Smart Alec®

Installation & Setup Manual

version 1.8

ADAPTIVE

Form no. 9709-2008A
4/27/98

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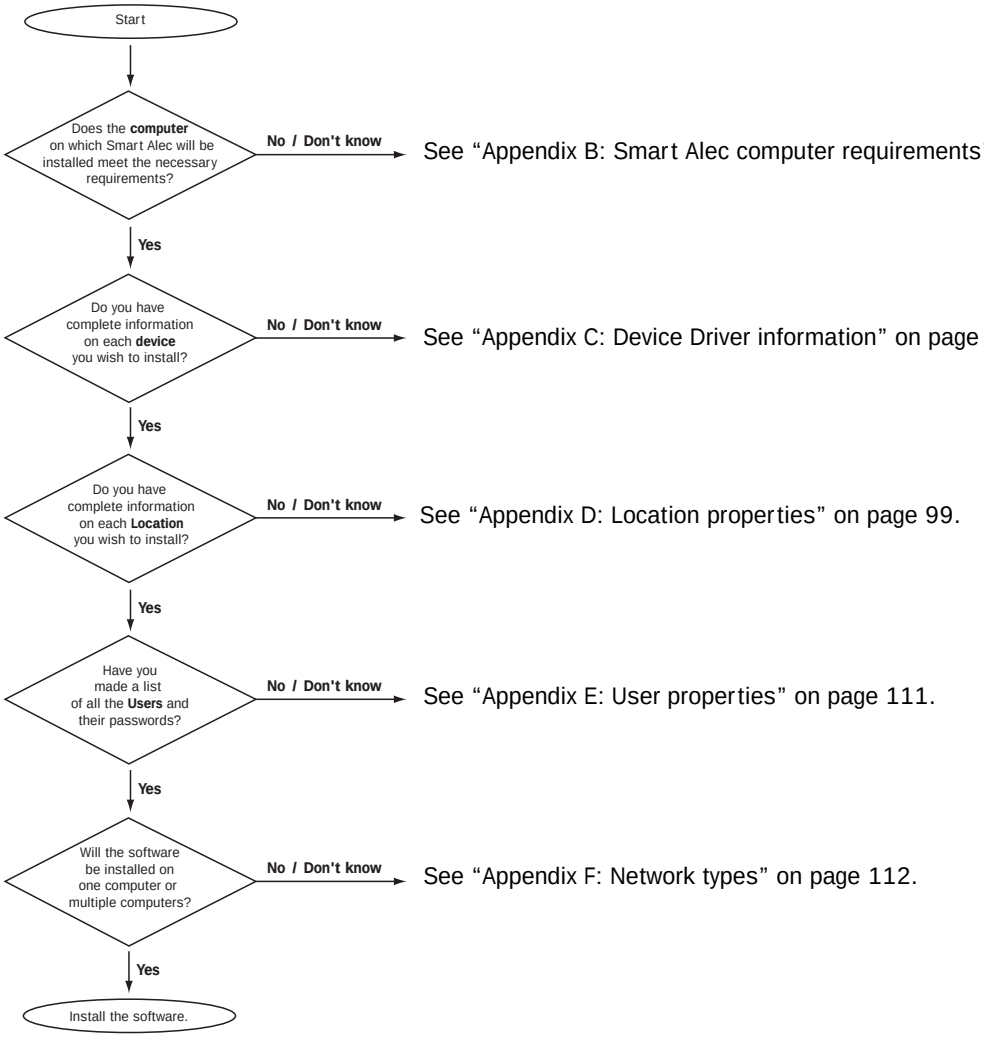
Installing Smart Alec software

For a comprehensive overview of the Smart Alec system, see ÒAppendix A: Smart Alec system overviewÓ on page 91.

Pre-installation

Before installing the Smart Alec software, use this ßowchart:



Administrator (Server) installation

NOTE

The Client software may also be installed with the Server. See "Appendix F: Network types" on page 112 for more information.

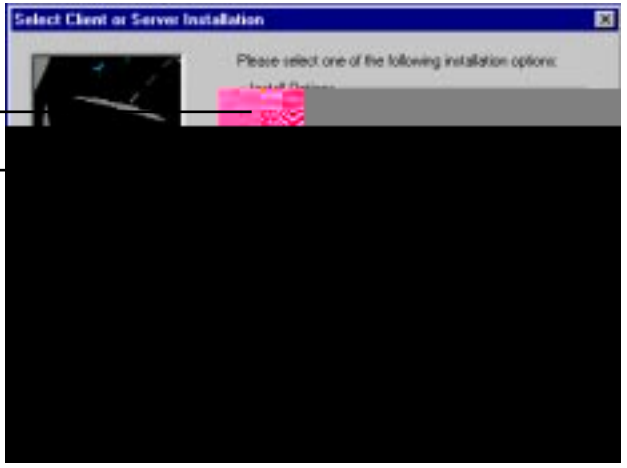
If you are administering a Smart Alec system, follow these steps to install the Server software:

1. Close all applications on your computer.
2. Insert the Smart Alec CD-ROM in your computer. The installation program will autostart, and this screen should appear:

3. If there is a version of Smart Alec already on your computer, the following prompt will appear:
   - ¥ Select *Yes* if you want to remove an older version. **After un-installation is finished, you will have to re-start the install program.**
   - ¥ Select *No* if you need to keep the previous version of software. Normally, there should be no need to keep an older software version.

Selecting *Yes* deletes all setup information — Users, Locations, etc. Make sure all this information is recorded before continuing.

4. The installer will display prompts in which you must accept the End-User Agreement.
5. You will be prompted whether or not to install the Smart Alec Server, Client, or both software:

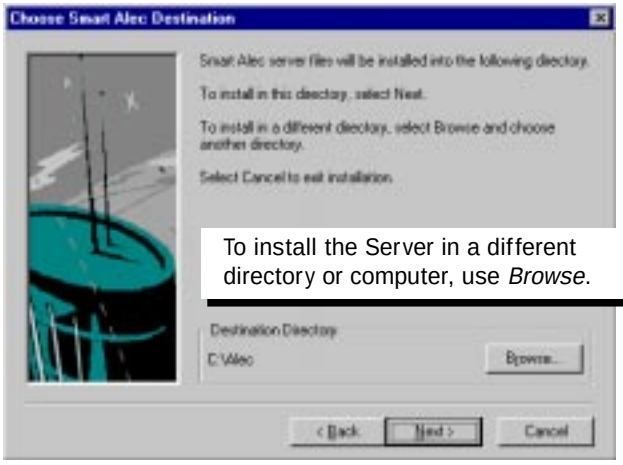


A system administrator would select one of these options.

(If the Server will be installed on its own computer, then select *Smart Alec Server*.)

6. Next, enter the following information:

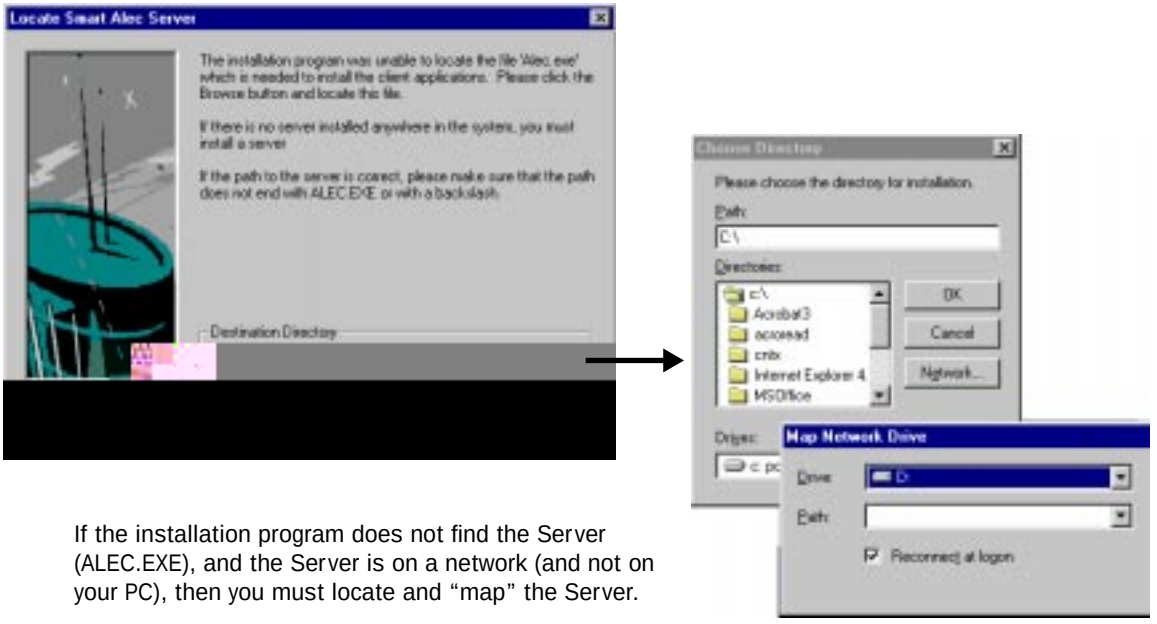
7. The installer will attempt to locate an existing Server. If one is found, the installer will warn you not to install to that directory.
8. Select a directory for the Server:



9. After the Server components have been installed, this message will appear if you are also installing the Client:

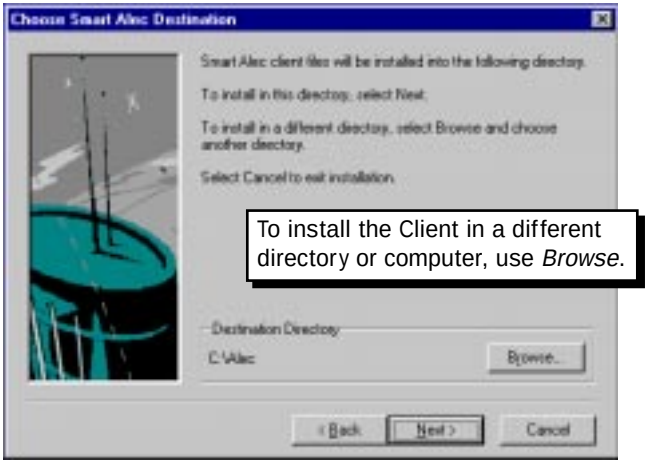
If the Client is not being installed with the Server, then skip to the last step.

10. If the Smart Alec Client is also being installed, the installation program will search for the Smart Alec Server (ALEC.EXE). If the Server is not found or if you want to use a different Server, locate the Server by using *Browse*:



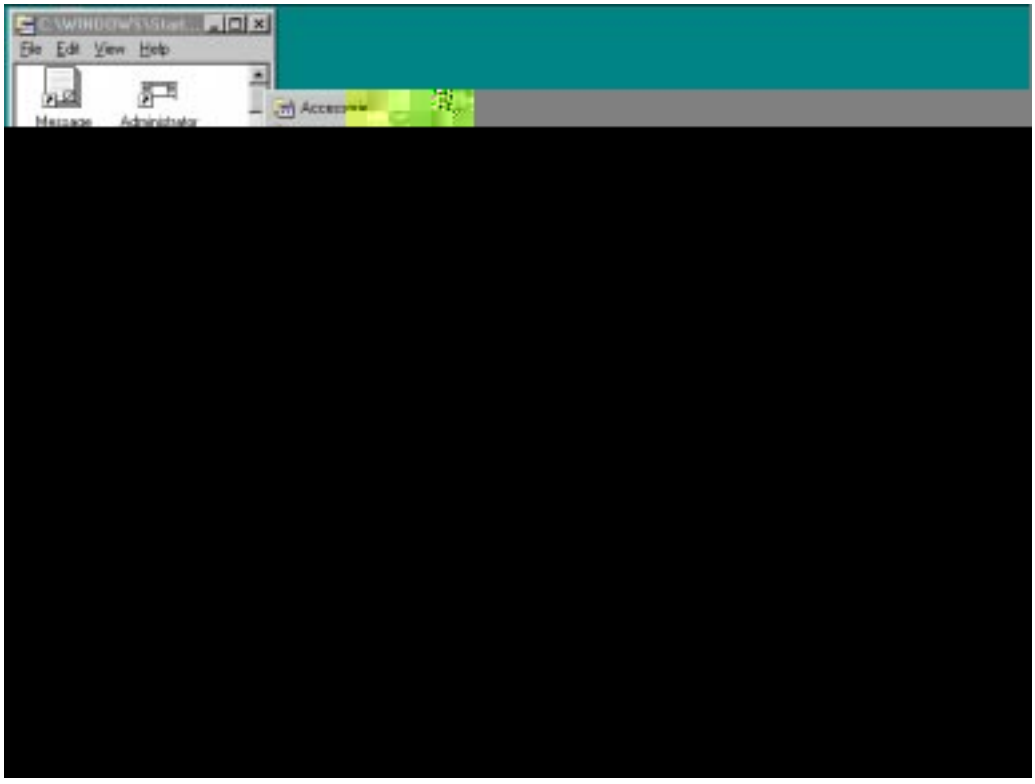
If the installation program does not find the Server (ALEC.EXE), and the Server is on a network (and not on your PC), then you must locate and "map" the Server.

11. Next, you will be prompted where to place the Client:



12. After installation is complete, the following will appear:

13. To check if the installation was successful, look at the *Start* > *Programs* > *Smart Alec*:



Setting up the system

The *Administrator* must be used to set up the following for Þrst time use:

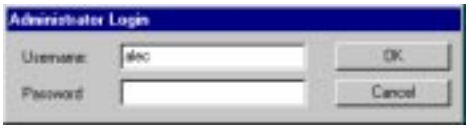
NOTE
Default settings are provided for each Device Driver which should be sufficient in most cases.

- Device Drivers Ñ properties such as baud rate, comm port number, modem init strings must be set for devices such as modems, pagers, etc.
- Locations Ñ are message destinations created by using a speciÞc type of device (such as a modem, wireless. etc.) for each Location.
- Users Ñ are the system administrator and all people who use the Client software. For a User, the system administrator creates a password and decides the Locations, Variables, and Templates the User can access.

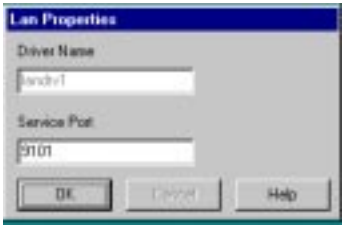
1. Set up Device Drivers

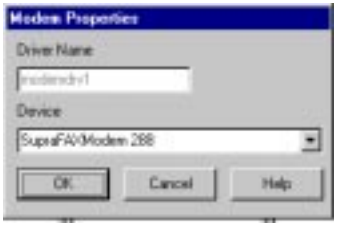
1. Start the *Administrator*. A password prompt will appear:

If you have not set up a *Username* and *Password* for yourself, select *OK* to continue.



