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Documentation

Dukane STARCall RTU Guide

Version 3.x

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Intelli-Site

Security Management Software
Dukane STARCall RTU Guide

PC Software RTU Interface Guide
For Windows 7 SP1, 2008 R2 SP1, XP SP3 & 2003 SP2

Version 3.x

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Section 1 – Introduction

This section describes the following:

- Overview
- Technical Support Assistance

Overview

The Dukane STARCall RTU (Receiver/Transmitter Unit) is the Intelli-Site software representation of a Dukane STARCall Intercom and Public Address (PA) system. For purposes of this document, the term RTU is synonymous with a Dukane STARCall system.

The Dukane STARCall RTU is a General Protocol RTU that provides for user configuration of all aspects of the Dukane STARCall network, including:

- System Status – On/Off-Line
- System Settings – Configuration of the Dukane STARCall "parent" node.
- Communications Settings - In conjunction with Driver Services.
- Substation Configuration – The ability to add substations (in groups of up to 16 units) in order to monitor call-ins (from the Substations) and connection status.
- Exchange Configuration – Multiple exchanges – each equipped with multiple Master Stations – can be configured for control and monitoring of:
    - Paging Zone Connection
    - Substation Connection
    - Master Station Status
    - Master Station Front-Panel Control

Technical Support Assistance

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Technical Support

Technical support is available via Telephone, Fax or Email. Contact OSSI Technical Support 8:00 AM to 5:00 PM Central Standard time. If calling after hours, please leave a detailed voice mail message, and someone will return your call as soon as possible.

E-Mail: support@ossi-usa.com
Fax: 262-522-1872 (Attention Technical Support)
Local: 262-522-1870

When calling, please be at the computer prepared to provide the following information:

- Product version number, found by selecting the **About** button from the Intelli-Site Menu Application Bar.
- Product serial number used for registration.
- The type of computer being used including, operating system, processor type, speed, amount of memory, type of display, etc.
- Exact wording of any messages that appear on the screen.
- What was occurring when the problem was detected?
- What steps have been taken to reproduce the problem?

Section 2 – Dukane STARCall RTU Configuration

This section describes the following Design Mode RTU activities in Intelli-Site.

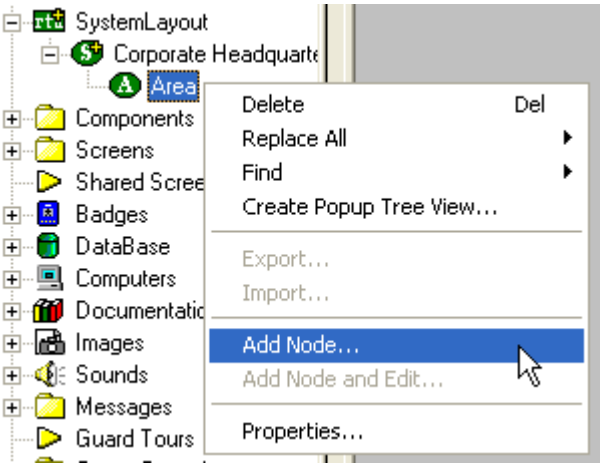
- Adding a Dukane STARCall RTU to the Intelli-Site tree
- General Protocol RTU Configuration

Adding a Dukane STARCall RTU to the Intelli-Site Tree

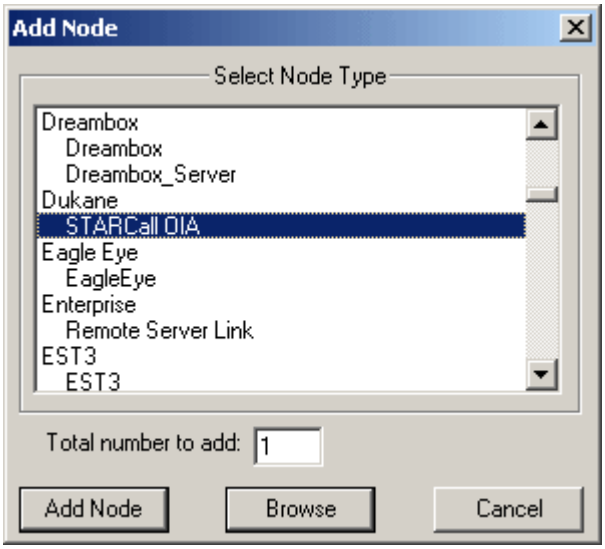
The following section will describe how to add one or more Dukane STARCall RTU nodes to the tree. All procedures described in this section are accomplished in Design Mode.

