Virtual BACview v9.0

User Guide

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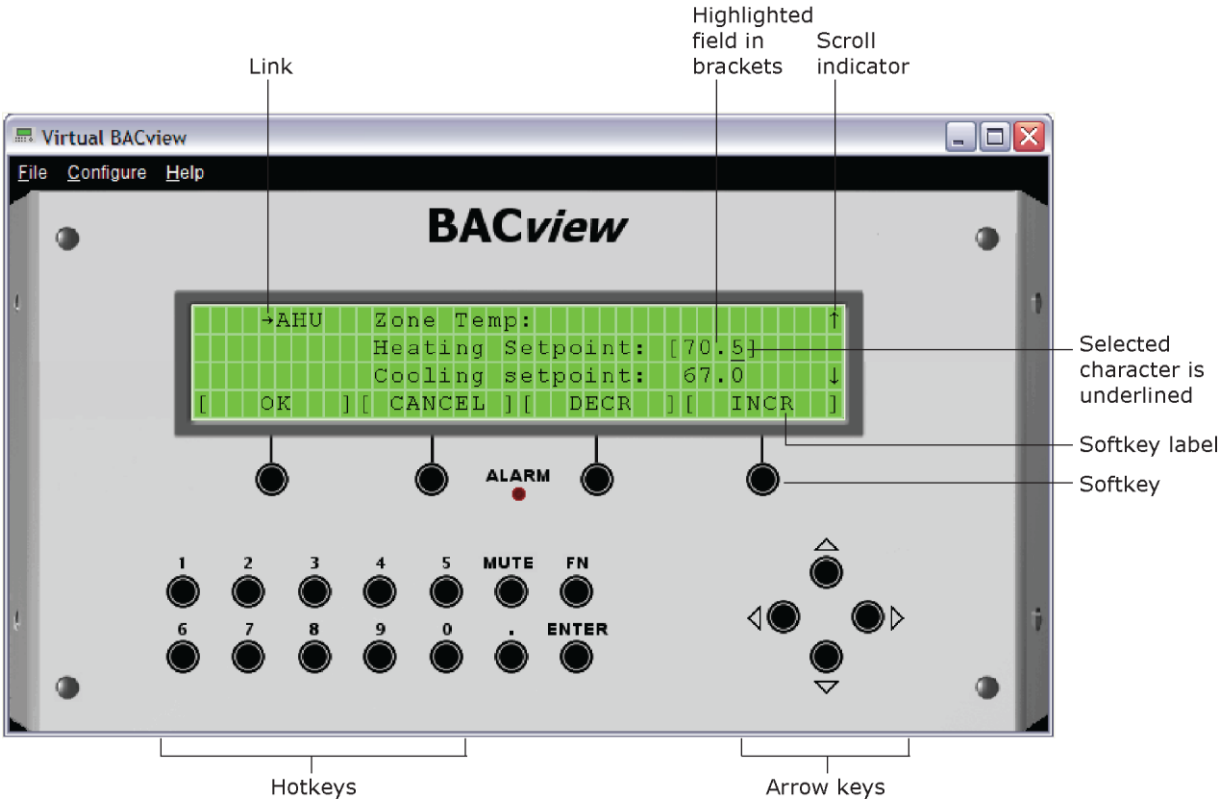
Important changes are listed in **Document revision history** at the end of this document.

Contents

What is the Virtual BACview® application?

The Virtual BACview® application simulates a BACview®[6] device. You run Virtual BACview® application on a laptop that is connected to a controller's Local Access port.



To install the Virtual BACview® application

1. Insert your Tech Tools USB drive into your laptop.
2. Run the setup.exe file for the Virtual BAC*view*® application.

To connect your laptop to the controller

CAUTIONS

- Maintain polarity when controllers share power.
- Failure to maintain polarity while using the USB Link on a computer that is grounded through its AC adapter may damage the USB Link and the controller.