2. The Þrst time the *Administrator* is started, you will be asked to verify these Device Driver prompts:



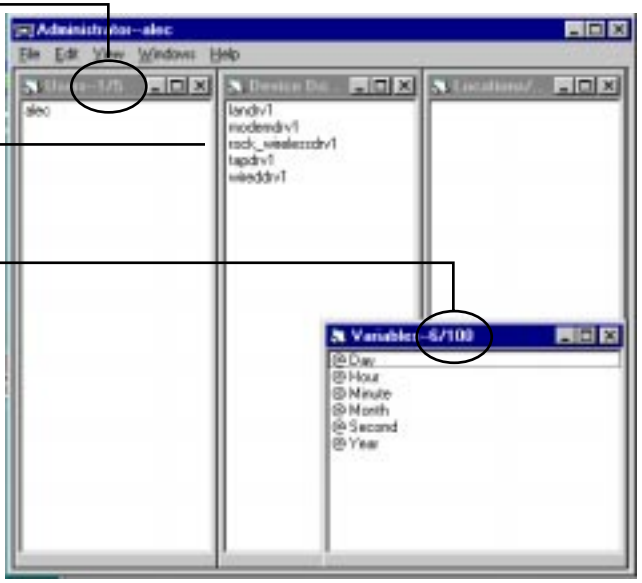


3. When the *Admistrator* window appears, Device Drivers can be changed by double clicking on the driver you wish to change:

This indicates that 1 out of 5 User licenses have been used.

Double click on a Device Driver to change it.

This indicates that 6 out of 100 Variable licenses have been used.

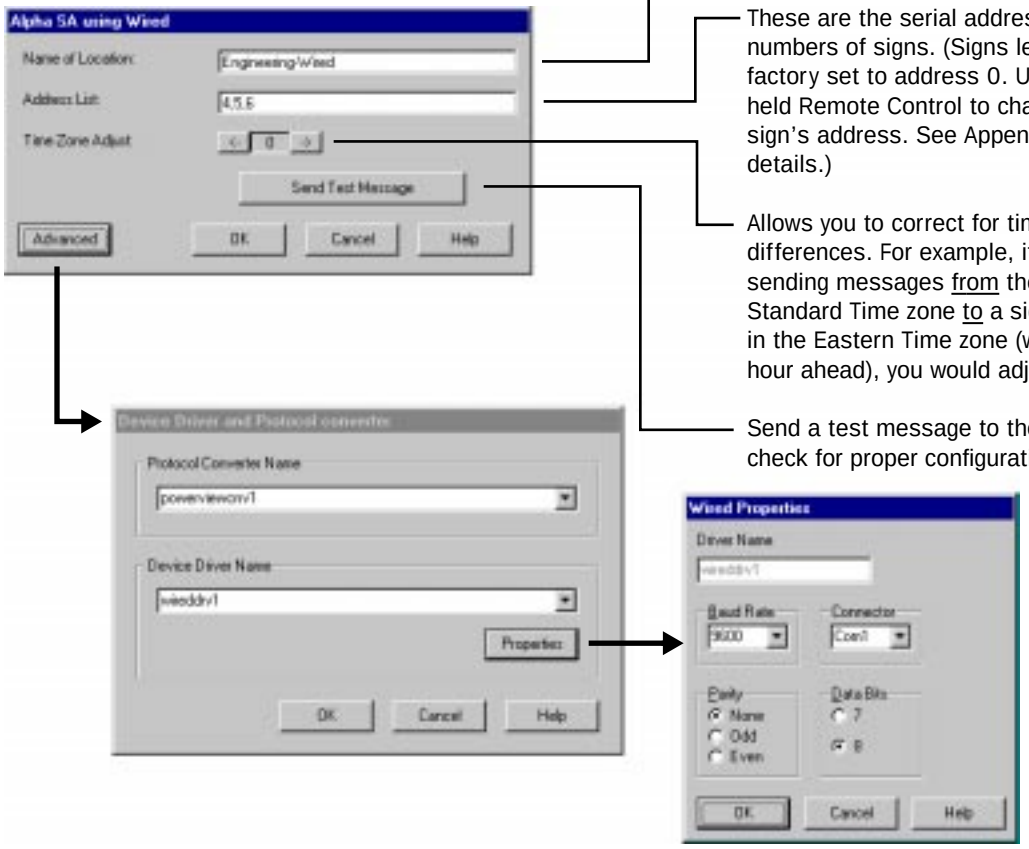


2. Set up Locations

1. Start the *Administrator* if it is not already started:

2. To create a new Location, select *File* > *New* > *Location* and either *Alpha SA* or *Pager*. Then pick the appropriate device for the Location:

3. Set the necessary parameters for the Location:



Use meaningful Location names. (For example, the Wired in the name tells you what type of device is used by this Location.)

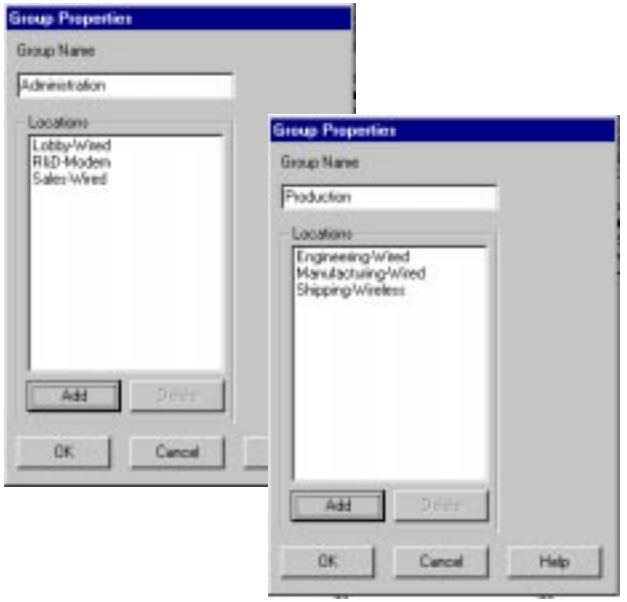
These are the serial address numbers of signs. (Signs leave the factory set to address 0. Use a hand-held Remote Control to change a sign's address. See Appendix N for details.)

Allows you to correct for time zone differences. For example, if you're sending messages from the Central Standard Time zone to a sign located in the Eastern Time zone (which is 1 hour ahead), you would adjust by 1.

Send a test message to the sign to check for proper configuration.

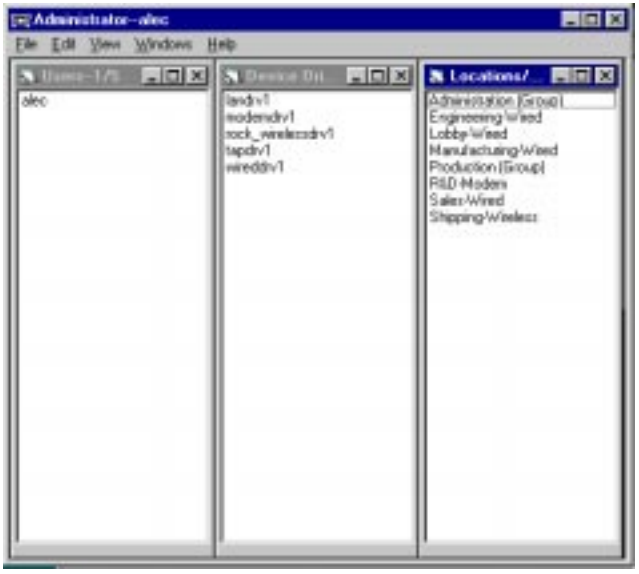
A complete set of Locations might look like this:

4. After all Locations have been created, you can organize them into categories (called *Groups*) so that messages can be sent to a Group as well as a Location. To create a Group, select *File* > *New* > *Group*:



These two Groups were created using the example Locations from the previous step.

The Groups and Locations would appear like this in the *Administrator*:



3. Set up Users

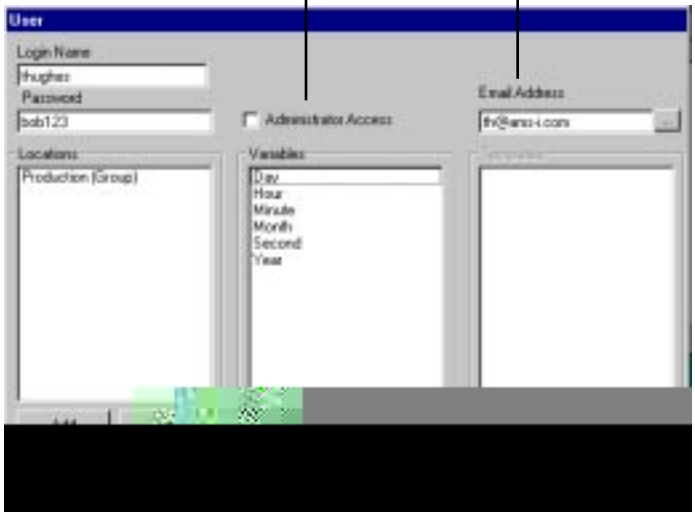
1. Start the *Administrator* if it's not already started.
2. To create a new User, select *File* > *New* > *User*:

Enter the User's *Email Address* (if any).

Check only if the User must have the same rights as the system administrator.

Enter the new User's *Login Name* and *Password*.

Add the *Groups*, *Locations*, *Variables*, and *Templates* to which the User will have rights. Note that *Variables* are set up in *Variable Manager*, and *Templates* are set up in *Editor.*



NOTE: To prevent unauthorized system access, the administrator should add a password for the default User *alec*.

3. User information can be changed by simply double clicking on a User's name in the *Administrator*.

Starting the Server

To run the Server, select *Start* > *Programs* > *Smart Alec*. Then open the *Smart Alec Launch Utility*. A default list of applications will be launched.

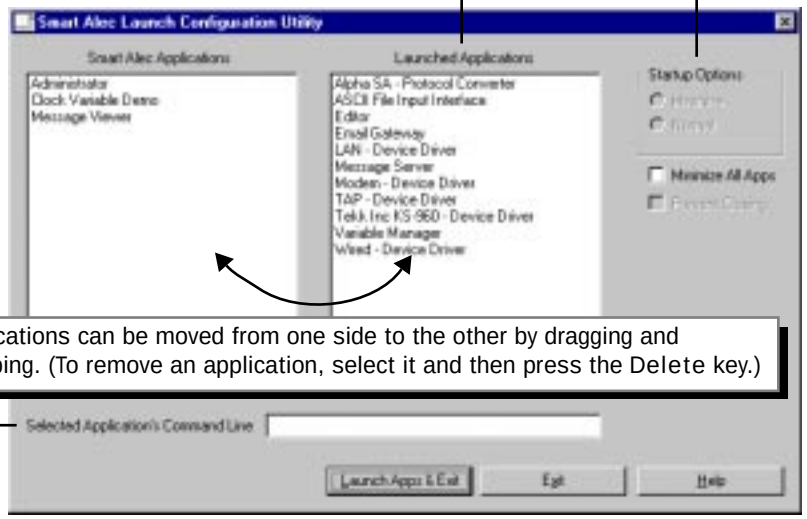
Using the Smart Alec Launch Configuration Utility

To add or delete from the default list of applications, open the *Smart Alec Launch Conbguration Utility*:

An application can be set to open *Minimized* or *Normal* (as an open window).

This is a list of Smart Alec applications that will be launched when *Smart Alec Launch Utility* is run.

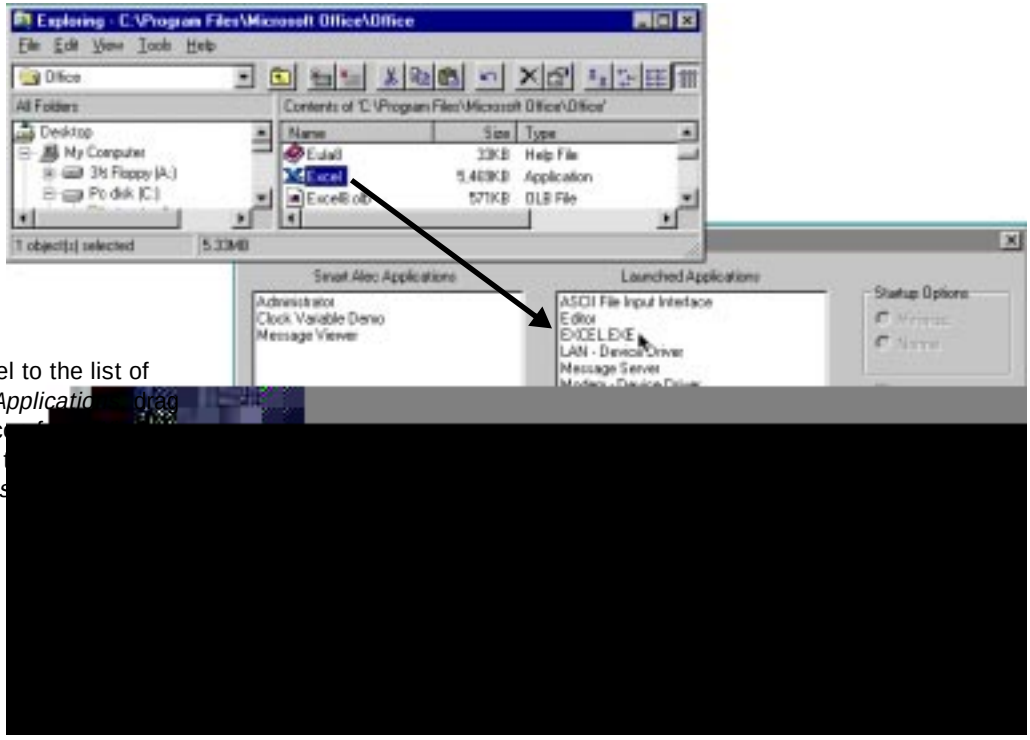
This is a list of Smart Alec applications that will not be launched.



See “Using the “Selected Applications Command Line”” on page 14.

