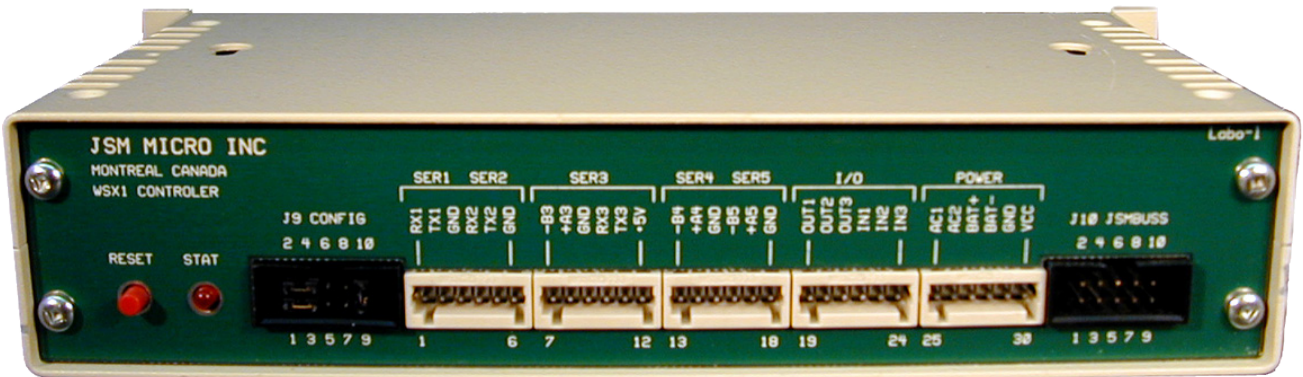# ASM Messenger
Programming Manual
rev 0

Will detect calls from Austco systems and generate alarms, build and dispatch alarm messages to displays, pagers, wireless phones. Will also store call statistics for Jsm Report reporting software.

Use in conjunction with Jsm Config and the ASM Messenger 2.0 template

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Contents

1   Overview

To program the WSX1 CPU running the ASM Messenger software you must use JSM Micro inc Jsm Config configuration program. Jsm Config is a universal template based programming tool developed to assist in all JSM Micro inc products programming.

Once opened, the main screen looks like this:

JsmConfig Software Overview (example shown using the SCP Messenger 3.0 template)

Very important : please note that spaces are used internally by our configuration files. Therefore, all spaces are replaced by underscore characters (unless a few exceptions), but they will appear as spaces when used by Jsm products. In JsmConfig, if you type a space on your keyboard, it automatically gets replaced by an underscore character.

2   User comments, passwords and pin codes

User comments are for your own usage. You can edit the date and have three lines of comments to store information like your customer's name, your name or other information. These information's will be saved to the WSX1.

The Passwords section allow you to enter up to three passwords for future use. Presently the ASM Messenger 2.0 software do not look at these passwords.

The Pin codes section allows you to enter a serial number to use your ASM Messenger 2.0 software. The serial number must match the serial number programmed in the WSX1 unit, otherwise ASM Messenger will not work. The various pin codes allows you to enable some features of the software. Depending on your configuration, Jsm Micro inc. will tell you your serial number and which pin codes to enter here. For now, they are reserved for future use.

3   General configuration

In this section you set several parameters like daylight saving time, if you have displays, if you have pagers and their protocols. Please note that the Polycomm © Kirk protocol is always available on ser3 port. This allow you to send alarm messages to Kirk and SpectraLink wireless handsets.

3.1   WSX1 ports assignment

ser1: Programming/Reporting software (RS-232)
ser2: Paging output (RS-232 full duplex)
ser3: Austco RS-232 port or RS-485 CSX5 networking
ser4: Displays output (RS-485)
ser5: Kirk, SpectraLink to WSX1 (RS-485), Jsm Display

3.2   General and paging settings

mn   Enter a name for your WSX1 module. It will be used by the reporting software.

ma   Enter the address for this WSX1 module. Useful in WSX1-networked environments.

ln   Select the system language, french or english. It is mainly used to display long date format.

ds   Sets the daylight time saving hour correction function parameters. Values: 0= disable, 1=Canada.

xn   Set this parameter to *yes* to add the node number at the end of messages.

cc   Select how many CSX5 units are connected to the Jsm Bus. Choices are between 0 and 16.

br   Configure the serial port settings for the ASM port (ser3). The format is : baud_parity_data_stop (baud rate must be 4 digits long, ex : 300 must be written as 0300). Examples : 0300_N_8_1, 1200_E_7_2.

pc   Enter the suffix message appended to cancelled calls. Enter nothing for no paging of cancelled calls. Ex: if *PC* is set to *END*, the *CODE 209* message would become *CODE 209 END*.