Add an RTU – Procedure

1. Expand the System Layout Node and Right-Click on an Area. Select **Add Node...** from the Shortcut Menu as shown below:



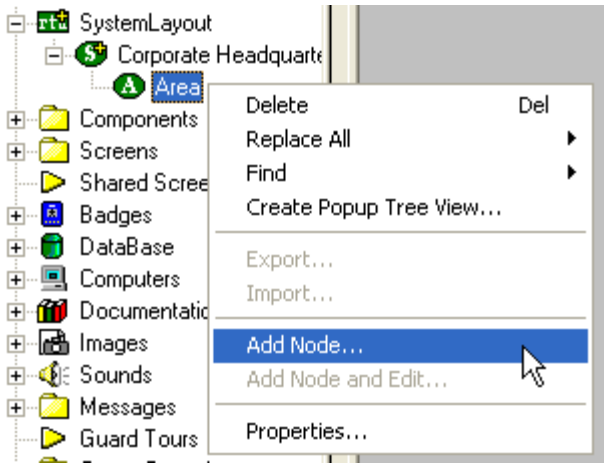
2. As mentioned previously, the Dukane STARCall RTU is of the Generic Protocol type. The default RTU includes 8 substations/extensions. More can be added. Note: The total number of Dukane STARCall RTUs that may be added must not exceed 65535 for a given domain.



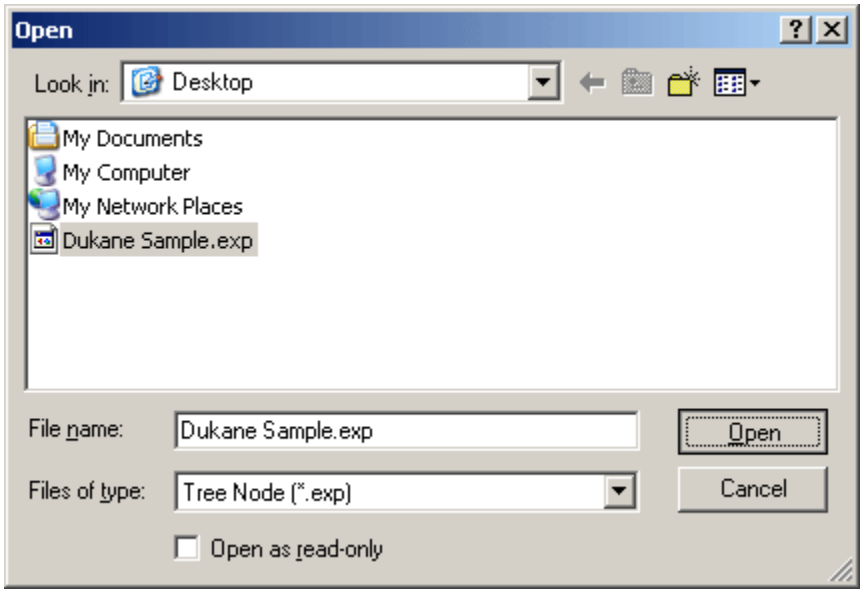
3. The RTU(s) will be added to the tree and the system level Text-To-Speech message **"Node Added"** will sound.