Launching "external" applications

In addition to Smart Alec applications, any executable Þle can be added to the *Launched Applications* list. For example, if you have a DDE connection to a Microsoft Excel Þle you can use *Windows Explorer* to add the Excel executable to the *Launched Applications* list (as shown below):

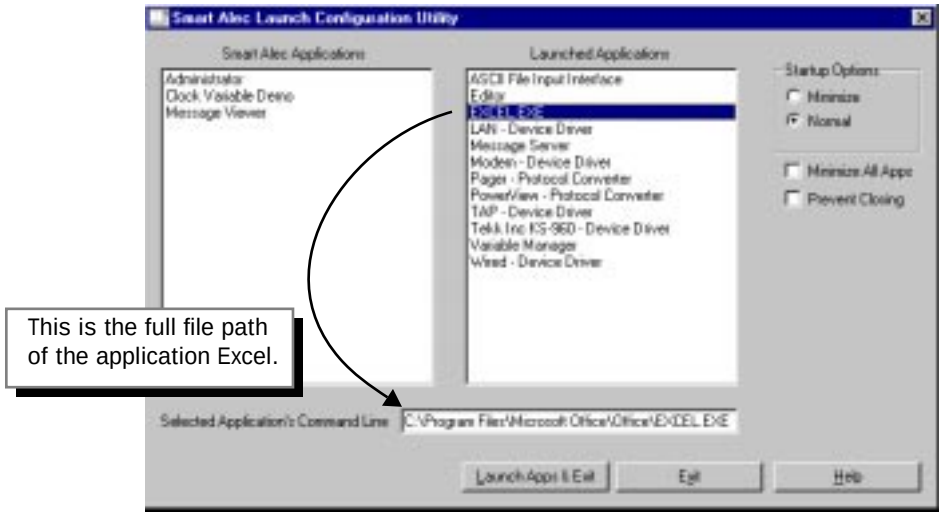


To add Excel to the list of *Launched Applicatio* drag the Excel ic *Explorer* to t *Applications*

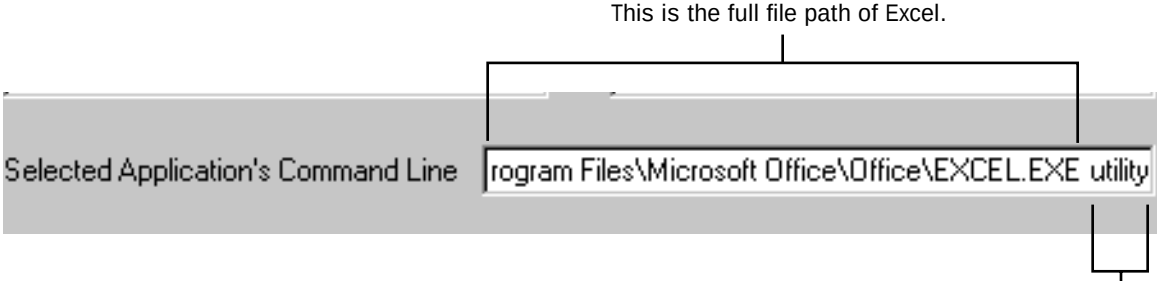
Using the "Selected Applications Command Line"

The *Selected Applications Command Line* gives you the ability to open a particular document along with its application. For example, if you wanted to open an Excel spreadsheet named UTILITY.XLS, do the following:

1. Select the application (in this case Excel) from the *Launched Applications* list.



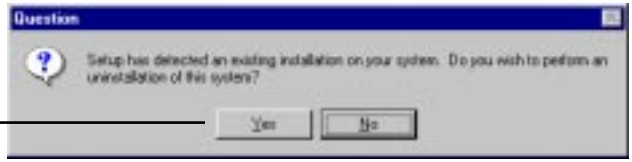
2. Add the application's document (in this case UTILITY) full file path after the application's executable file path:



User (Client) installation

1. Close all applications on your computer.
2. Insert the Smart Alec CD-ROM in your computer. The installation program will autostart, and this screen should appear:

3. If there is a version of Smart Alec already on your computer, the following prompt will appear:
   - ¥ Select *Yes* if you want to remove an older version. **After un-installation is finished, you will have to re-start the install program.**
   - ¥ Select *No* if you need to keep the previous version of software. Normally, there should be no need to keep an older software version.



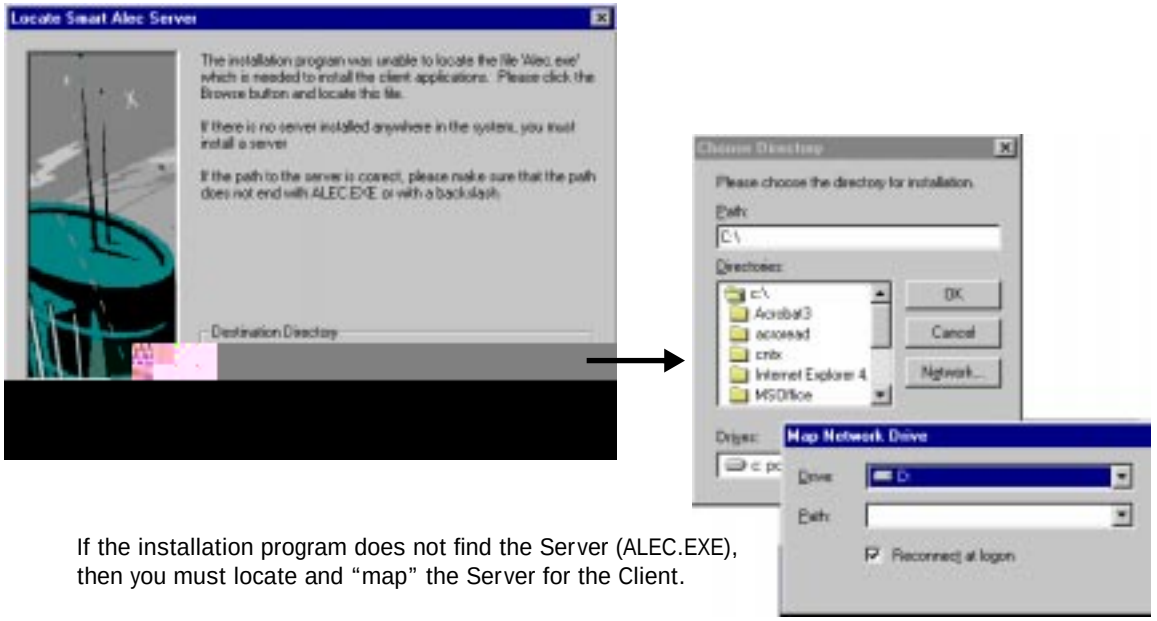
Selecting *Yes* deletes all setup information — Users, Locations, etc. Make sure all this information is recorded before continuing.

4. The installer will display prompts in which you must accept the End-User Agreement.
5. You will be prompted whether or not to install the Smart Alec Server, Client, or both software:

Since you're just installing the Client, select this option.

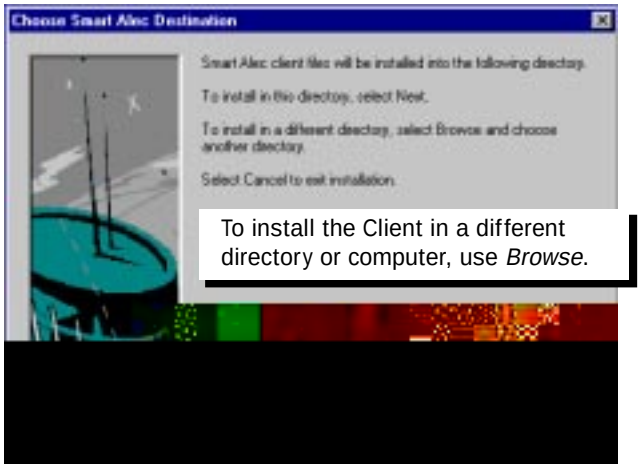
6. Next, enter the following information:

7. The installation program will search for the Smart Alec Server (ALEC.EXE). If the Server is not found, locate the Server by using *Browse*:



If the installation program does not find the Server (ALEC.EXE), then you must locate and "map" the Server for the Client.

8. Next, select a directory for the Client Þles:



9. To check if the installation was successful, look at the *Start* > *Programs* list for Smart Alec.

Un-installation

To un-install Smart Alec, just re-run the installation program from the CD-ROM.

When the following prompt appears, select *Yes*:

Selecting *Yes*

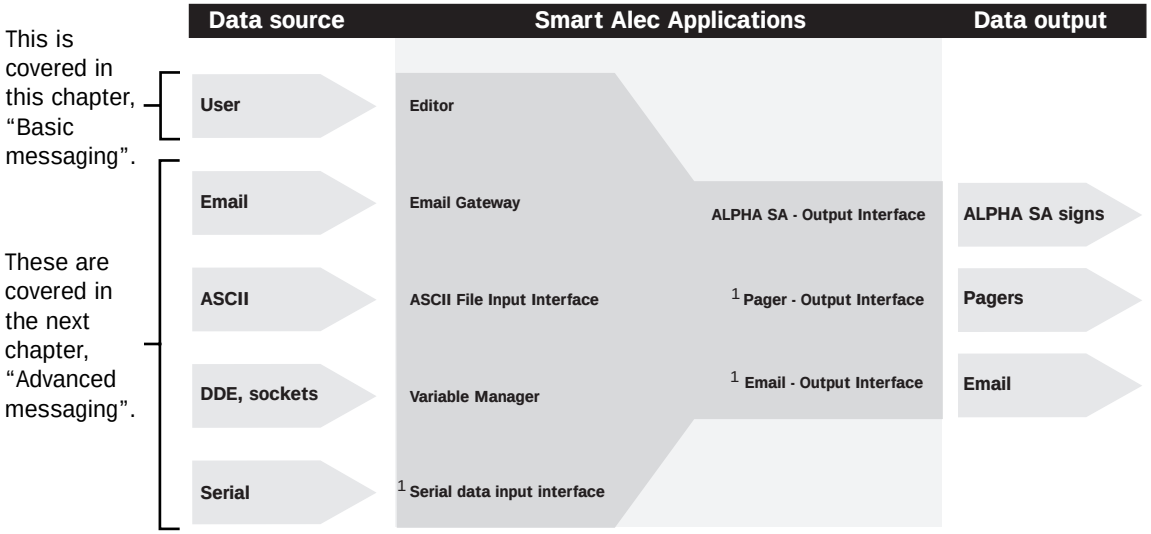
Basic messaging

Because the Smart Alec software allows you an inÞnite number of ways to create a message for a device like a sign or pager, there is no way to show every possible example.

However, in the following pages, examples of basic and advanced messaging will be presented.

First, the basics . . .

Messages can come from a variety of different sources:



[1] This is an option that can be purchased separately.

Example 1 — Your first message

Open the Editor

1. To create your Þrst message, open the *Editor*. At the prompt, type your *Username* and your *Password*:

NOTE

The default *Username* is "alec".
There is no default *Password*.

Create a message

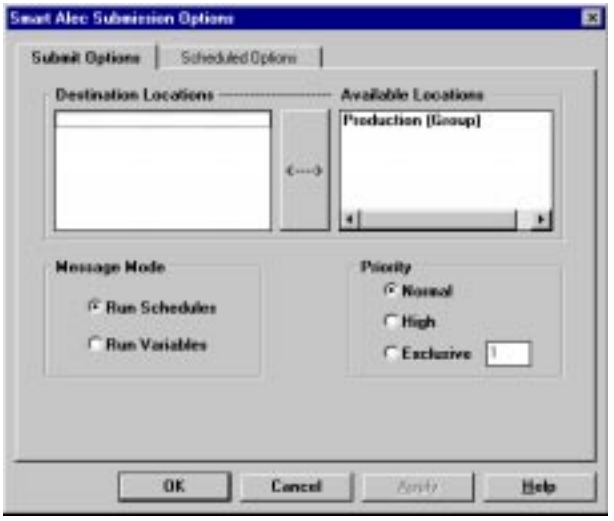
2. Select *File* > *New Message* and type ÒYour Þrst messageÓ in the message window:

NOTE

Instead of selecting *File* > *New Message* to create a new message, you can use this icon:

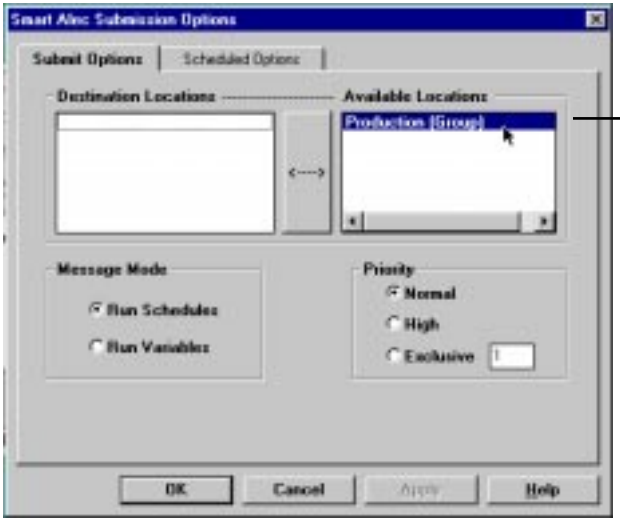
Select <u>where</u> a message will be sent

3. To choose a place (or places) for the message to go, select *Submit* > *Setup Options*. This window will appear:



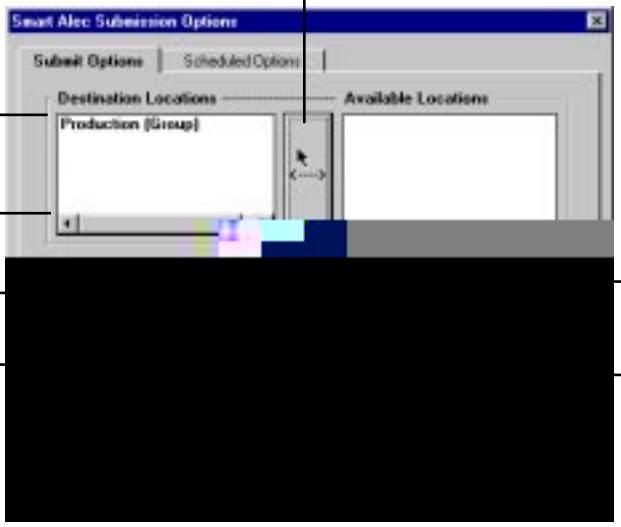
NOTE: The *Smart Alec Submission Options* window will open automatically if no *Destination Locations* have been selected. Otherwise, select *Submit* > *Setup Options* to open this window.

4. Select a Location from the list of *Available Locations* Ñ *Production (Group)* in this case Ñ and then click on the <-----> button:



Select one or more Locations where your message will be sent. (The *Available Locations* for each User are set using the Administrator application.)

Then click on this button to move a Location to the *Destination Locations* list.



Your message will be sent to all the Locations that appear in this list.

When *(Group)* appears at the end of a name, it means the name represents multiple Locations. In this example, *Production (Group)* consists of the Engineering, Manufacturing, and Shipping Locations.

Run Schedules = message will be displayed when a preset time is reached.
Run Variables = message will be displayed when a Variable reaches a certain value or “trigger”.

The *Priority* level affects when a message is displayed. *Exclusive 8* is the highest level.

Select <u>when</u> and how long a message will be displayed

5. In the *Smart Alec Submission Options* windows, select *Scheduled Options* and set when a message will be displayed. Then select *OK*:

An *Immediate Message* will be sent as soon as you click on *OK*.