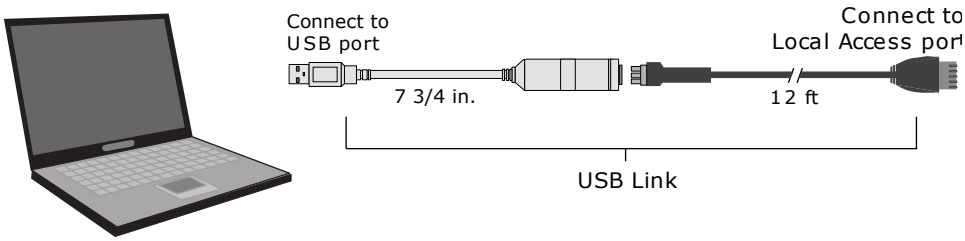
PREREQUISITES

- For the i-Vu® application to communicate with the controller, the controller must have been downloaded with at least its driver (4.x or later).
- Laptop with USB port
- USB Link (Part #USB-L)

Using a USB Link

1 The USB Link driver is installed with an i-Vu® v6 or later system. Please refer to the Silicon Labs website and search for "CP210x USB to UART Bridge VCP Drivers" for the most current device drivers. Install the driver before you connect the USB Link to your computer.

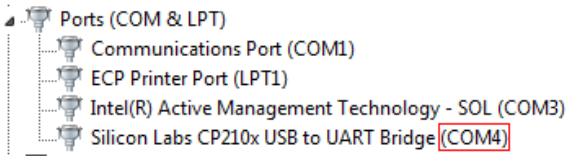
2 Connect the laptop to the controller or sensor using the appropriate USB Link cable(s).



3 Start the Virtual BAC*view*® application.

4 In the **Row Count** field, enter the number of screen rows you want displayed (100 maximum).

5 In the **Comm Port** field, select the laptop's comm port that the USB Link is connected to. To find the port number, select **Start** > **Control Panel** > **System** > **Hardware** > **Device Manager** > **Ports (Com & LPT)**. The COM port number is beside **CP210x USB to UART Bridge**.



6 Click **OK**.

Using the Virtual BACview® application

To perform actions, you can click the keys on the Virtual BAC*view*® or you can use their keyboard equivalents. Hover your cursor over a key to see its keyboard equivalent.

NOTE For information on the BAC*view*® screens for a specific controller, see the controller's *Installation and Startup Guide*. For information on system screens that are common to most controllers, see *BACview® system screens* (page 6).

To activate the application

The Virtual BAC*view*® application displays the standby screen after inactivity. Click any key except **MUTE** or **FN**, to activate the screen.

NOTE You can change the length of inactivity on the **KEYPAD** screen.

To log in

A BAC*view*® screen is programmed with one of the following password levels.

A screen with this password level...	Can be accessed by...	For...
None	Anyone	Viewing only
User	An operator logged in with the User or Admin password	Viewing or editing
Admin	An operator logged in with the Admin password.	Viewing or editing

When you are prompted to log in:

1 Click the numeric keys to enter the 4-digit password.

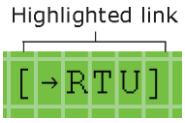
2 Click the **OK** softkey.

To navigate

To move within a screen, click the arrow keys.

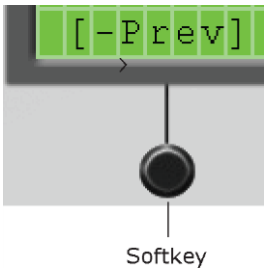
To jump to another screen, do one of the following:

- Click the arrow keys to highlight a link, then click **Enter**.



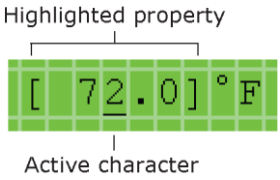
- Click a softkey.

  NOTE A **[Prev]** link jumps to the previous screen.