3.2.1   Paging protocol general settings

pp   Paging protocol to be used. Choices are:

   csx5_enc: JSM Micro inc CSX5-ENC system
   nil: No paging (maybe displays or Kirk)
   mep: Multitone Electronics protocol

`tap:`	Telelocator Alphanumeric protocol
`mtap:`	Modem TAP
`comp2:`	People Finder entry protocol

The default is csx5-enc. This is the JSM Micro inc Pocsag encoder module input protocol. The CSX5-ENC encoder is made by JSM Micro inc. As a second choice, the tap or mtap is the most popular protocol. If you chose tap or mtap, you must define the supplier information by filling in the tap/mtap protocol settings section. A supplier is a wide area paging service provider like AT&T, Telus, Bell Mobility etc. The ser2 port is used for tap or mtap.

pb Paging port settings (not for tap or mtap). Enter baud rate, parity, data bits, stop bits & port used. As example, if you choose mep as paging protocol you can enter "1200_E_7_2_com2". If you choose csx5-enc you must enter "9600_N_8_1_com2" Always choose com2 unless instructed to select a different serial port. Note: For tap or mtap, this parameter is not used.

rp Specifies the page repetition interval in minutes. This setting allows the software to automatically repeat the page after a certain time interval. Please note that the paging interval is independant of escalerts. The possible choices are :

00	Page once then wait for escalert time
02	Page every 2 minutes until escalert
05	Page every 5 minutes until escalert
10	Page every 10 minutes until escalert
15	Page every 15 minutes until escalert

3.2.2 TAP/MTAP specific settings

These settings only apply if the paging protocol you selected is TAP or MTAP. If you do not use TAP or MTAP, you do not have to fill in these settings.

md Enter the number to dial for modem tap paging (leave empty if there is no modem).

ms Enter the maximum number of pages accepted by the tap supplier per modem call.

mc Enter the mtap modem connect string.

mi Enter the modem initialisation string (leave empty if you are not using MTAP).

3.3 Addressable displays parameters
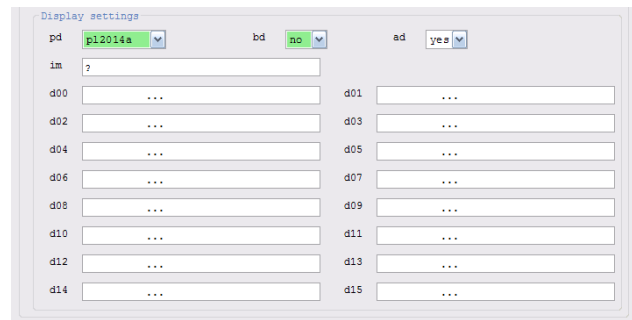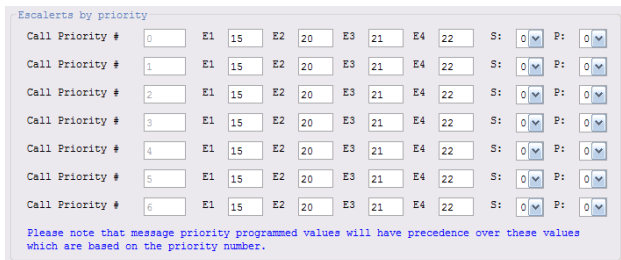
pd Specify if you have displays (wall boards) and wich protocol to use to communicate with them. Choices are:

`nil:`	No displays (only pagers/handsets)
`pl2014a:`	JSM Micro supplied displays
`prolite:`	Prolite displays

bd Specify if the displays will beep or not. Some of them have beeping functions to alert people.

ad Specify if the displays are addressable or not. All displays are connected on the same RS485 buss (ser4). If they are addressable you can assign alarms to specific displays. Choices are:

`jsm:` Use JSM supplied addressing module.

`yes:` Use display built-in addressing method (PL2014).

`no:` They are not addressable. Use "d00"

im Installer's message: Enter your company name. It will be displayed on all displays for 30 seconds when WSX1 unit is powered-up. If you do not want an installer message to be displayed, enter x (in lower case).

d00 This description applies for displays 00 to 15! Enter the message you want to be displayed when there is no alarm. One message for each displays. It is suggested to use " ...". This will show three scrolling dots, indicating a powered display with no calls. You can also include dates and times in your message by starting it with `&T` to display the time in 12 hrs format, `&t` to display the time in 24 hrs format, `&D` to display the weekday followed by the date and `&d` to display the date only. Alternatively you can use messages like these:

- "East Wing, no calls"
- "Second floor"
- "Welcome to St-John's Hospital"

4   Escalerts

For each call, the software will first look at the call type to determine if it matches one of the call types defined in the *Escalerts by call type* section (4.2). If no match is found, then it will use the priority number sent on the ASM port as defined in the *Escalerts by priority* section (4.1).