An *Immediate Message* can only be scheduled to appear for a certain length of time (or duration)

If this box is not checked, then more scheduling choices are available.

If checked, the time used in scheduling will be the time on the computer that is running the Smart Alec Server.

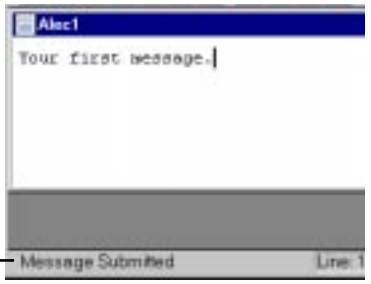
Send the message

NOTE

Instead of selecting *Submit Message* to send a message, you can use this icon:

6. After clicking on *OK*, select *Submit* > *Submit Message* to send the message:

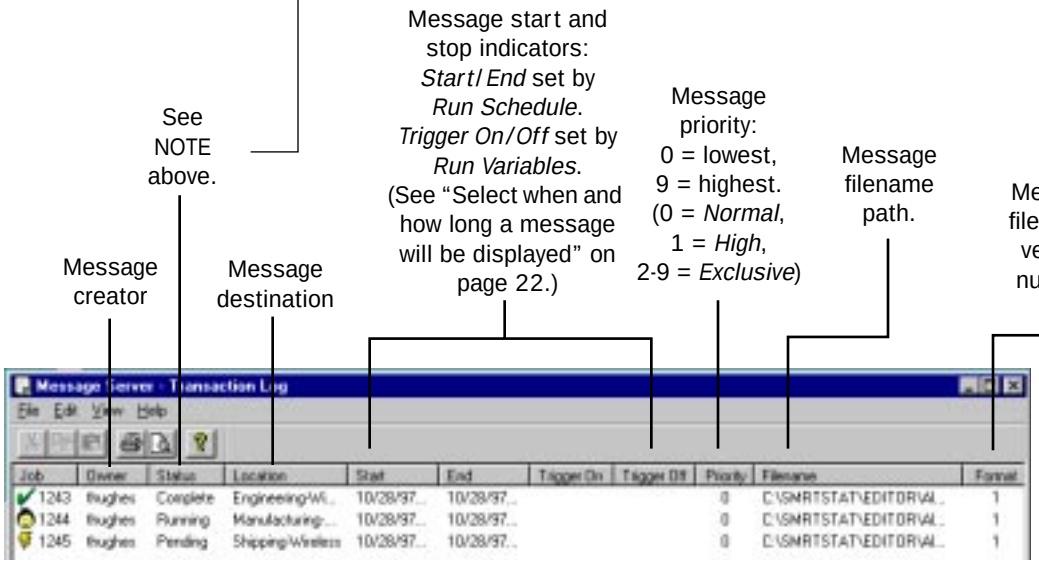
The Editor's status line lets you know that the message has been sent.



Watch the message

7. After a message is submitted, it can be tracked by watching its *Status* in the *Message Server* application:

NOTE: The *Status* of a message Ñ *Pending*, *Running*, or *Complete* Ñ indicates the status of a message within the Smart Alec Server. Because Smart Alec software does no handshaking with output devices, the *Status* condition does not reßect if a message was actually received and displayed by an output device.



Example 2 — Using Modes to change how a message looks

ÒModesÓ are special effects that change the way a message appears on a sign. For example, the Rotate Mode moves a message from right to left across a sign. In this example weÕll create a message that displays employee birthdays.

In this example, the Hold and Rotate Modes are used to display employee birthdays. This set up can be used for a variety of uses such as announcements and anniversaries.

Using the Hold Mode, the top line remains fixed while the names go by.

Using the Rotate Mode, the names move from right to left on the bottom line.

NOTE: Some Modes are not available on all signs. See ÒAppendix H: What Modes are available on signsÓ on page 114.

1. To create the Example 1 message above, open the Editor. Select *File* > *New Message* to open a new message window. Then select *Modes* > *Hold*:

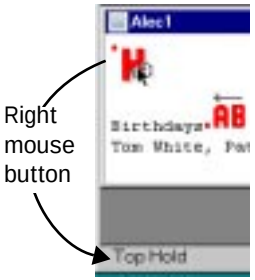
2. When the following window appears, select *Top*:

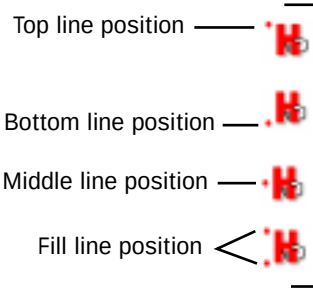
Line Position is where a message appears on a sign. See “Appendix L: Understanding line positions (Top, Middle, Bottom, Fill)” on page 118.

3. The icon for Hold will appear in the message window:

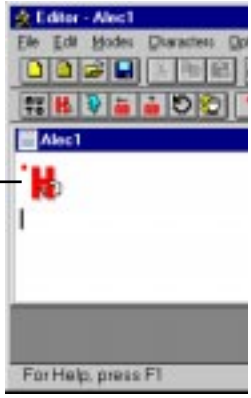
NOTE

Place the cursor over an icon and press the right mouse button to see a short description of the icon:



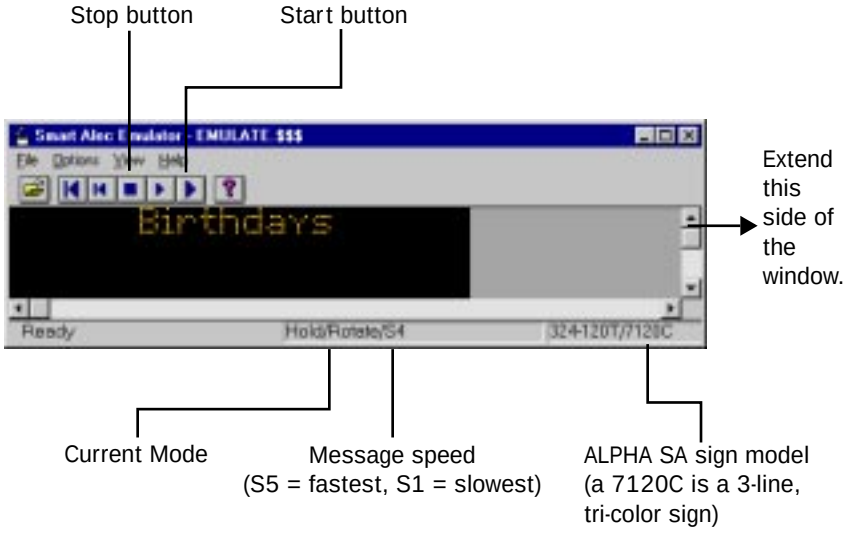


A dot on the Hold icon shows the message line position.



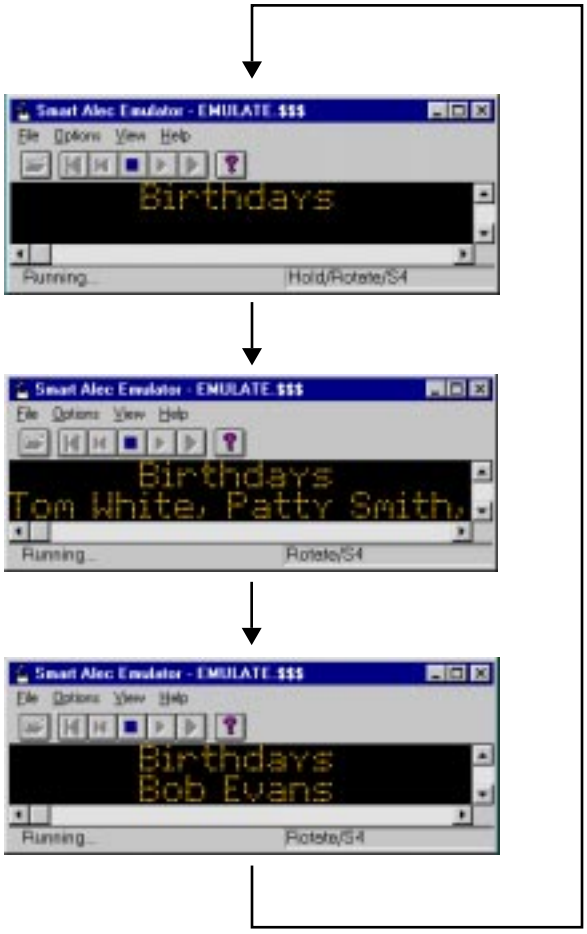
4. Type ÒBirthdaysÓ. Select *Modes* > *Rotate* > *Standard* and the *Bottom* line position. Then type ÒTom White, Patty Smith, Bob EvansÓ:

5. To get an idea of how this message will look on a sign, select *File* > *Emulate All*. When the *Smart Alec Emulator* window appears, click on the stop button. Then extend the right side of the window:



6. Next, instead of simulating a 3-line sign (like the 7120C), we'll emulate a 2-line sign. To do this, select *Options* > *Sign Model*. Then choose *316-120T/4120C* and select *OK*:

7. Now run the message on the Emulator:



NOTE

The Smart Alec Emulator does not show exactly how a message will appear on a sign — that is, it's not WYSIWYG (What You See Is What You Get).

However, the emulator should be used to check how fonts and colors will appear on a sign — and also how much text will appear on a line.

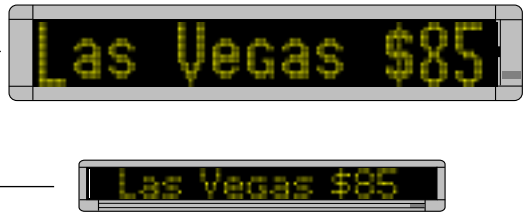
Example 3 — Using Characters to change how a message looks

ÒCharactersÓ are options that change the appearance of text in a message. For example, normal-sized text (called *Seven Row Normal*) is seven LED rows high. However, some signs allow you to create text that is 15 or 16 rows high using the *15/16 Row Normal* option.

In this example, weÕll create a message that displays airline fares.

In this example, the Roll mode, 15/16 Row Normal text, and the New Line option are used to display airline prices for several cities.

A single message will be used to create large text on 2-line signs and normal text on 1-line signs.



NOTE: Some Characters are not available on all signs. For a list of what is available, see ÒAppendix I: What Characters & Colors are available on signsÓ on page 115.

1. Open the Editor. Select *File* > *New Message* to open a new message window. Then select *Modes* > *Roll* > *In*:

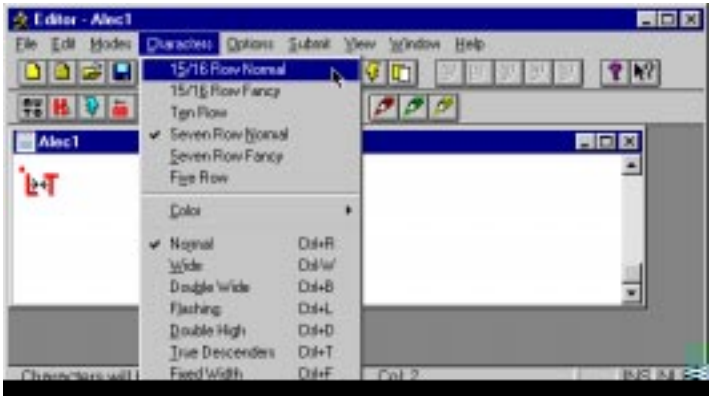
OOPS!

By selecting *Top*, we've made an error that will show up later.

However, we'll keep going to demonstrate a common mistake and how to correct it.

2. Select *Top* when this window appears:

3. Because we want large text, select *Characters > 15/16 Row Normal*. Then type ÒLas Vegas $85, Chicago $199, New York $235Ó:



15/16 Row Normal icon

4. Let's see how the message looks so far. First, let's see how it looks on a 1-line sign. Run the *Smart Alec Emulator*. Select *Options* > *Sign Model* and change the sign being emulated to 215C. Start the emulator and this should appear:

Since a 1-line sign like the 215C can't display *15/16 Row Normal*, the sign displays the smaller *Seven Row Normal* instead. This is what we want.

5. Stop the emulator and change the sign to a 4120C (a 2-line sign). Re-start the emulator. You should see this:

Why doesn't the large text appear on the 2-line sign?

Because in a previous step, we selected the *Top* instead of the *Middle* line position:

To make the large *15/16 Row Normal* text appear correctly, the line position must be changed from *Top* to *Middle*.

6. To make sure the large *15/16 Row Normal* characters appear correctly on a 2-line sign, start by deleting the *Roll* icon from the message:

To delete the Roll icon, place the cursor after the icon and press Backspace.

7. Next, without moving the cursor in the message, select *Modes* > *Roll* > *In* as you did before. Then, when the following window appears, select the *Middle* line position:

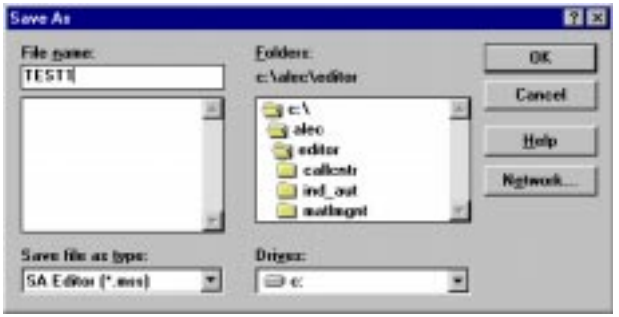
8. Now display the message on a 2-line sign in the *Smart Alec Emulator*:

The large *15/16 Row Normal* text now appears correctly.

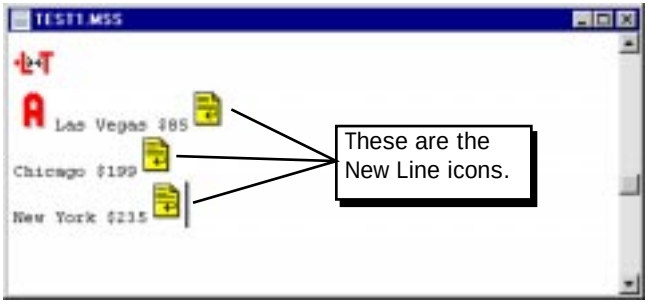
Your message text should now look like this:

Notice that the dot on the Roll icon indicates the Middle line position.