To change a property

1 Use the arrow keys to highlight the property value you want to edit.



2 Click **ENTER**.

  NOTE If you have not previously logged in, you will be prompted for your password. See *To log in* (page 3).

3 Click the left or right arrow key to move the cursor under the character you want to change.

4 Do one of the following:

  - Click a number key.
  - Click the **DECR** or **INCR** softkey to cycle through binary or multi-state options or to decrease or increase a number.
  - Click the **CANCEL** softkey to restore the original value.

5 Optional: To edit another property in this same screen, repeat steps 1 through 4.

6 Click the **OK** softkey to save all changes to the screen.

To obtain a Modstat report

To obtain a Modstat report that shows the status of the connected controller, hold down **Ctrl** and click **.** (the period key). Use the arrow keys to scroll through the report.

To handle alarms

If the alarm features are set up, the Virtual BAC*view*® application does the following when it receives an alarm from the controller:

- Turn on the Alarm LED
- Turn on the audible alarm
- List the alarm in the **Active Alarms** list on the **Alarms** screen

When the Virtual BAC*view*® application receives the alarm's return-to-normal, it moves the alarm from the **Active Alarms** list to the **Returned-To-Normal** list. The audible alarm and LED turn off after all active alarms have returned to normal.

To manually turn off alarms before the Virtual BAC*view*® application receives the return-to-normal, you can:

- Click **MUTE** to silence the alarm.
- Hold down **Ctrl** and click **MUTE** to silence the alarm, turn off the LED, and move all alarms in the **Active Alarms** list to the **Manually Cleared** list.

To change the number of screen rows

1. Select **File** > **Restart**.
2. Type the number of rows in the **Row Count** field.

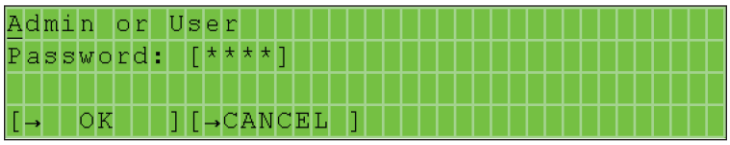
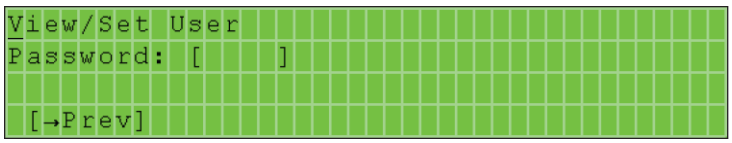
BACview® system screens

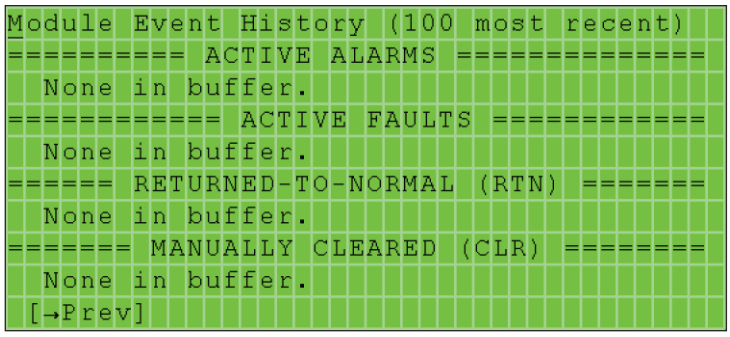
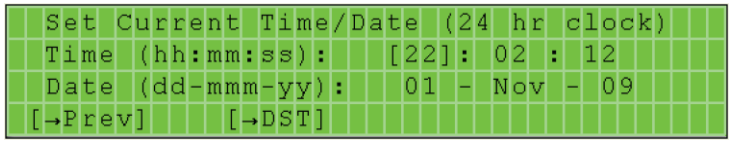
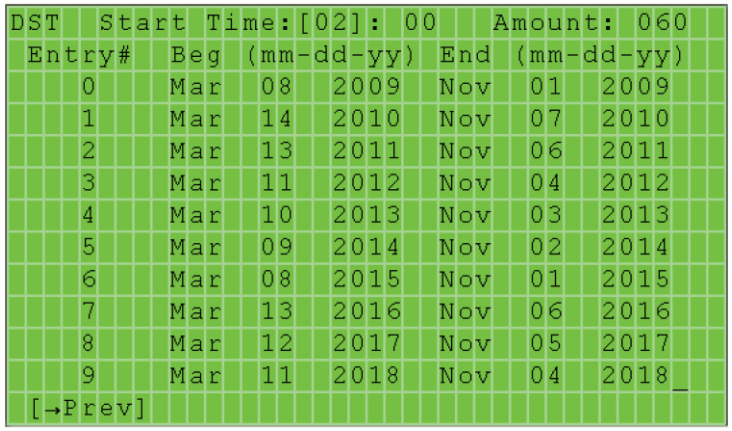
When you are viewing a controller's BAC*view*® screens, most of the screens are specific to the controller. However, you may also see the system screens described below that are common to most controllers.