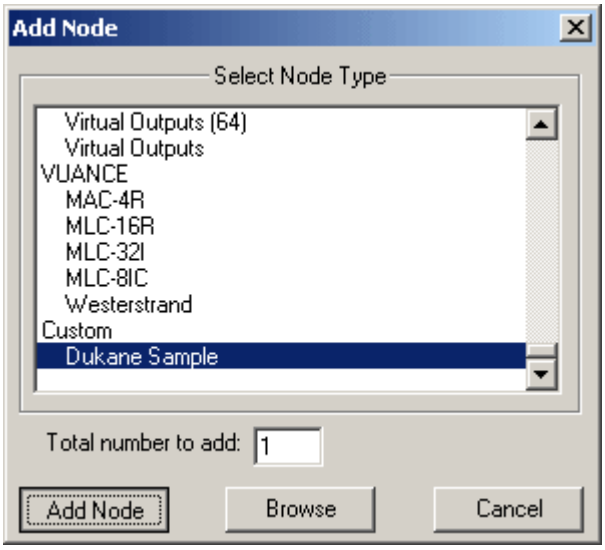
Import an RTU – Procedure

1. Expand the System Layout Node and Right-Click on an Area. Select **Add Node...** from the Shortcut Menu as shown below:

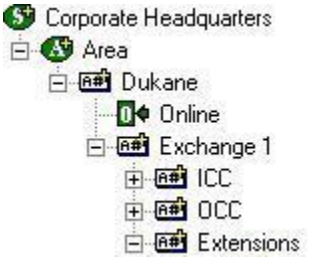


2. Select the **Browse** button on the **Add Node** dialog: A browse window will open. Browse to the appropriate location then select the RTU .exp file you wish to import and select the **Open** button. A new type (**Custom**) will be automatically added to the **Add Node** dialog and the imported .exp will be listed below the **Custom** type.





3. Select the imported RTU then enter the number of Dukane STARCall RTUs you wish to add to the tree in the **Total number to add:** edit box. You may add multiple RTUs to an area.
4. The RTU(s) will be added to the tree and the system level Text-To-Speech message **"Node Added"** will sound.



Dukane STARCall RTU Settings

The following section describes configuration of the Dukane STARCall RTU.

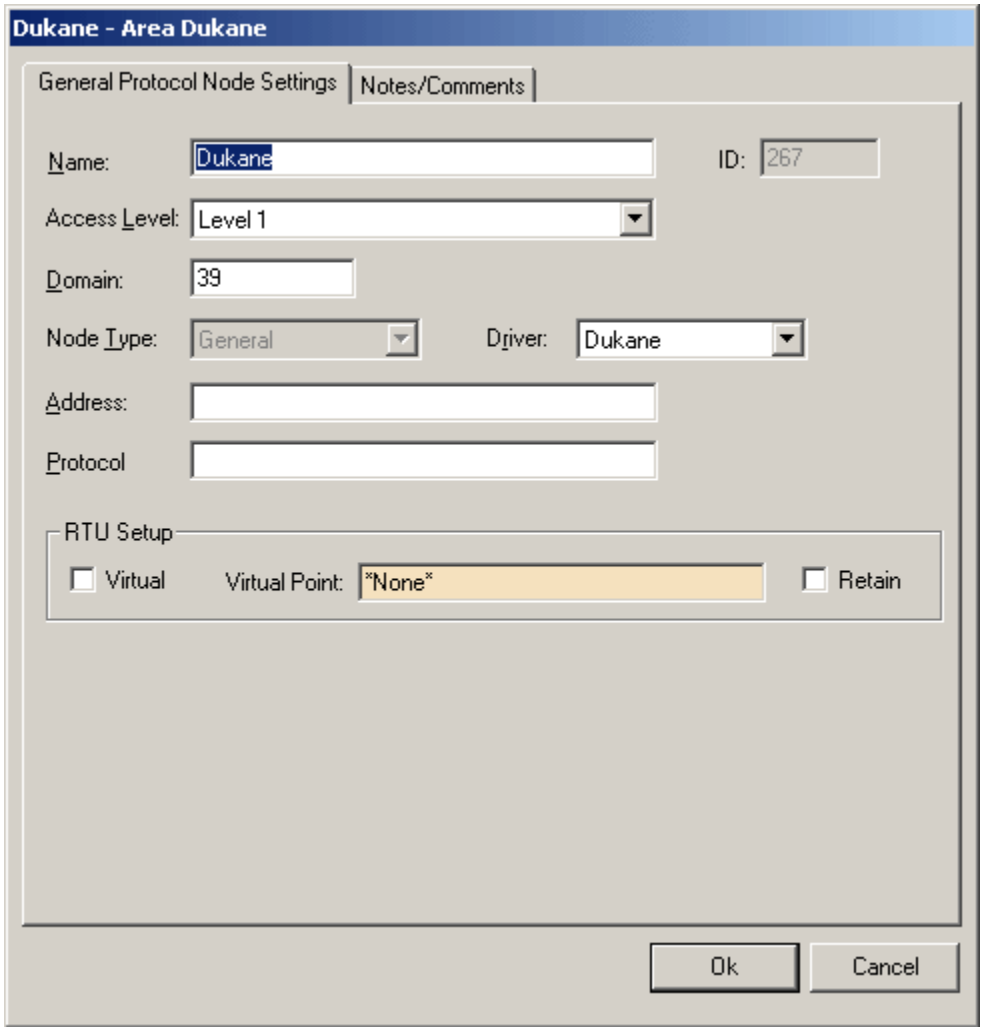
The Dukane STARCall RTU consists of a parent (the basic system node), the System Online I/O point and one child node, "Exchange 1":