4.1   Escalerts by priority

In this section, you can map each of the priority numbers (0 to 6) of the Austco system with some actions to be performed. For each priority number, you define the time that will elapse between each escalert when a call with that priority number is received. You can also choose the beep sound that will be played in the display panel and the display priority order.

Prio The same description applies for priority codes #0 to #6! Repeat for each Austco specific priority code here.

E1 The same description applies for E1 to E4! Enter the time in minutes that will elapse between each escalert before the escalert is triggered for the specified priority code. If you enter two digits (such as 15), the time will be considered in minutes (meaning 15 minutes for example); if you enter three digits (such as 030), the time will be considered in seconds (meaning 30 seconds for example). Very important: every escalert time is relative to the previous escalert and not from the beginning! Take note that **total** call duration cannot exceed 60 minutes! If it happens, the call will be cancelled and marked as timed out for Jsm Report.

For example, let's suppose E1=045, E2=02, E3=090, E4=01. In this scenario, relatively to the beginning, it would mean that the first escalert would be triggered at 45 seconds, the second one would be triggered at 2 minutes 45 seconds, the third one at 4 minutes 15 seconds and the fourth one at 5 minutes 15 seconds.

S Select the beeping sound that the display will emit when that priority code is received. You can turn off the sound or choose from three predefined sounds.

- No sound (0)
- Type 1 sound (1)
- Type 2 sound (2)
- Type 3 sound (3)

P Select the priority order for that priority code for the displays. The priority affects the frequency at which the call will be displayed on the display panels for this priority code compared to the other priority codes. You have a choice of 5 different priorities. This will be used in future versions.

- Highest (0)
- High (1)
- Medium (2)
- Low (3)
- Lowest (4)

4.2   Escalerts by call type

In this section, you can map up to 64 specific priority messages (sometimes refered to call types) of the Austco system to some actions to be performed. You can enter each desired priority message and define the time

that will elapse between each escalert when that specific priority message is received. You can also choose the beep sound that will be played in the display panel and the display priority order upon reception of the priority message.

Type The same description applies for all priority messages! Enter the Austco specific priority message here. If the field is unused, simply leave it empty.

E1 The same description applies for E1 to E4! Enter the time in minutes that will elapse between each escalert before the escalert is triggered for the specified priority message. If you enter two digits (such as 15), the time will be considered in minutes (meaning 15 minutes for example); if you enter three digits (such as 030), the time will be considered in seconds (meaning 30 seconds for example). Very important: every escalert time is relative to the previous escalert and not from the beginning! Take note that **total** call duration cannot exceed 60 minutes! If it happens, the call will be cancelled and marked as timed out for Jsm Report.

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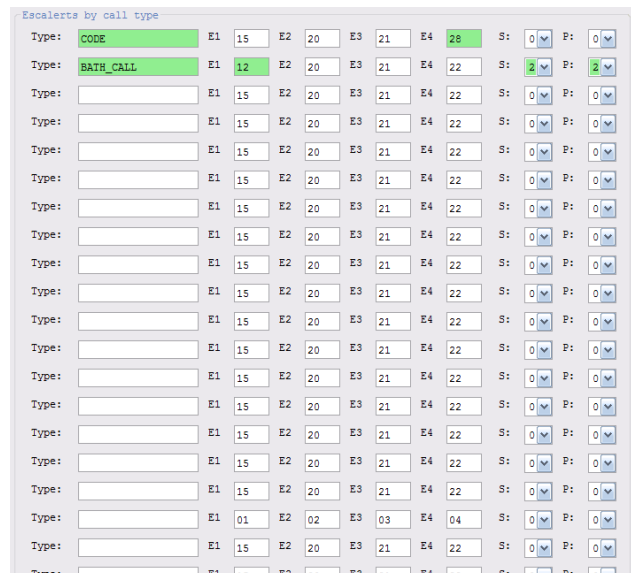
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- No sound (0)
- Type 1 sound (1)
- Type 2 sound (2)
- Type 3 sound (3)

P Select the priority order for that priority message for the displays. The priority affects the frequency at which the call will be displayed on the display panels for this message compared to the other messages. You have a choice of 5 different priorities. This will be used in future versions.