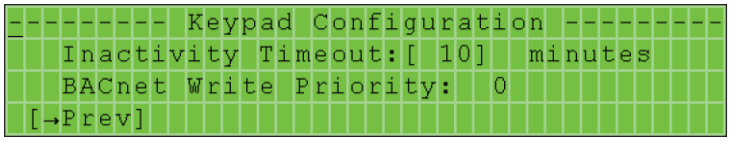
For information on the controller-specific screens, see the *Points/Properties* appendix in the controller's *Installation and Startup Guide*.

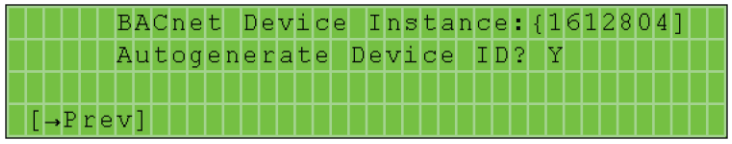
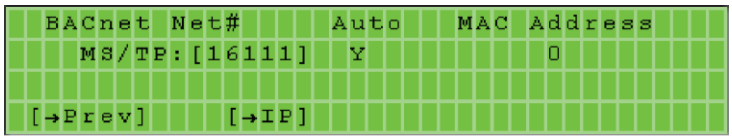
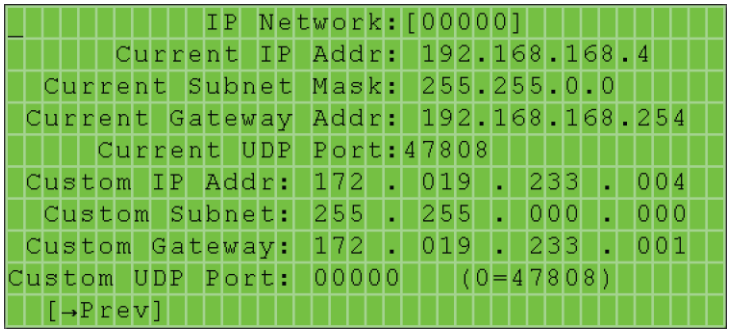
NOTES

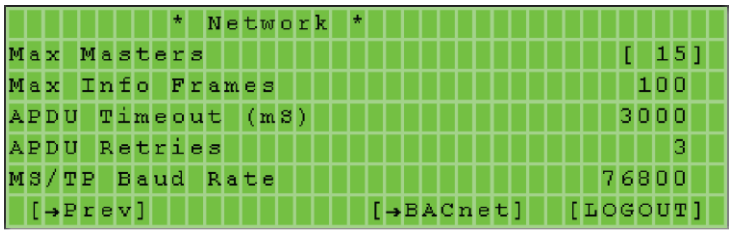
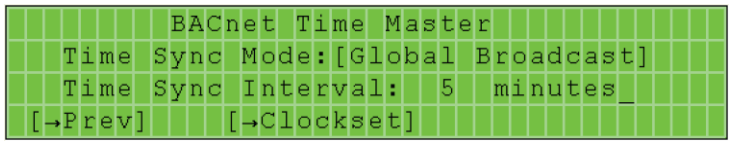
- If a screen has more rows than can be displayed, use the arrow keys to scroll through the screen.
- Pound signs (#####) indicate that a value has too many digits to display in the existing field.