- **Exchange(s)** – a collection of all:
  - Contains paging inputs
  - Contains paging outputs
  - Contains Extensions of all stations

RTU Node (Parent Node)

The parent (Dukane STARCall) node is configured by **Right-Clicking** on the RTU and selecting **Properties...**

General Protocol Node Settings Tab



1. **Name: -** enter a descriptive name for the system here. Example: Primary PA System.
2. **Access Level: –** this is the Access Level of the node object (RTU).
3. **Domain: –** the domain identifies the communications chain used for the Dukane STARCall system, i.e., a communications (COM) port or IP address and is tied to the domain setting on the Dukane STARCall driver in Driver Services.exe.

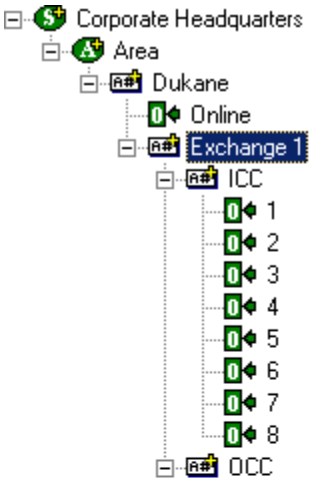
Note: The Domain of an Ethernet-based (TCP/IP), or RS-232-based Dukane STARCall will be unique for each Dukane STARCall system.

4. **Node Type: –** This field will be "grayed-out" and should not change.
5. **Driver: –** This combo-box field must be set to Dukane STARCall.
6. **Address: –** Remains blank.
7. **Protocol: –** Remains blank for this node.
8. **RTU Setup: -** this area is used to configure the virtual state characteristics of the node.
    a. **Virtual Point: -** Check this box to "virtualize" the Dukane STARCall system. When an RTU has been virtualized all server-to-driver services communications stop and will not be reinitiated until the RTU has been un-virtualized. Drag-and-drop a virtual I/O point into the drop field. This I/O point will be set high whenever the Dukane STARCall system is virtualized.
    b. **Retain: -** Reserved for future use and has no function at this time.

Notes/Comments Tab

This tab **a**llows the programmer to enter descriptive text regarding the RTU (programmer's notes). The programmer may enter any number of descriptive text lines (use CTRL+M to enter a new line).

