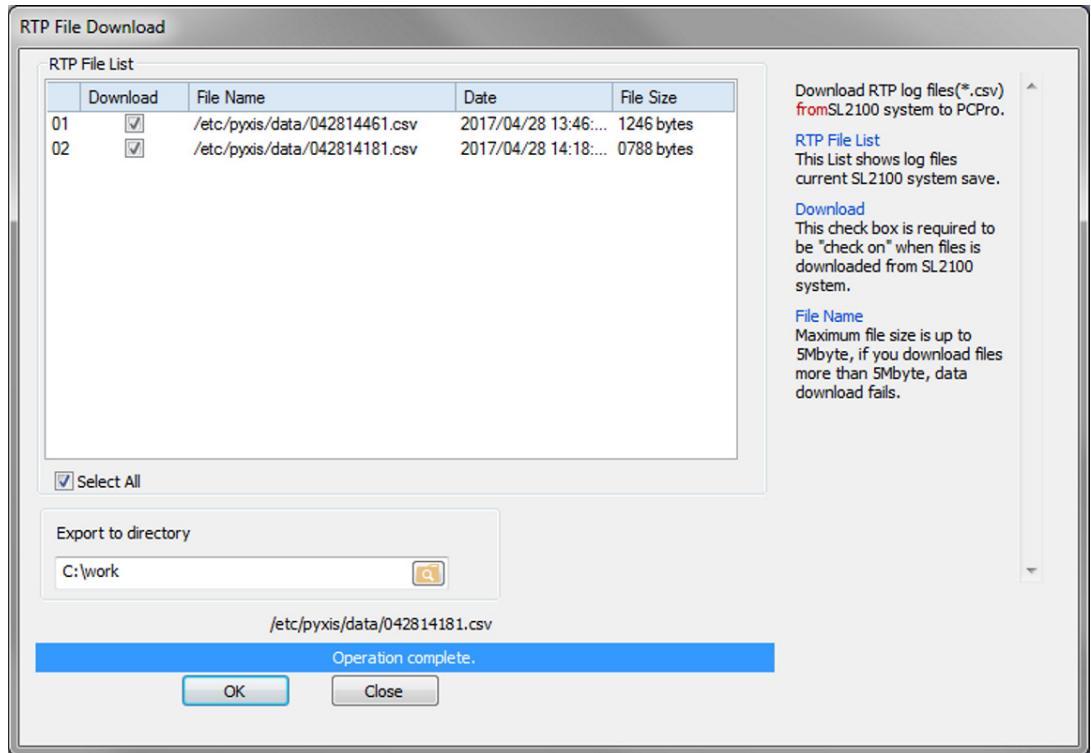
When the Download Dialogue runs, PCPro requests file information from “/etc/pyxis/data”. The Dialog Box displays all existing files with a “.csv” extension in that folder.

Figure L-2 RTP File Download Dialog Box



2. Check the Download box next to the file(s) to download from the system.
3. Click **OK**. PCPro begins downloading the selected file(s) from the system. A status line on the bottom indicates which file is being downloaded at that moment. Refer to [Figure L-3 RTP File Download Dialog Box \(showing complete\)](#) on page L-3.

Figure L-3 RTP File Download Dialog Box (showing complete)



SECTION 3 DATA FIELDS

GUIDE TO FEATURE PROGRAMMING

Table L-1 Data Fields

Data Name	Data Outline
Start Date	The date when the call has started
End Date	The date when the call has ended
Ext/TRK Number	
Ext/TRK Number (Call Partner)	
Cumulative Cnt	Receiving RTP packet loss total
Max Fraction Lost	When the max packet loss rate and the average packet loss rate are the same value, the packet loss is occurring constantly. When the max packet loss rate is high compared with the average packet loss, it is regarded as a temporary packet loss.