9. Select *File* > *Save* and save your message as TEST1:



10. We'd like to display a city name and dollar amount at the same time on a sign. In order to do this, add *Option* > *New Line* after each city-dollar pair. The message should look like this:



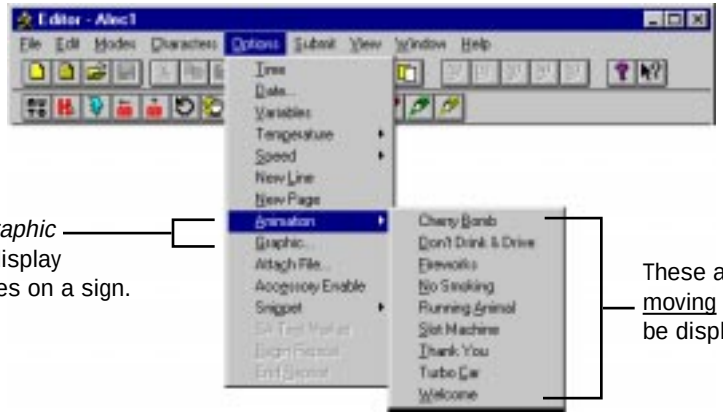
NOTE
Don't use carriage returns to break up a line of text — use New Line.

11. Run the *Smart Alec Emulator* to see the effect of adding New Lines:

The New Line Option formats text correctly.

Example 4 — Using graphics in a message

The *Animation* and *Graphic* Options allow you to include small bitmapped graphics in messages:



The *Animation* and *Graphic* Options are used to display moving and still images on a sign.

These are the only moving images that can be displayed on signs.

The *Animation* Option is a series of moving images Ñ like *Cherry Bomb* and *Fireworks* Ñ that have already been created for you. For example, *Running Animal* will display a horse galloping across a sign.

With the *Graphic* Option, you can create your own bitmapped image which can then be placed in a message.

NOTE: Before creating a bitmapped image, make sure you understand how images are displayed on a sign. (See ÒAppendix M: Understanding how text and graphics are displayed on signsÓ on page 119.)

NOTE: Because bitmapped image editing software is not included with Smart Alec software, youÛll need a program to create, edit, and save images. In the following example, the Paint Shop Pro program is used.

In the following example we'll make a left and a right "arrow" and then use the *Graphic* Option to display both arrows on a sign:

The two arrows we'll make are 7 rows (or pixels) high. Using this height permits the arrows to be used on both 1-line and 2-line signs.

2-line sign

1-line sign

1. To make the two graphic arrows, the program Paint Shop Pro will be used. However, any bitmapped graphics editor can be used as long as the images can be saved as a BMP file, and the editor should have a "zoom" function to make images easily viewable.

   Open Paint Shop Pro:

2. Next, select *File* > *New*. When the *New Image* window appears, make the width and height of the new graphic 16 x 7:

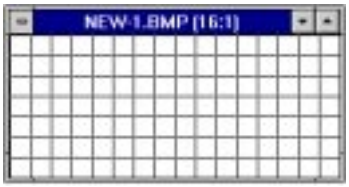
   NOTE: Width and Height deÞne the size of the graphic in pixels Ñ in this case, 16 pixels wide x 7 pixels tall. These numbers also correspond to a signûs columns and rows Ñ the 16 x 7 graphic will occupy a space 16 columns wide x 7 rows tall.

We're using 7 because this is the height of a single line on a sign.

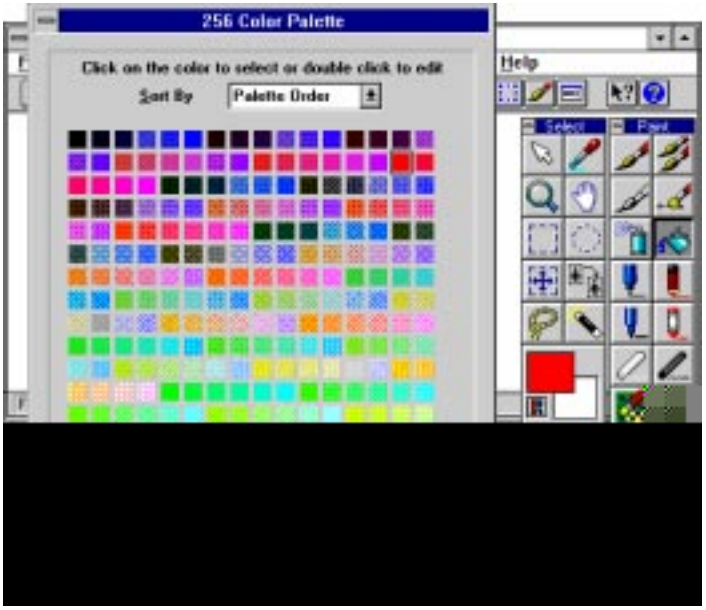
Because a maximum of only 8 colors can be used on a sign, select 8 or 16 colors instead of 256 colors, if possible.

3. After selecting *OK*, a very small window should appear. Increase the size of this window using the editing softwareûs zoom feature:

Use the zoom feature to increase the size of the small window until *16:1* appears on the window.

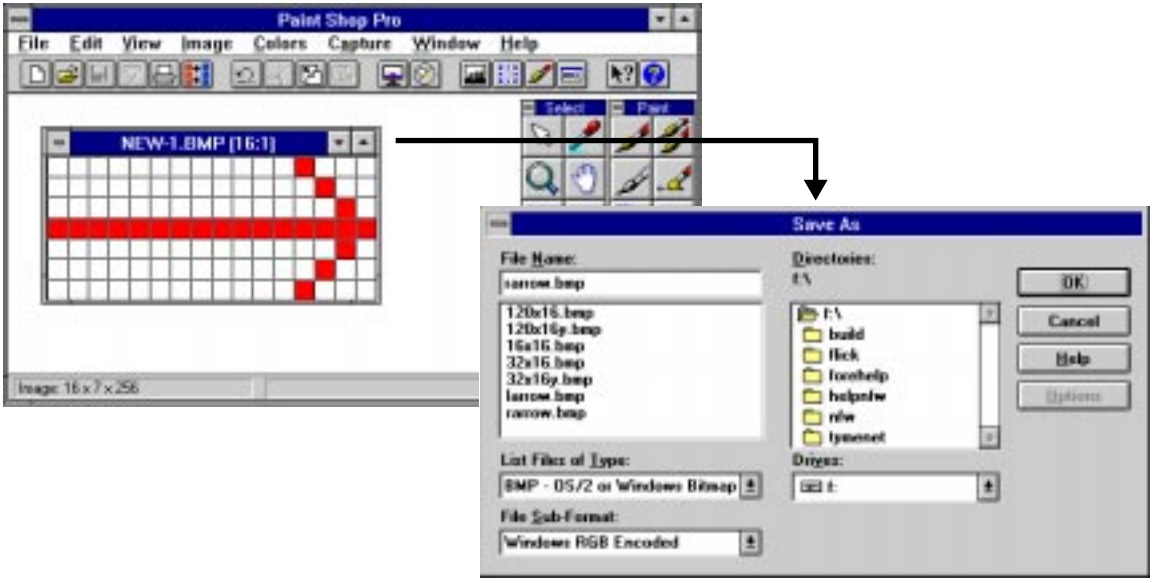


4. Select a color for your graphic:

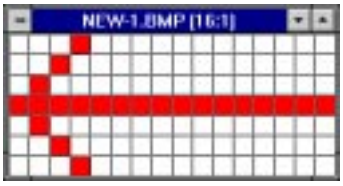


Be careful what color you use. Not all colors can be displayed on all signs. (See “Appendix M: Understanding how text and graphics are displayed on signs” on page 119.)

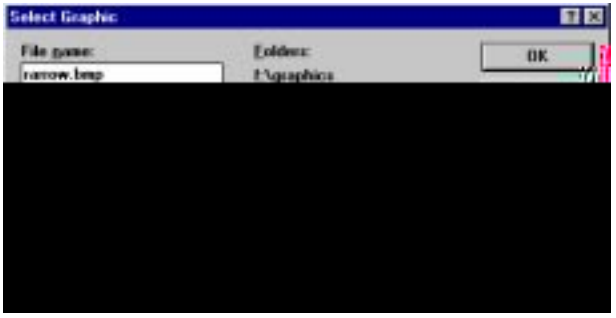
5. Draw the right arrow and save it as a BMP graphic named RARROW.BMP:



6. Create the other arrow and save it as LARROW.BMP:



7. Next, open the Smart Alec *Editor*. Select *File* > *New*: and then *Options* > *Graphic*. When the *Select Graphic* window appears, select the RARROW.BMP Þle you just created:



8. Next, type ÒNewsÓ after the *Graphic* icon. Then use *Graphic* again to add the LARROW.BMP Þle after the word ÔNewsÓ:

9. Finally, run the message emulator to preview the message:

Advanced messaging

Using variable data in messages

The *Variable Manager* is responsible for bringing variable (changeable) data from outside the Smart Alec system into Smart Alec. An example might be to display the temperature of a liquid on the production ßoor in a message.

Variables can be used to:

- change the content of a message, and
- trigger a new message

Example 1 — Changing the content of a message

In this example, we will create a message which contains the time and send the message to a sign. The message on the sign will always show the correct time.

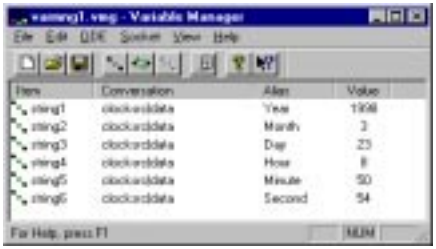
NOTE

We could show the time easily with an option in the Editor, but this is a simple example with tools you have now.

You need to run the following Smart Alec components and log in as user ÒAlecÓ to use this example:

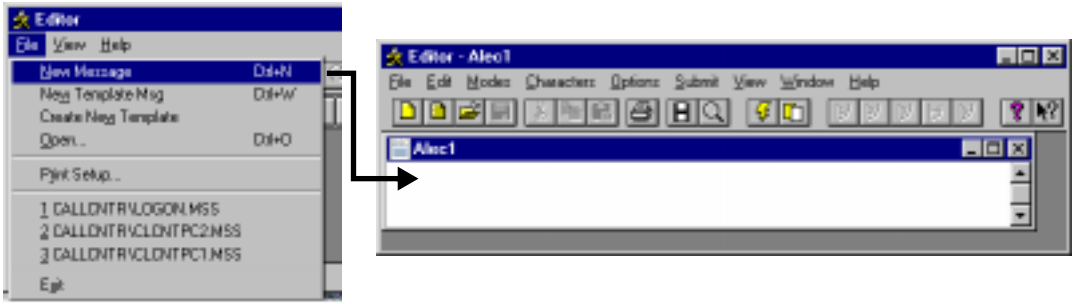
- *Message Server*
- *Editor*
- *Variable Manager*
- *Clock Variable Demo (Clocksrc)*
- *ALPHA SA Output Interface*
- *Device Driver - Wired*

1. Open *Variable Manager.*

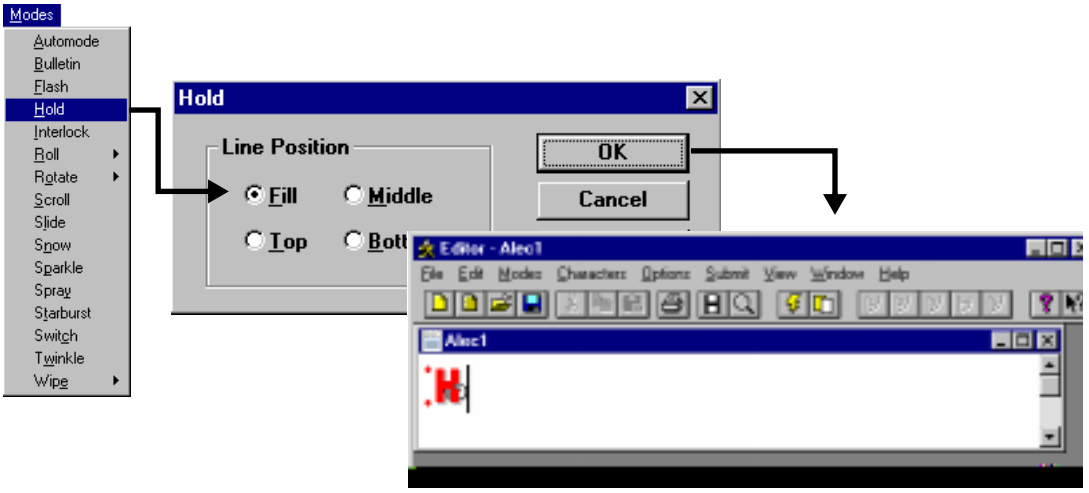


If the items in this window don't appear, select *File > Open*. Then open the file varmng1.vmg. This file is located in the same directory as the *Variable Manager*.

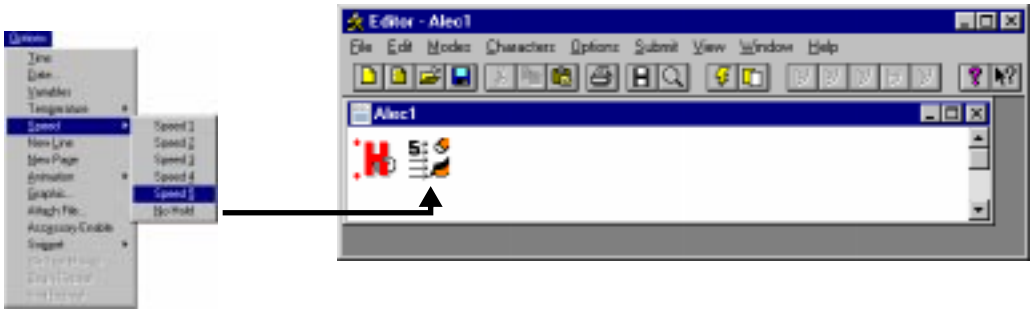
2. In the *Editor*, select *File > New Message*.



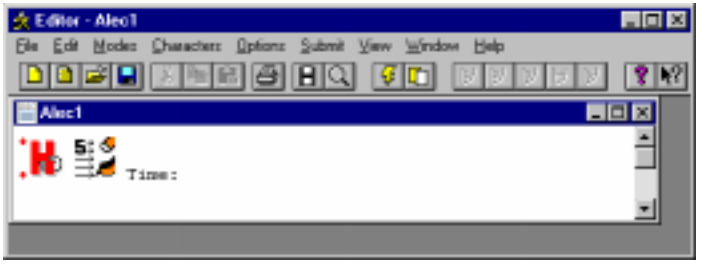
3. Select *Mode > Hold*. Then select *Fill* and *OK*. This way, the message will remain in one place on the sign.