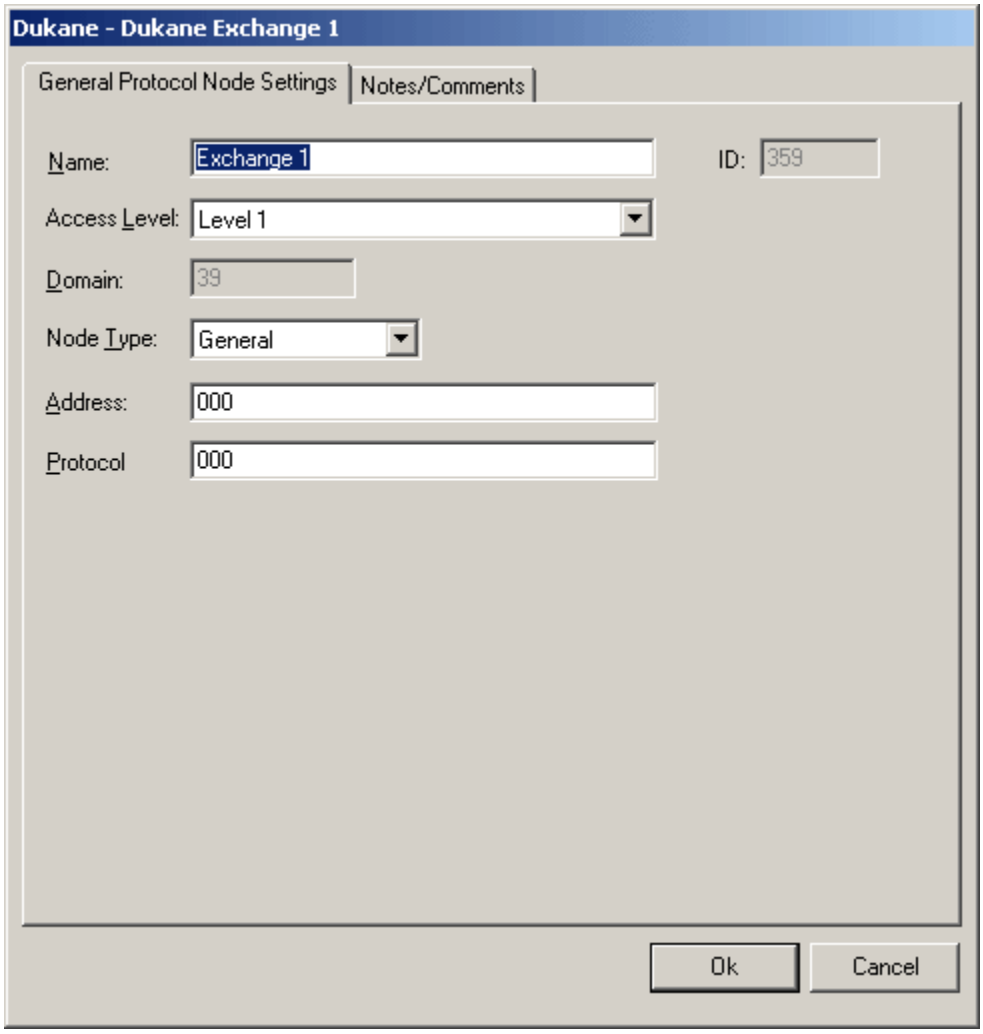
The text entered on this tab may be printed in a special report: **Project Notes Report**. This is a useful tool for generating programmers' comments as a part of the "as-built" system documentation.



Exchanges

The Exchange "parent" node is configured by expanding the **Dukane STARCall** folder then **Right-Clicking** on the desired Exchange and selecting **Properties...**

General Protocol Node Settings Tab



1. **Name: -** enter a descriptive name for the system here.
2. **Access Level: –** this is the Access Level of the node object (RTU).
3. **Domain: –** This entry is derived from the Dukane STARCall System Node and is grayed-out (cannot be changed).
4. **Node Type: –** This combo-box field must be set to General.
5. **Address: –** This must be set to ### (Exchanges).

6. **Protocol: –** This must be set to ### (Exchanges).

Notes/Comments Tab

This tab **a**llows the programmer to enter descriptive text regarding the RTU (programmer's notes). The programmer may enter any number of descriptive text lines (use CTRL+M to enter a new line).