Screen	Description
Standby	For: All controllers Displays when the BAC*view*® device has had no operator activity for the length of time specified on the **Keypad** screen described below.
Home	For: All controllers Displays if you press a key while the standby screen is showing.
Login	For: All controllers Navigate to: **Login** Displays if you select the **Login** link, or if you select a screen that requires a password. See *To log in* (page 3). 
User password	For: All controllers Navigate to: **System Settings** > **UserPw** Lets the Administrator set up a 4-digit user-level password that restricts access to certain screens. 

Screen	Description
Alarm	For: RTU Open, WSHP, VVT Zone, and VVT Bypass controllers Navigate to: **Alarm** > **Alarm** Displays the 100 most recent alarms received by the controller. 
Clock set	For: RTU Open, and WSHP Navigate to: **System Settings** > **Clockset** For: i-Vu® Open Router Navigate to: **Clockset** Lets the Administrator make changes to the controller's real time clock. However, if a router is on the network, the time set in the router takes precedence over the time set on this screen. 
DST	For: RTU Open and WSHP Navigate to: **System Settings** > **Clockset** > **DST** For: i-Vu® Open Router Navigate to: **Clockset** > **DST** Lets an operator adjust the beginning and ending dates for daylight saving time. 

Screen	Description
Keypad	For: All controllers Navigate to: **System Settings** > **Keypad** Lets you define: • The amount of time (255 min. maximum) of inactivity after which the *standby* screen displays and, if applicable, the backlight on a BAC*view*®[6] device turns off. **NOTE** This time can also be defined in the module driver. • The priority level (0-16), that the BAC*view*® device uses to write BACnet commandable properties to a controller. **BACnet Priorities:** 0 = Relinquish Default (Writes this as the default value for the controller) 1 = Munual Life Safety (Highest priority) 2 = Automatic Life Safety 3 = Available 4 = Available 5 = Critical Equipment Control 6 = Minimum ON/OFF 8 = Manual Operator 9 = Available 10 = Available 11 = Available 12 = Available 13 = Available 14 = Available 15 = Available 16 = Available (Lowest priority) **NOTE** The value that is written from the BAC*view*® device is always written to the controller. If a priority of 1-16 is specified, other BACnet devices must write at a priority equal to or greater than the priority specified by the BAC*view*® device. **EXAMPLE** The Heating Setpoint is written to the controller by a BAC*view*® device at Priority 9. Another BACnet device writes the Heating Setpoint to the controller at Priority 16. This value will NOT overwrite the BAC*view*® value since it was written at a lower priority (16) than the BAC*view*® priority (9). 

Screen	Description
BACnet	For: All controllers except i-Vu® Open Router Navigate to: **System Settings** > **BACnet** For: i-Vu® Open Router Navigate to: **BACnet** Lets you view or edit the controller's **BACnet Device Instance** number. This is a unique number that is typically autogenerated. However, if you need to use a custom number, set **Autogenerate Device ID** to **N**, then enter your custom **BACnet Device Instance** number. 
Router	For i-Vu® Open Router Navigate to: **Router** Lets you view or edit the MS/TP network number and the router's address.  The [–>IP] link jumps to the following screen.
IP	For: i-Vu® Open Router Navigate to: **IP** Lets you view or edit network addresses. 