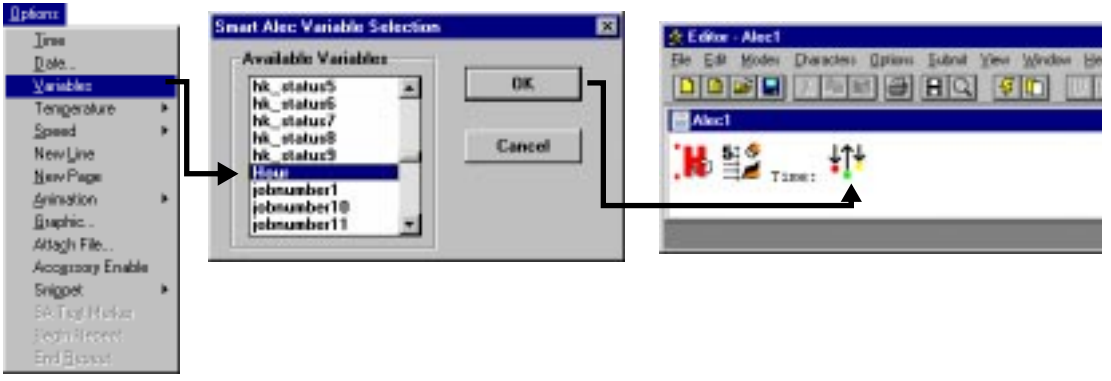
4. Select *Options* > *Speed* > *Speed5.* This way, the message will be shown quickly and the Variables will be updated frequently.



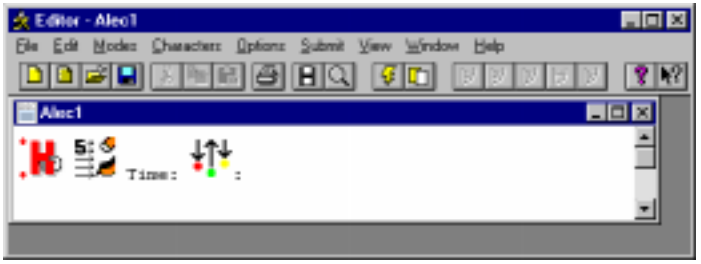
5. Type ÒTime: Ó in the message (with a space at the end.)



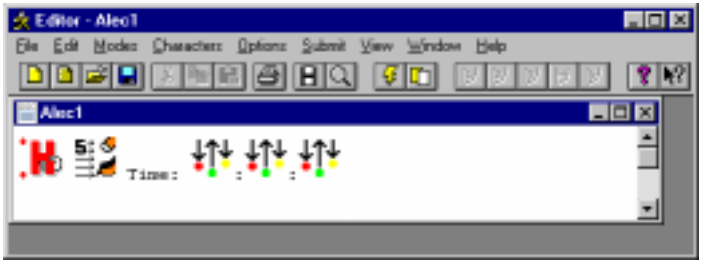
6. Select *Options* > *Variables*, highlight *Hour*, and then *OK*.



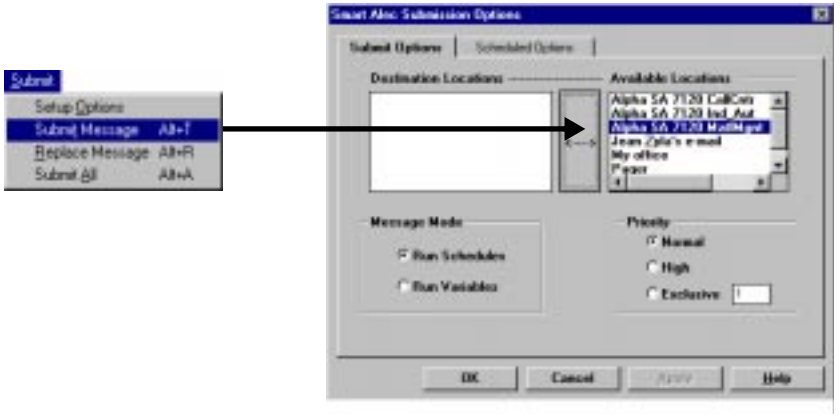
7. Type Ò:Ó in the message (with no spaces before or after.)



8. Repeat Steps 6 and 7 for *Minute*. Then repeat Step 6 for *Second*. Your message should now look like this:



9. Select *Submit* > *Submit Message*, highlight the name of the destination location. (For this example, the destination location must be for a sign, not a pager or email.) Then click the double-arrow button to set the destination.



10. Select the *Scheduled Options* tab and then *OK* to let the message run for the default two minutes.

You should now see the time being updated on the ALPHA sign, like this:

Note that the display of the seconds may appear to skip from time to time. This is due, not to the counter in the sign, but rather to how quickly Smart Alec can update the sign.

Example 2 — Sending a new message based on changing data

Smart Alec can be used to start a message when data outside of Smart Alec changes. In this example, we will create a message that alerts us at 30 seconds after each minute.

You will need to run the following Smart Alec components and log in as user ÒAlecÓ to use this example:

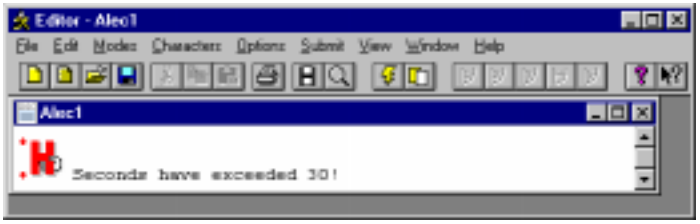
- *Message Server*
- *Editor*
- *Variable Manager*
- *Clock Source*
- *ALPHA SA Output Interface*
- *Device Driver - Wired*

NOTE

Example 2 assumes you are familiar with the steps in Example 1.

Here are the steps to take to make this happen:

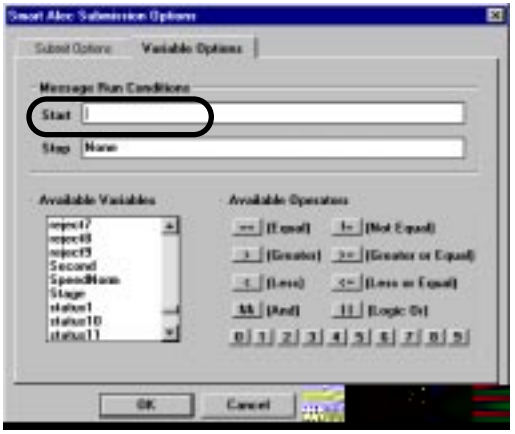
1. In the *Variable Manager*, select *File* > *Open* and open the Þle VARMNG1.VMG, if itÕs not already open. This Þle is located in the same directory as the *Variable Manager*.
2. In the *Editor*, select *File* > *New Message*.
3. Select *Mode* > *Hold*. Then select *Fill* and *OK*.
4. Type ÒSeconds have exceeded 30!Ó in the message.



5. Select *Submit* > *Submit Message*.

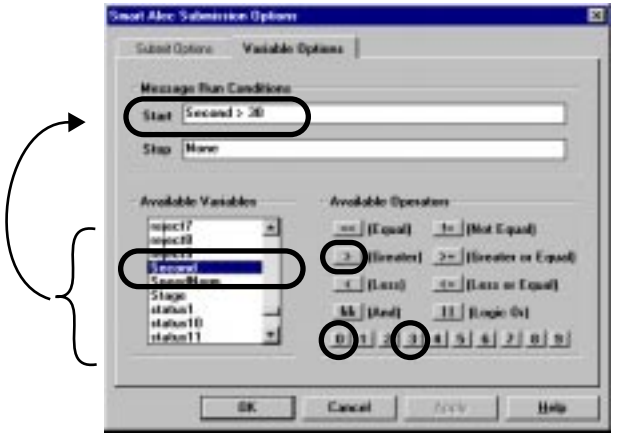
6. Highlight the name of the destination location, select the double-arrow button and then *Run Variables*:

7. Select the *Variable Options* tab.
8. Click anywhere in the *Start* box and the word ÒNoneÓ will disappear.

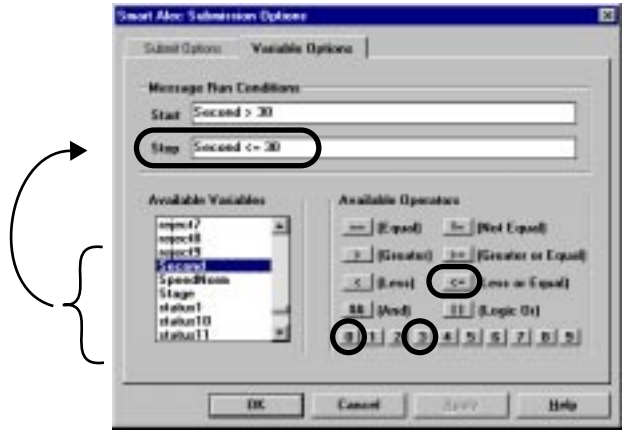


9. In this step we will create a statement to determine when to start running the message. Double-click on *Second* in the *Available Variables* list. Next, click once on the buttons for >, *3*, and *0*, in that order.

While you can type this in directly, using the mouse is more reliable.



10. Click anywhere in the *Stop* box and the word ÒNoneÓ will disappear.
11. In this step we will create a statement to determine when to stop running the message. Double-click on *Second* in the *Available Variables* list. Next, click on the buttons for <=, *3*, and *0*.



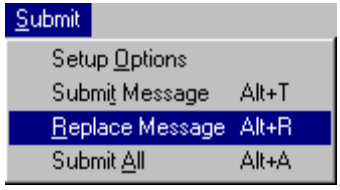
NOTE

For either the *Start* or *Stop* condition, if you enter a negative number or an alphabetic character, (like when "Temperature <= -50" or when "Status = On") then when you select *OK*, Editor shows an error for an "undefined *Variable*" and asks if it should be accepted. As long as the condition is correct, choose *Yes* and ignore the warning.

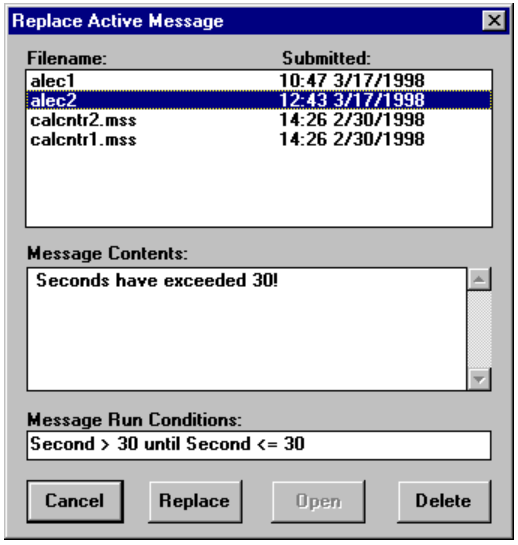
12. Click *OK*. to set these run conditions and send the message. Now each time the seconds in the *Clock Source* are greater than 30, the message ÒSeconds have exceeded 30Ó! should appear on the display, as shown below. Each time the seconds return to zero, the message will no longer appear on the sign.

Example 3 — Stopping a message

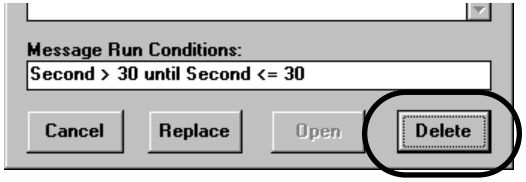
1. The message in ÒExample 2 Ñ Sending a new message based on changing dataÓ will continue as long as Smart Alec remains running. To stop the message, select *Submit > Replace Message* in the *Editor*.



2. Highlight the name of the message you want to turn off (e.g., Òalec2Ó). The contents of each message and its run conditions are shown in case youÕre not sure which to choose.



3. Select the *Delete* button, and then select *OK*.

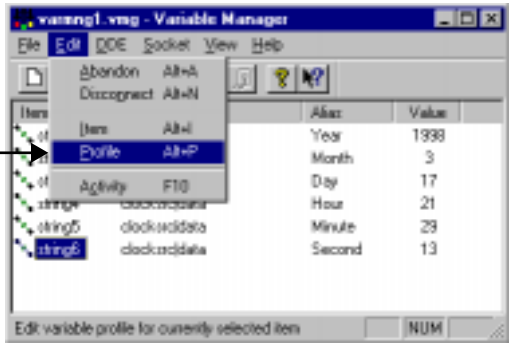


Example 4 — Changing the appearance of data in a message

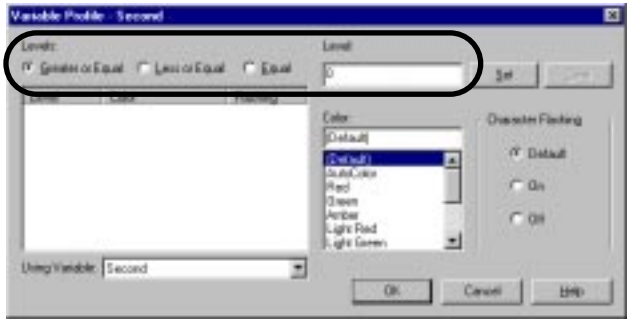
In addition to simply using data from outside of Smart Alec, you can determine how the data should look in the message based on the value of the data. In this example, we'll set two conditions for the *Second* data. This way, whenever *Seconds* are shown in a message (like Example 1 with Hours / Minutes / Seconds) the *Seconds* will stand out from the rest of the message.

1. In the *Variable Manager*, highlight the *Item* for which you want to create a profile. For this example, choose 'string6' for *Second*.

The profile can change the color or flashing state of the data in the message (provided the sign supports these) without changing the looks of the surrounding text. If a profile is not defined for the data, the data will be displayed with the same looks as the rest of the message text.



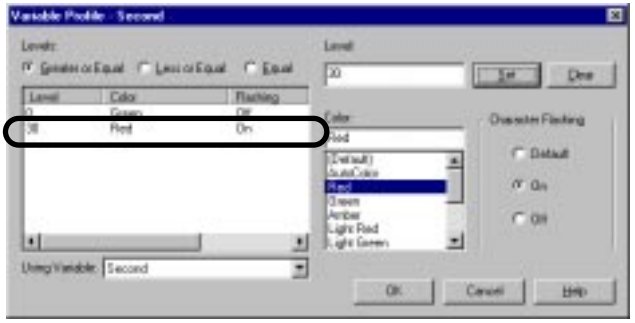
2. Select *Edit > Profile* as in the picture above.
3. For the *Level*, enter the value at which the appearance should change. We'll specify *Greater or Equal* to 0. This means that the appearance will change when *Seconds* is zero, that is, every minute.



4. Select the color and ßashing state for this *Level*. Select *Green* and *Flashing* Off. At the start of each minute, we want the display of *Seconds* in the message to be shown in green and to not ßash.