- Highest (0)
- High (1)
- Medium (2)
- Low (3)
- Lowest (4)

5   Teams

In this section, you can define teams to be called when some alert occur. You can define a maximum of 100 teams (0 to 99) and each team can contain a mix of up to 20 pagers, Kirk users, Kirk extensions, SpectraLink users, SpectraLink extensions and displays. For each used team, use an appropriate description describing the team (for example TROUBLES_TEAM) and enter the members of the team.

Each team member can be a pager number, a kirk user number or extension number, a SpectraLink user or extension number or a display. Examples :

1. 1111001 (capcode)
2. KU000 (Kirk user 000)
3. K2401 (Kirk extension 2401)
4. S-001-U000 (SpectraLink user 000, page and use ring 1)
5. S-014-4120 (SpectraLink user 4120, page, callback and use ring 4)
6. D01 (Display 01)

Note concerning SpectraLink : the syntax for SpectraLink users is S-par-U000 and the syntax for SpectraLink extensions is S-par-4120. The par parameters represent :

p Represents the paging priority. Not used yet. Normally left to 0.

a Represents the alert mode. For the moment, 0 means no callback (pager-like alert) and 1 means alert with callback.

r Represents the ringing type. We have 10 different rings : 0 to 9. 0 is not recommended (no ring).

See the WSX1-SpectraLink software for more information.

In sections 7, 8 and 9, you will associate nodes or call points for all schedules with teams. A team can be used as a regular alert team or as an escalert team.

6   Teams allocations schedule

Sample (fictional) schedules : week day shift, week day noon replacement shift, week night shift and weekend shift :

Week days are :
```
0:   Sunday
1:   Monday
2:   Tuesday
3:   Wednesday
4:   Thursday
5:   Friday
6:   Saturday
```

In this schedule, we have programmed four work shifts:

0: this schedule starts each week day (from monday to friday) at 08:00 and at 13:00, therefore representing a day shift for week days. That means that when those times are reached, the contacts programmation defined for schedule 0 will be used.

1: this schedule starts each week day (from monday to friday) at 23:00, therefore representing a night shift for week days. That means that when that time is reached, the contacts programmation defined for schedule 1 will be used.

2: this schedule starts each week-end day (saturday and sunday only) at 08:00, therefore representing a week-end shift. That means that when that time is reached, the contacts programmation defined for schedule 2 will be used.

3: this schedule starts each week day (from monday to friday) at 11:00, therefore representing a noon

replacement shift for week days. That means that when that time is reached, the contacts programmation defined for schedule 3 will be used.

To describe a schedule, simply enter the schedule number (select a number from 0-9), the schedule start time, the days this schedule will apply and enter a quick description for your convenience. Please note that a schedule may be defined by multiple time periods. At the bottom of the screen, you may enter descriptions for each schedule which will be displayed on the contacts programmation configuration page.

7   Default scheduling

This section is used to set the default scheduling grid for nodes and call points. In a system you may have up to 15 nodes and 256 call points per node! Instead of programming the scheduling grid for each of them you can specify a default grid in this section. The default grid will be automatically used for all nodes and call points for which you do not specify a custom scheduling grid.

In other sections, each time a question mark will appear in a parameter field, it will be substituted by what you have programmed in this section. Let's see how to do it.

Here is a screenshot of that section:

The grid defines which teams should be called by default for all nodes and call points when a call is made, for each schedule defined in section 6. That means that it allows you to define a scheduling *pattern* that will automatically repeat itself for each node or call point whose values have not been overriden. In the nodes and call points (sections 8 and 9), you will see for each item an exact copy of the same grid initially set to default values. By default, for each item, if you do not change anything in the grid, it will simply use the settings you define in the *defaults* grid.

However, you may customize some values to alert different contacts for some nodes or call points, but you are not obligated to modify all values. Jsm Config will color the values you customize for each field in green and the values that are left to defaults will be white. That means that values that appear with a white background will use the values defined in the *pattern* grid in the *defaults* section, but values that are green won't use the default ones and they will be specific to that node or call point only. Don't forget that you may always middle-click (or clicking and holding Ctrl) to bring back the default value for any field (it should turn from green to white).

You can define a regular team (simply select it's number as defined in section (5) to alert when a call is made. You may also define four team numbers for each successive escalert that will be called if the call is not responded (`E1` to `E4`). Simply select `---` if you do not want anyone to be alerted by default for some schedules. Please note that when you open the dropdown lists with the mouse, the names of the teams you defined in the teams section (5) will appear next to the team numbers to ease the selection process so you do not have to switch back and forth among sections.