Screen	Description
Network	For: i-Vu® Open Router Navigate to: **Network** Lets you view or edit the following MS/TP network properties.  Set **Max Masters** to the highest MAC address (up to 127) on the MS/TP network. **NOTE** If you later add a device with a higher address, you must change this field to that new address. **Max Info Frames** defines the maximum number of messages that will be sent when the controller receives the token. The default of 10 should be ideal for most applications. But, if the controller needs to communicate many values to other devices, you may need to increase this number as high as 200. **APDU Timeout** is how long the controller will wait before resending a message if no response is received. **APDU Retries** is the number of times the controller will resend a message.
BACnet Time Master	For: RTU Open and WSHP Navigate to: **System Settings** > **TimeMstr** For: i-Vu® Open Router Navigate to: **TimeMstr** The network should have only one BACnet Time Master that issues time broadcasts. Set **Time Sync Mode** to: • **No Broadcast** if this controller is not the BACnet Time Master. • **Local Broadcast** to have the controller send time broadcasts only to controllers on his locally connected MS/TP network. • **Global Broadcast** to have the controller send time broadcasts to all controllers and all MS/TP networks in the system. Set **Time Sync Interval** to how often the time broadcast should be sent (1-9999 minutes). 
Local Schedule	For: RTU Open, WSHP, VVT Zone, and VVT Bypass controllers Navigate to: **Config** > **Sched** See *Setting local schedules* (page 11).

Setting local schedules

Using a BAC*view*® device, you can set local occupancy schedules directly in a controller. These schedules can be used in a stand-alone controller or used to start up of a network controller.

To set up schedules in a BAC*view*® device, first define a schedule for each day of the week and then define schedules for the exceptions, such as holidays.

NOTES

- To set schedules in a BAC*view*® device, you must enable the **Occupancy Schedules** property on the **Unit Configuration** screen. From the **Home** screen, go to **CONFIG** > **UNIT**.
- A network schedule downloaded from the i-Vu® application will overwrite a local schedule that was set up in a BAC*view*® device.

To set up a weekly schedule

You can set up a schedule and apply it to different days of the week. For example, you could set up one schedule for Monday through Thursday, a second schedule for Friday, and a third schedule for Saturday and Sunday.

To set up a schedule:

1. From the **Home** screen, navigate to **CONFIG** > **Sched** > **schedule_schedule** > **Weekly schedule** > **Mon** (or any day of the week), then click **Enter**. For help, see *To navigate (page 4).*
2. Define the time of each transition during the day from off (unoccupied) to on (occupied) and vice versa:
   a) Highlight **Add/Del**, then click **Enter**.
   b) Click the **INCR** softkey to change the value to **Add**, then click **Enter**.
   c) The 12:00 am state is always the first transition. Change the 12:00 am state if it should be **On**. For help, see *To change a property (page 4).*
   d) Highlight **Add/Del**, then click **Enter**.
   e) Click the **INCR** softkey to change the value to **Add**, then click **Enter**.
   f) Change the time and state of the new transition.
   g) Repeat steps d through f until you have added all transitions for the day.

   NOTES

   - To delete a transition, highlight **Add/Del** in that row, click **Enter**, click the **DECR** softkey to change the value to **Delete**, then click **Enter**.
   - To create a 24-hour off or on schedule, define only the 12:00 am state.
3. Click the **Continue** softkey.
4. If the schedule applies to another day of the week, highlight the field below the day, click **Enter**, click the **INCR** softkey to change the value to **X**, then click **Enter**.
5. Click the **Save** softkey.

To set up exception schedules

You can set up exception schedules that will override the regular schedules. For example, you can set up a schedule for the January 1, 2010 holiday that will override the regular Friday schedule.

To set up an exception schedule:

1 From the Home screen, navigate to **CONFIG** > **Sched** > **schedule_schedule** > **Exceptions**. For help, see *To navigate* (page 4).

NOTE The screen shows any existing exceptions. To delete an exception, highlight **Del**, click **Enter**, click the **INCR** softkey to change the field to **Yes**, then click **Enter**.