5. Select the *Set*

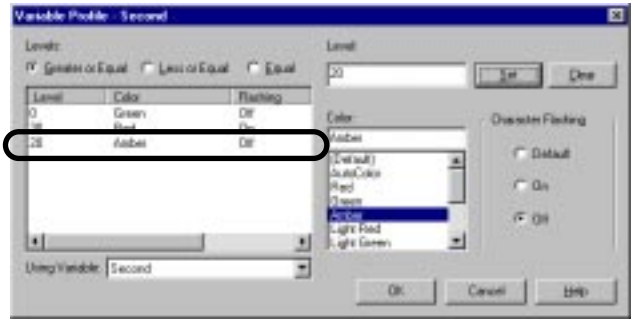
after each minute, the *Seconds* will be shown in red and will ßash.



7. Click *OK*. Now, when you run the message we created in ÒExample 1 Ñ Changing the content of a messageÓ on page 39, the look of the seconds will change every half-minute.

Example 5 — Listing Variable Profile statements in a new order

Say you had made another statement for setting the looks of *Second* when it gets to 20. Each time you set another statement, it's put at the end of the list, like this:

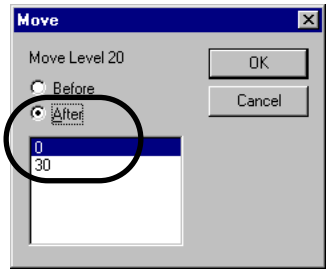


But when you look at the list, the statements are not in order of low to high, based on *Level*. You want to move the statement for 20 after the one for zero and before the one for 30.

Here's what to do:

1. Right-click on *Level* 20 in the list. A short pop-up menu will appear. Click on *Move*.

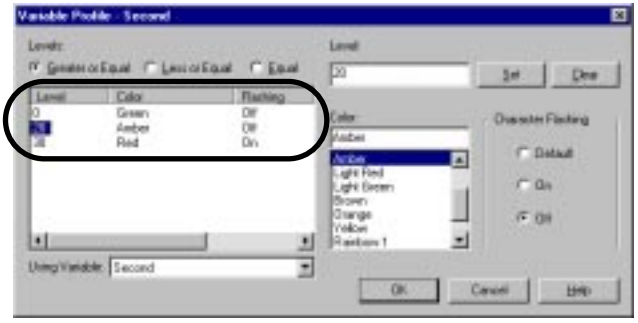
2. Another window will appear. Click on *After* and leave zero highlighted. Then click *OK*.



NOTE

Changing the sequence of the list statements does not change their effect. It just gives an ordered list for ease of understandability.

3. The result is an orderly sequenced list.



Example 6 — Displaying data from an Excel spreadsheet

You can include information from a spreadsheet in a message.

You will need to run the following Smart Alec components and log in as user ÒAlecÓ to use this example:

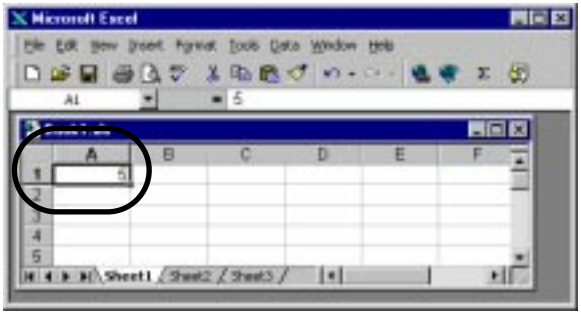
- *Message Server*
- *Editor*
- *Variable Manager*
- *Microsoft Excel*
- *Alpha SA Protocol Converter*
- *Device Driver - Wired*
- *Administrator* (wherever authorization is done)

In the spreadsheet:

1. Set up the spreadsheet as needed. For this example, just open a new Excel spreadsheet. In cell A1, type Ò5Ó and press the Return key. Save the spreadsheet as ÒBook1.xlsÓ.

NOTE

Always be sure to have the spreadsheet open when including its data in a message and running that message.



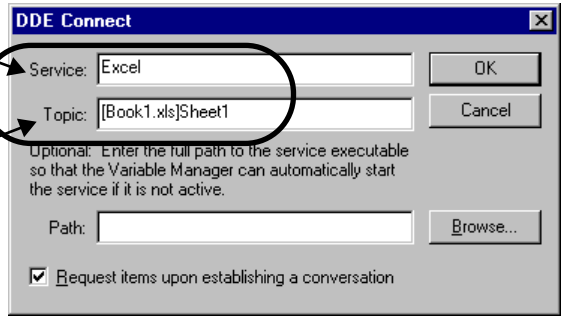
In Variable Manager:

2. Choose *Connect* from the *DDE* menu.

3. Specify the *Service* for this spreadsheet (ÒExcelÓ, for Microsoft Excel) and the *Topic* (e.g., Ò[Book1.xls]Sheet1Ó). Click *OK*

The *Service* identifies the software application where the data is coming from.

Here, the *Topic* identifies the specific spreadsheet you want and the specific sheet within that spreadsheet. Always identify both the spreadsheet and the sheet.



NOTE

Cell A1 in an Excel spreadsheet is referred to as cell "r1c1" (or "R1C1"). This refers to "row 1, column 1."

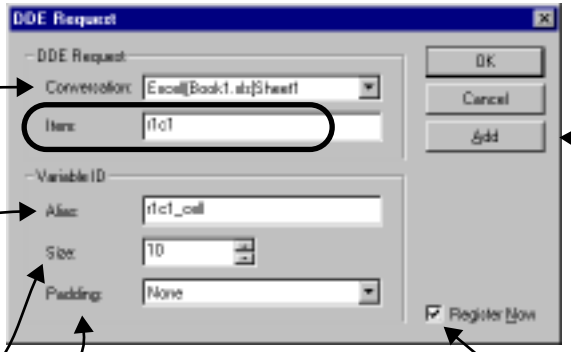
4. Specify the *Item* you need (e.g., the name of the spreadsheet cell, in this example Òr1c1Ó). You can provide an *Alias* (meaningful name) here also. Specifying the *Service, Topic,* and *Item* makes the cell data available to Smart Alec. Click *OK*.

The *Conversation* is a combination of *Service* and *Topic.*

The data is identified by its *Alias* in Smart Alec. (The *Alias* defaults to the *Item* name if you don't put one in.)

Size sets the maximum number of characters to be allowed for this item. If the size is not large enough, the data may be ignored in the message.

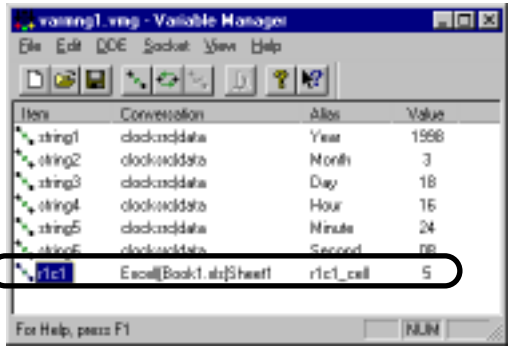
Padding can fill in missing spaces automatically if the number of characters is less than the maximum size. This is helpful when there are columns of data in a message.



You can add more than one *Item* by clicking *Add.*

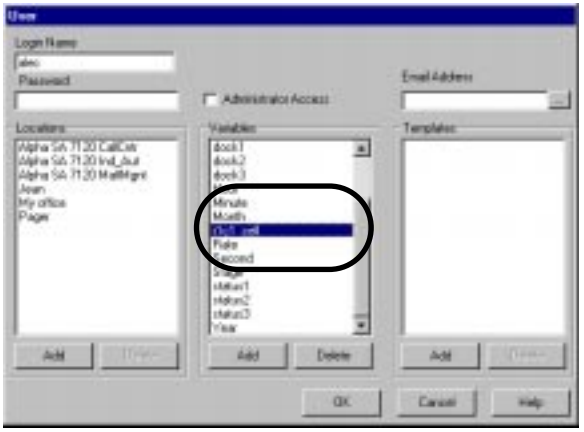
Leaving *Register Now* checked makes the data available in the *Administrator* so the data can be assigned for access by users. Once users have access, they can use the data with messages. If registered, the data counts toward the number of licensed variables. If not registered, the data is only available for purposes of testing a DDE connection.

5. YouÛll see the *Item* Òr1c1Ó listed.



In the Administrator:

6. You must be authorized to use the variable data. Generally, this will be done by your Smart Alec administrator.

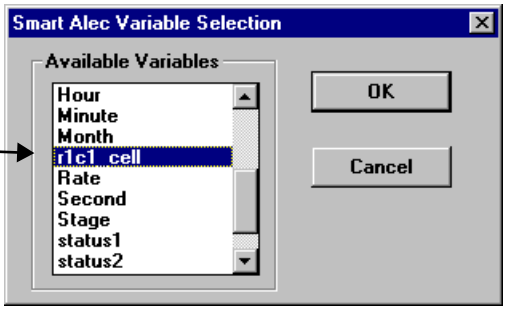


In Editor:

7. In *Editor,* open a new message. Type ÒCell A1 data: Ó, with a space at the end. Then choose *Options* > *Variables.*

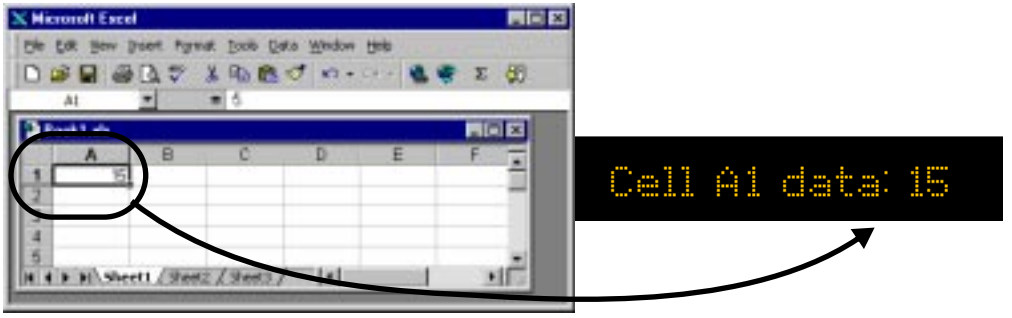
8. Highlight *r1c1_cell* in the list, and click *OK.*

If *r1c1_cell* does not show in the list, you probably are not yet authorized to use it. See step 6 above.



9. Submit the message. It should look like the one shown here.

10. Change the spreadsheet data, and the message changes.



Example 7 — Using sockets to get data

There are two ways to get data into Smart Alec. One uses DDE, as in ÒExample 6 Ñ Displaying data from an Excel spreadsheetÓ on page 54. The other uses socket communications, most commonly with TCP / IP. Socket usage allows Variables to be registered, sent, and updated from other applications that do not use DDE and / or other computers. Socket communications can be used by programmers to integrate software, such as warehouse management systems, with Smart Alec.

This example shows how to use data from applications using sockets.

In Variable Manager

1. Select *Socket* > *Open*.

2. The *Open Socket* window displays the *IP address* it found for this computer and the default *Port* number (1069). The *Port* number in *Variable Manager* must agree with the number identiÞed in the sending application. You can change the *Port* numbers, but they must agree. Click *OK*.

In the sending application

3. Supply the IP address and the default *Port* number (shown in step 2) for the *Variable Manager* computer and open a conversation to the *Variable Manager*.

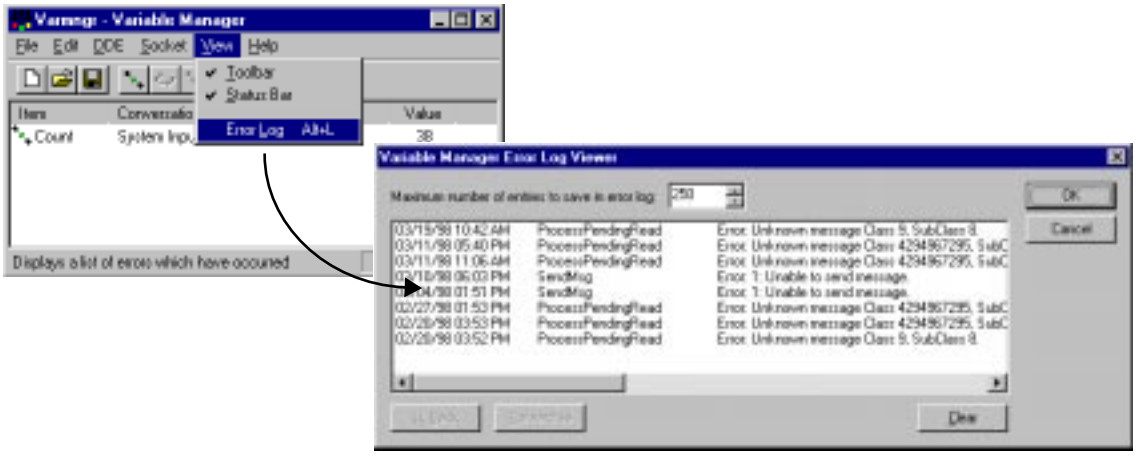
NOTE: Sending application processing is beyond the scope of this manual. A document (**System Integration Input**

Interface Developer's Reference PN 9709-2029) is available for application developers' reference.

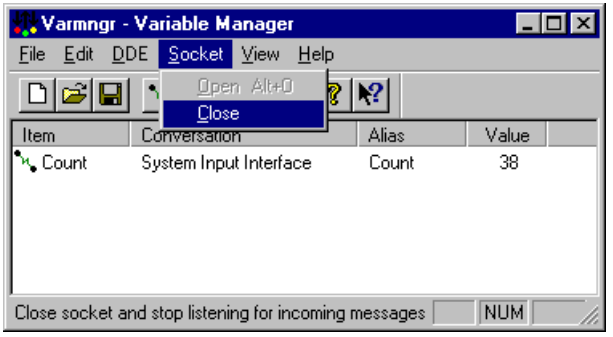
4. Start and stop submitting data as needed in the sending application.

In Variable Manager

5. *Variable Manager* can send back status messages.
6. Error messages are logged in *Variable Manager's Error Log*. Select *View > Error Log*.



7. When you no longer need the data from the sending application, select *Socket > Close*.



Using template messages

A template is a blueprint or a skeleton of the text, formatting, and submission options or properties of a message.

There are two ways to use a template message:

- A personal template message which can be used from the *Editor* so that you start with one basic message each time rather than recreating a message over and over
- A template message which can be merged with a Þle of text (created outside of Smart Alec) to send a complete message

Example 1 — Creating a template message to run from Editor

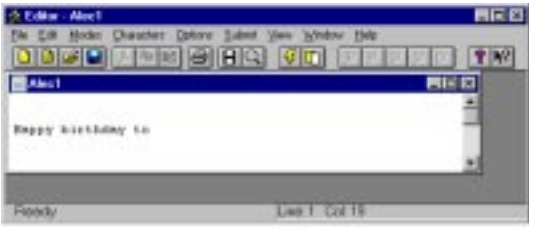
This example creates a message that contains both text that does not change and text that will change periodically. The advantage is that you can run the message and supply just the text that changes without worrying about the text that does not change. You donût need to create similar messages over and over.