Note: If there is only one Exchange, then the Address field in the properties box MUST stay as its default, "000". If there are more than one Exchanges, then they must be addressed 001, 002, 003, etc…

ICC – These are the Dukane STARCall input points

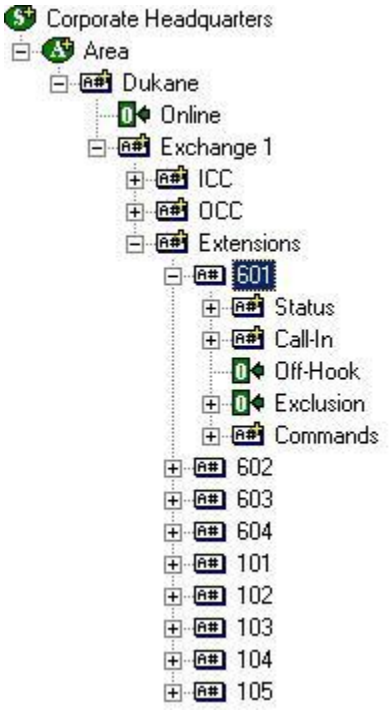
OCC – These are the Dukane STARCall output points

Extension – These are your intercom/phone locations and are defined with 3, 4, or 5 digit numbers only.

Note: The extensions must be 3, 4, or 5 digits consistently throughout your entire project. For example, if you decide to use 4 digits for your first extension, then all extensions from then on must be 4 digits.

Each of the Stations in the new group will have to be modified as well. Change the names of each Substation and modify the Sub Station numbers to 26 through 41.

These steps need to be repeated for each new group created.



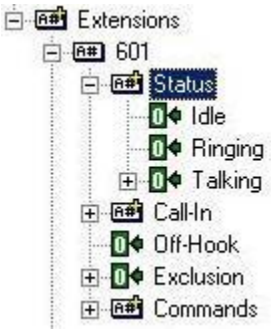
Extensions

Extensions include the Substation nodes. Each Substation node contains: Status node, Call-In node, two child I/O points (Off-Hook / Exclusion) and the Commands node

- Status – This node contains a list of the possible statuses that an extension may retain. See the chart below this section for a list of all possible statuses.

Note: These statuses must be entered as 2-digit sets when input into the properties dialog of the I/O points under the "Status" node.

- Call-In – This node contains a sub-point that is set high whenever the station is calling-in to the master station.
- Exclusion – This point is set high when the users wants to include or exclude this specific extension from activities/commands sent to a group of Extensions.
- Commands – These are the commands that can be sent for the current extension. The "SendCommand" under RTU in the Action List is the action that should be used for all command targets.



Possible Extension Statuses

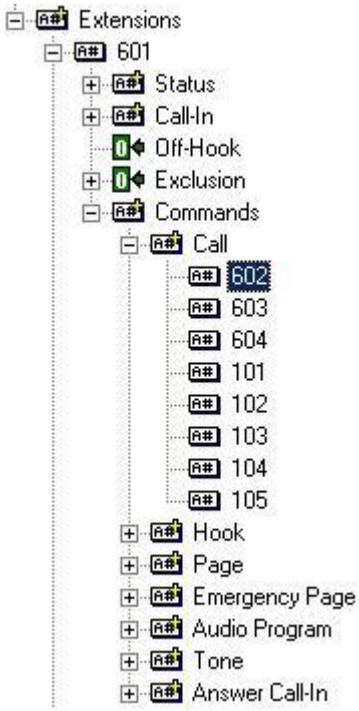
State	Value	Explanation
00	IDLE	Ext. not in use.
01	RINGING	Ext. is ringing.
02	TALKING	Ext. is talking to another extension.
03	DIAL_TONE	Dial tone is being applied to ext.
04	BUSY_TONE	Busy tone is being applied to ext.
05	REORDER_TONE	Fast busy tone is being applied to ext.
06	FLASH	Ext. has pressed flash
07	DIGIT_1_DIALED	Ext. dialed first digit.
08	DIGIT_2_DIALED	Ext. dialed second digit.
09	DIGIT_3_DIALED	Ext. dialed third digit.
10	DIGIT_4_DIALED	Ext. dialed fourth digit.
11	LAST_DIGIT_DIALED	Ext. dialed last digit.
12	ESCAPE_7	7 is first key pressed.
13	ESCAPE_POUND	# is first key pressed.
14	PORT_ACTIVE	Ext. is making intercom call.
15	PORT_SUSPENDED	Ext. has audio program suspended due to page.
16	PORT_MONITOR	Ext. is monitoring audio source.
17	OFF_HOOK_ANSWER	Ext. has answered an intercom call.
18	CONFERENCE	Ext. is part of conference call.
19	PASSWORD_BEEP	Ext. is being asked for password.
20	TRUNK_OUTGOING	Ext. has accessed a CO trunk.
21	TRUNK_RINGING	Trunk accessed by extension is ringing.
22	TRUNK_INCOMING	Attendant answered incoming call.
23	TRUNK_FLASH	Flash performed on trunk accessed by Ext.
24	ATTENDANT_RINGING	Attendant is ringing.