2 Click the **Add** softkey.

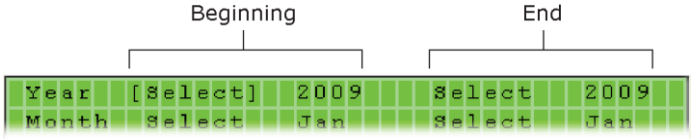
3 Highlight the type of exception you want.

Exception type...	Lets you set up an exception schedule for...
Date	A specific date such as a holiday, or a recurring date such as the first day of every month.
Date Range	A specific date range such as January 1, 2009 through January 5, 2009, or a recurring date range such as the 1st through the 5th of every month.
Week-N-Day	A specific week in a month such as the third week in January, and/or a specific day of the week such as Tuesdays in January.
Calendar Reference	For future use

4 Click **Enter**.

5 Set each field (Year, Month, etc.) as needed. See table below. For help, see *To change a property (page 4).*

NOTE For a Date Range exception, you must define the beginning and end of the range.



6 Click the **Continue** softkey.

7 The default priority is 16. If 2 exception schedules will be used on the same day and have any time periods with conflicting states, assign a higher priority to the schedule that should be followed during the conflicting periods. To do this, change 16 to a lower value.

8 Define the time of each transition during the day from off (unoccupied) to on (occupied) and vice versa:

a) Highlight **Add/Del**, then click **Enter**.

b) Click the **INCR** softkey to change the value to **Add**, then click **Enter**.

c) The 12:00 am state is always the first transition. Change the 12:00 am state if it should be **On**.

d) Highlight **Add/Del**, then click **Enter**.

e) Click the **INCR** softkey to change the value to **Add**, then click **Enter**.

f) Change the time and state of the new transition.

g) Repeat steps d through f until you have added all transitions for the day.

NOTES

- To delete a transition, highlight **Add/Del** in that row, click **Enter**, click the **DECR** softkey to change the value to **Delete**, then click **Enter**.
- To create a 24-hour off (unoccupied) schedule, define only the 12:00 am state.

9 Click the **Save** softkey.

To set the...	To...	Do the following...
Year	**Any** year	1. Highlight **Select**, then click **Enter**. 2. Click the **INCR** softkey to change the field to **Any**, then click **Enter**.
	A specific year	1. Highlight **2009**, then click **Enter**. 2. Change the date, then click **Enter**.
Month	**Even**, **Odd**, or **Any**	1. Highlight **Select**, then click **Enter**. 2. Click the **INCR** softkey to change the field to **Even**, **Odd**, or **Any**, then click **Enter**.
	A specific month	1. Highlight **Jan**, then click **Enter**. 2. Click the **INCR** softkey to change the month, then click **Enter**.
Day	**Last** or **Any**	1. Highlight **Select**, then click **Enter**. 2. Click the **INCR** softkey to change the field to **Last** or **Any**, then click **Enter**.
	A specific date	1. Highlight **1**, then click **Enter**. 2. Change 1 to the number you want, then click **Enter**.
DOW (day of week)	**Any**	Leave the default.
	A specific day of the week	1. Highlight **Any**, then click **Enter**. 2. Click the **INCR** softkey to change the field to **Select**, then click **Enter**. 3. Highlight **Mon**, then click **Enter**. 4. Click the **INCR** softkey to change the day of the week, then click **Enter**.
Week	**Any**	Leave the default.
	Last	1. Highlight **Any**, then click **Enter**. 2. Click the **INCR** softkey to change the field to **Last**.
	A week number (Ex: 2nd week of the month)	1. Highlight **Any**, then press **Enter**. 2. Use **INCR** to change the field to **Select**, then click **Enter**. 3. Highlight **1**, press Enter, Click the **INCR** softkey to change the week number, then click **Enter**.

Document revision history

Important changes to this document are listed below. Minor changes such as typographical or formatting errors are not listed.

Date	Topic	Change description	Code*
		No updates yet	

* For internal use only