Table L-1 Data Fields (Continued)

Data Name	Data Outline
Average Fraction Lost	When exceeding 1%, reconsideration of the network environment is needed.
Number of Sent RTP packets	Number of Sent RTP packets
Number of Received RTP packets	Number of Received RTP packets
Cumulative Cnt (Remote)	Receiving RTP packet loss total of Remote side (IP Terminal, IP Trunk, etc.).
Max Fraction Lost (Remote)	The max packet loss rate of the remote side.
Max Round Trip Time (Remote)	The maximum round trip time of a packet.
Number of Sent RTP packets (remote)	The number of Sent RTP packets (remote)
Sender Statistical Information on System Side	
Sent Sender Report Ntp Timestamp	Sent Sender Report Ntp Timestamp
Sender SSRC	DSP of VOIPDB determines SSRC at random at the time of channel opening.
Receiver Statistical Information on System Side	
Max Inter Arrival Jitter	The max interval of the arrival time of an RTP packet.
Average Inter Arrival Jitter	The average interval of the arrival time for an RTP packet.
Remote Sender SSRC	DSP of VOIPDB determines SSRC at random at the time of channel opening.
Receiver Information of Remote Side	
Average Round Trip Time	Average round trip time
Sender Statistical Information on Remote Side	
Sent Sender Report Ntp Timestamp	Sent Sender Report Ntp Timestamp
Sender SSRC	DSP of VOIPDB determines SSRC at random at the time of channel opening.
Receiver Statistical Information on Remote Side	
Max Inter Arrival Jitter	The max interval of the arrival time of an RTP packet.
Average Fraction Lost	When exceeding 1%, reconsideration of the network environment is needed.
Average Inter Arrival Jitter	The average interval of the arrival time of an RTP packet.

Table L-1 Data Fields (Continued)

Data Name	Data Outline
Remote Sender SSRC	DSP of VOIPDB determines SSRC at random at the time of channel opening.
Optional Information	
Type	0: ICM MLT/STD SIP 1: TRK SIP/H323 4: SL NET
Src systemID	Source System ID
Src port	Source Logical Port
Des systemID	Destination System ID
Des port	Destination Logical Port

SECTION 4 GUIDE TO FEATURE PROGRAMMING

This guide provides a list of associated Programs that support this feature.

Program/Item No.	Description/Selection	Assigned Data	Default	Level
11-10-54	Service Code Setup (for System Administrator) – Save Store Statistical Information of RTP RTP Information is saved to the CPU. Although saved every 1000 calls, it is saved instantly with input of this service code.	(Up to 8 digits)	671	1
20-07-35	Class of Service Options (Administrator Level) – Save Statistical Information of RTP Enable this option to give ability to enter service code 671 to save Statistical Information to the CPU	0 = Disable 1 = Enable (COS 1~15)	COS 1~14 = 0 COS 15 = 1	1

SECTION 5 RTP LOG INFORMATION

1. Stations

Table L-2 Stations

Terminal Type	Applied/Not Applied Terminal *1	Applied/Not Applied Terminal *2	Remarks
IP7WW-12TXH-B1	No	No	
IP7WW-24TXH-B1	No	No	
IP7WW-8IPLD	Yes	No	
SLT	No	No	
Standard SIP Phone	Yes	Yes	

*1 - Statistical RTP Information is available if call uses VoIPDB.

*2 - Statistical RTP Information is available if terminal supports RTCP.

2. Trunks

Table L-3 Trunks

Trunk Type	Applied/Not Applied System *1	Remarks
Analog Line	No	
ISDN (PRI)	No	
SIP	Yes	
H323	Yes	
SL Net	Yes	

*1 - Statistical RTP Information is available if remote side is supporting RTCP.

Conditions

- When RTP is closed and reopened by hold, transfer, etc., it is saved as a separate call.
- The saved RTP information is written to the CPU every 1000 calls. Once saved, the information is deleted from CPU RAM.
- When a write error occurs during save to the CPU, the file save is canceled, and the information is deleted from CPU RAM.

- The CPU considers saving RTP information a low priority so it does not affect other services.
- When saving RTP Information to the CPU, and 30 MB or less is available on the CPU, previous RTP files are deleted until 30 MB or more is available.
- When the remote side does not support RTCP, only the RTP information of the system side is available. All RTP information on the remote side will be set to 0.
- The RTP Statistical information of VoIP on the Secondary side of SL Net will be saved by the Primary system.
- For this feature PRG 20-07-35 must be enabled (1).
- To save RTP information, at idle phone press [Speaker], 6, 7, 1.



SL2100

PC Programming Manual

NEC Corporation of America

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