25	TRUNK_DIAL_TONE	Dial tone applied to trunk accessed by Ext.
26	TRUNK_DIAL_REQUEST	Dial requested on trunk accessed by Ext.
27	TRUNK_DIAL_COMPLETE	Dial complete on trunk accessed by Ext.
28	PARTY_ON_HOLD	Ext. has someone on hold.
29	ESCAPE_8	8 is first key pressed.
30	ATTENDANT_RECALL	Attendant is being reminded someone on hold.
31	HOLD	Ext. is on hold.
32	NIGHT_MODE_RINGING	Ext. ringing in night mode.
33	TRUNK_TOLL_RESTRICT	Ext. is making a toll call.
34	TRUNK_ACCOUNT_CODE	Ext. is asked for account code.
35	DIAL_ACCESS_BEEP	Ext. is asked for password.
36	DIAL_ACCESS_PASSWORD	Ext. is entering password.
47	CONSOLE_IDLE	
48	CONSOLE_BUSY	
49	ESCAPE_9	
50	ESCAPE_91	
51	NET_LAST_DIGIT	
52	NET_RINGING	
53	NET_TALKING	
54	TIMED_OUT	
55	NET_FLASH	
56	CALL_BACK_RINGING	
57	SPD_ACCOUNT_CODE	
58	TRUNK_WAIT_DIAL_TONE	
59	TRUNK_SEIZED	
60	CALL_BACK_BEEP	
61	FWRD_TO_DIAL_TONE	

Status - Talking

When using the "Talking" function, you must have subpoints underneath the "Talking" node in order for the Dukane RTU to know which extension you are talking to and referencing. In order for the user to be notified who the current extension is talking to, these sub-points must be addressed correctly, pointing back toward the target substations/extensions.

Also, this does not need to be redundant. For example, if you have the Talking sub point "102" programmed correctly underneath the "101" extension, then you do not need to also add "101" under the "102" extension node. The first Talking relationship that you set up in the Extension 101 node will cover functionality for both directions of communication. Keep this in mind when programming your project since the less you have in your Project tree, the faster your hardware and software will respond.



Using Commands

The Command node contains multiple types of commands that can be sent using the Actions grid. For each command you must use the "Send Command" Action under RTU in the Actions List, while your target will be one of the sub-nodes seen at left (e.g. 602, 603, etc…)

For "Call" and Answer 'Call-In," see the above section titled "Status – Talking" for rules on setting up sub points. The same logic applies to Talking status, as it does to the "Call" and "Answer Call-In" Commands in terms of sub point programming.

Command Definitions

- Call – used for bidirectional communication between stations
- Hook – used for sending a phone on or off its hook
- Page – used to send a temporary on-way call
- Emergency Page – used to send a breakthrough page
- Audio Program – used to send an audio source/stream to stations
- Tone – used to send audio tone(s) to stations
- Answer Call-In – used to acknowledge and interact with call-in from substations