As an example, refer to the grid in the next two sections (8) (9) which details which fields have been customized for that particular node or call point only (green background) and which fields will simply use values defined in the *defaults* section (white background).

Grid scheduling defined in the *Call points* (9) section have priority over grid scheduling in the *Nodes* (8) section which in turn have priority over the grid scheduling defined in the *Defaults* (7) section!

8   Nodes

Enter here the settings for each Austco node.

`Node number:` Select the node number for which you wish to modify the parameters. Choices are from 00 to 14.

`Associated name:` Enter the department name corresponding to this node. The department name will appear in the generated Jsm Report call statistics.

`Callback formula:` Enter the formula needed to call back the room from certain wireless phones like SpectraLink or Kirk. The allowed characters are `0123456789*#,P:`

`,`: short pause
`P`: long pause

Examples : `5412P#; 5412,,#`

8.1   Messages

It is possible to map up to four specific priority codes or call types (messages) from the `Escalerts by call types` (section 4.2) to specific teams to alert. Those four messages are customizable for each node.

`Priority:` Select the priority you want to map to a specific team for the current node.

`Team:` Select the team associated to the selected message for the current node. Note: when this message is made, the mapped team will be alerted as well as the node scheduled team or call point scheduled team.

8.2   Team scheduling

This part details which teams should be called when this node is triggered, for each schedule defined in section 6. You can define a regular team (simply select it's number as defined in section 5) to alert when the call is made. You may also define four team numbers for each successive escalert that will be called if the call is not responded (`E1` to `E4`). Simply select `---` if you do not want anyone to be alerted for some schedules. Like mentionned previously, for teams you do not define manually, the team defined for that particular alert or escalert for the selected schedule from the *defaults* section will be used. Values that you customize will become green, otherwise they will have a white background and will be preceeded with a question mark.

Also remember that when you open the dropdown lists with the mouse, the names of the teams you defined in the teams section (5) will appear next to the team numbers to ease the selection process so you do not have to switch back and forth among sections.

Grid scheduling defined in the *Call points* (9) section have priority over grid scheduling in the *Nodes* (8) section which in turn have priority over the grid scheduling defined in the *Defaults* (7) section!

9   Call points

Enter here the settings for each call point.

`Call point:` Select the call point index for which you wish to modify the parameters. For each call point index, you will have a combination of Austco node index and Austco call point index. Choices are from 0 to 1023.

`Node,call point:` Enter the Enter the node number (00-14) followed by the call point you wish the settings below to apply to. The call point number is between 000-256, or 257-999 if using virtual call points. The

node number and the call point are separated by a comma ','.

`Callback formula:` Enter the formula needed to call back the room from certain wireless phones like SpectraLink or Kirk. The allowed characters are `0123456789*#,P`:

`,:` short pause
`P:` long pause

Examples : `5412P#`; `5412,,#`

9.1 Team scheduling

This part details which teams should be called when a call is made, for each schedule defined in section 6. You can define a regular team (simply select it's number as defined in section 5) to alert when the call is made. You may also define four team numbers for each successive escalert that will be called if the call is not responded (`E1` to `E4`). Simply select `---` if you do not want anyone to be alerted for some schedules. Like mentionned previously, for teams you do not define manually, the team defined for that particular alert or escalert for the selected schedule from the *defaults* section will be used. Values that you customize will become green, otherwise they will have a white background and will be preceeded with a question mark.

Also remember that when you open the dropdown lists with the mouse, the names of the teams you defined in the teams section (5) will appear next to the team numbers to ease the selection process so you do not have to switch back and forth among sections.

Grid scheduling defined in the *Call points* (9) section have priority over grid scheduling in the *Nodes* (8) section which in turn have priority over the grid scheduling

defined in the *Defaults* (7) section!

10 Automatic scheduled notifications

You can program automatic messages to transmit at certain times of the day for some teams. These messages are useful if you want to set up periodic reminders. For example, you could program notifications to remind the staff 15 minutes before their shift ends to hand-off their pagers.

`Team:` Enter the team number you want your scheduled notification addressed to. When the specified time period is reached, all members of the team you select from the teams list will receive the specified message. To disable the notification, select `--- (No notification)` from the list.

`Hrs:min:` Enter the time in format hour (00-23) :minutes (00-59) at which the members of the selected team will receive the specified message.

`Msg:` Enter the message to be transmitted at the specified time for the specified team. The message cannot exceed 30 characters so be concise!