You need to run the following Smart Alec component and log in as user ÒAlecÓ to use this example:

- *Editor*

1. In the *Editor*, choose *File* > *Create New Template*.

2. Type ÒHappy birthday toÓ, with a space at the end.

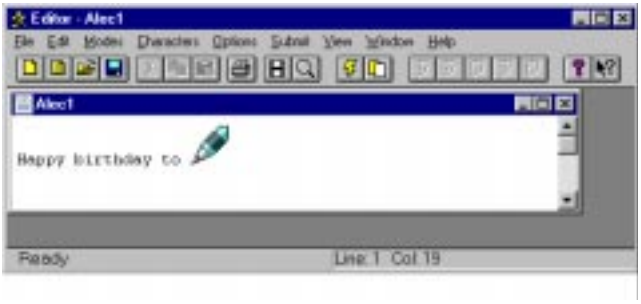


3. From the *Options* menu, choose *SA Text Marker*.

4. Leave the *Field Number* as 1. Type ÒBirthday personÓ in for the *Label*.

The value of the *Field Number* here coordinates with the sequence of the fields in a text file which can supply the values. For further explanation, see Template Examples 3, 4, and 5, and “Appendix P: Formats of ASCII-delimited files” on page 125.

5. The message now looks like this:

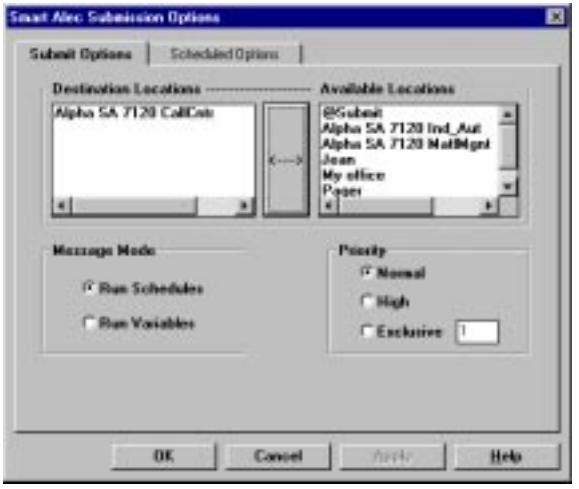


6. Hint: To see what an icon in the message stands for, place the cursor over (or just to the left of) the icon and then press the right mouse button. The explanation shows in the status bar.

A *Text Marker* acts like a placeholder in a message.

NOTE: The template message must have at least one *SA Text Marker*.

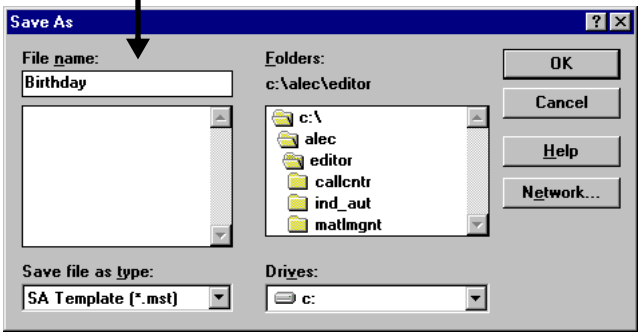
7. Choose *Submit > Setup Options* and select a *Destination Location.* For this example and the next, choose a sign location, not pager or email.



8. Choose the *Scheduled Options* tab and set the *Duration* for the message to 30 minutes. Click *OK*.

9. Choose *File* > *Save.* Editor displays the prompt shown here. Click *No* for now. Give it a filename of "Birthday" and click *OK*.

Refer to "Example 8 — Setting who can use the message" on page 79 for more explanation of this prompt.



10. Now the template message is ready to use. See "Example 2 — Running the template message in Editor".

Example 2 — Running the template message in Editor

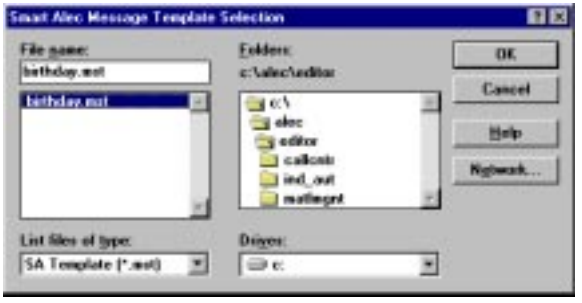
This example shows a simple way to run the message created in Example 1.

You need to run the following Smart Alec components and log in as user ÒAlecÓ to use this example:

- *Editor*
- *Message Server*
- *Device Driver - Wired*
- *Alpha SA Protocol Converter*

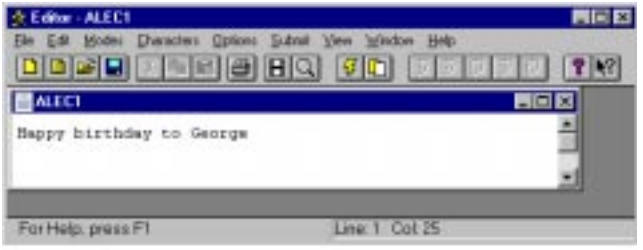
1. In *Editor,* choose *File > New Template Msg.*

2. Choose *birthday.mst*.

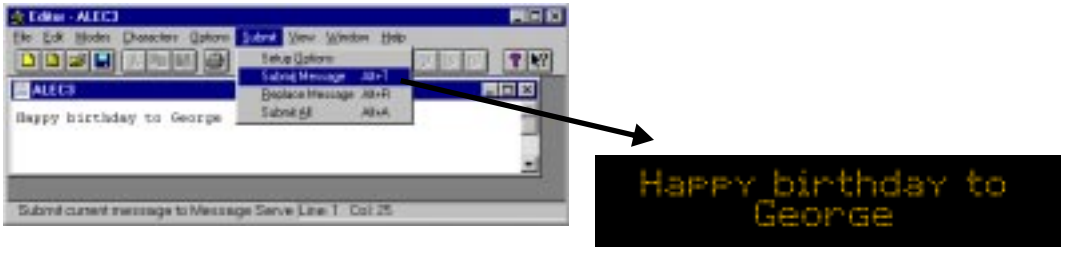


3. The message opens up and looks very much like any other message, except that the cursor is placed with the Text Marker, which is highlighted to be replaced.

4. Without moving the cursor, type ÒGeorgeÓ. Notice how the Text Marker disappears when you start to type.



5. Choose *Submit > Submit Message.* The message on the sign will look something like this:



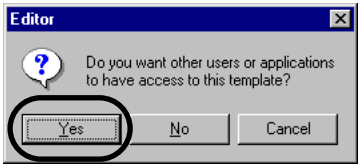
Example 3 — Creating a template message to merge with a text file

This example creates a template message to list today's meeting schedule. This message will have three *Text Markers*: time, room number, and group. This example and template message are to be used in conjunction with "Example 4 – Creating a text file to merge with a message" on page 68 and "Example 5 – Running the template message: merge text and template" on page 69.

You need to run the following Smart Alec component and log in as user "Alec" to use this example:

- *Editor*

1. Create a *New Template.*
2. Type "Today's meeting: ", with a space at the end.
3. Add a Text Marker and label "Meeting time".
4. Type " Room ", with a space at the beginning and end.
5. Add a Text Marker and label "Room number".
6. Type ": ", with a space at the end.
7. Add a Text Marker and label "Group".
8. Set the destination and the time to run it.
9. Choose *File > Save.*
10. When *Editor* asks if you want other users or applications to have access, choose *Yes.*



11. Save the template as ÒMeeting1Ó. The extension of Ò.mstÓ will be put on for you. It is saved in the *Server \ Templates* directory.

12. The template message should now look like this:

13. The template message is now available for the Smart Alec administrator to grant access to individual users.

Example 4 — Creating a text file to merge with a message

This example creates a text Þle to be used in conjunction with ÒExample 3 Ñ Creating a template message to merge with a text ÞleÓ on page 66 and ÒExample 5 Ñ Running the template message: merge text and templateÓ on page 69. This text Þle supplies variable data for the message.

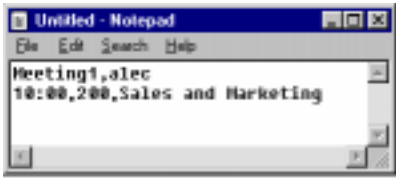
You need to run the following to use this example:

¥ *Notepad* (Windows>Start>Programs>Accessories> Notepad)

NOTE: The format of the text Þle in this example conforms to the ÒBasic DAQ FormatÓ as described in ÒAppendix P: Formats of ASCII-delimited ÞlesÓ on page 125.

WeÕll create a text Þle to Þll in the blanks when the message is run:

1. In *Notepad*, type ÒMeeting1,alecÓ with no spaces before or after the commas. Press the *Return* key.
2. Type Ò10:00,200,Sales and MarketingÓ with no spaces before or after the commas.
3. The *Notepad* Þle should look like this:



4. Save the Þle as ÒMeeting1Ó. The extension of Ò.txtÓ will be put on for you. You can save it anywhere you wish.

Example 5 — Running the template message: merge text and template

NOTE
The ASCII File Input Interface application must be running to use ASCII-delimited files.

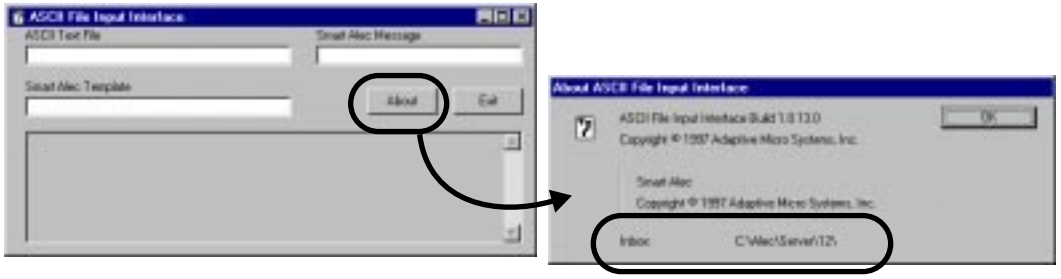
Smart Alec allows you to merge a text Þle with a predeÞned template. The templates are created in the *Editor* with blank Þelds deÞned as SA Text Markers and the ASCII-delimited Þle provides the information for the *SA Text Markers* in the template.

You need to run the following Smart Alec components and log in as user ÒAlecÓ to use this example:

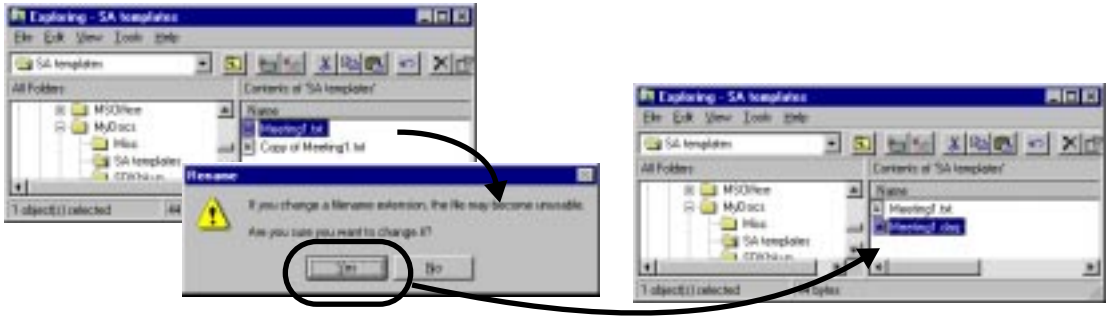
- *ASCII File Input Interface*
- *Message Server*
- *Device Driver - Wired*
- *Alpha SA Protocol Converter*

It works this way:

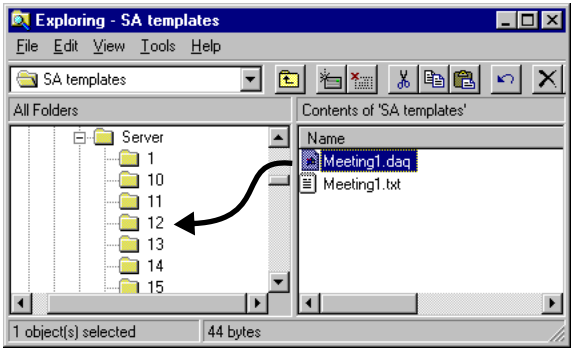
1. You must have created a template with *SA Text Markers.* (See ÒExample 3 Ñ Creating a template message to merge with a text ÞleÓ on page 66.)
2. You must have created a text Þle for the template SA Text Markers in an ASCII- delimited Þle format. (See ÒExample 4 Ñ Creating a text Þle to merge with a messageÓ on page 68.)
3. Bring *ASCII File Input Interface* to the front. Click the *About* button. Note the *Inbox* shown. You may want to write down the directory name. Click *OK*, then minimize *ASCII File Input Interface.*



4. In *Windows Explorer*, make a copy of the *Notepad* Þle in the same directory. Rename it to ÒMeeting1.daqÓ. Explorer will warn you about changing the Þlename extension. Choose *Yes* anyway.



5. In *Windows Explorer*, move ÒMeeting1.daqÓ to the inbox directory of the *ASCII File Input Interface* which you noted in Step 3, shown below as C:\Alec\Server\12.



6. The *ASCII File Input Interface* automatically takes the Þle out of this *Inbox* and merges the text for the SA Text Markers with the template. The message is set to run as scheduled, immediately in this example because that option was chosen in *Editor*.
7. The *ASCII File Input Interface* merges the template and the text into a Þle, converts the Þle into an .MSA Þle format, and sends the message to the destination sign.

8. The message on the sign will look something like this:

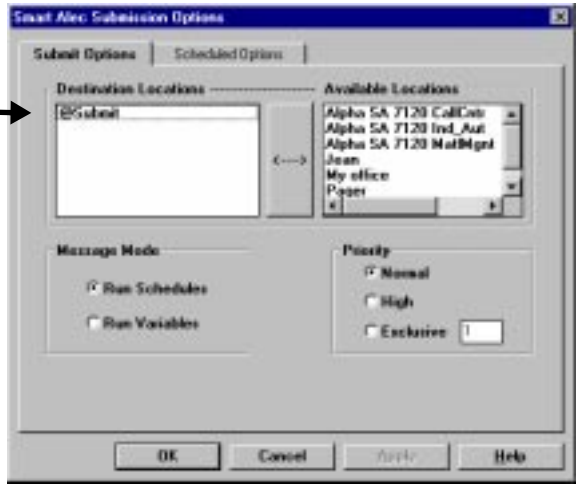
Example 6 — Setting the Location for a template message

Let's say you want to send a template message to different locations depending on other circumstances to be determined only when the message is sent. In this case, you don't want to set a location when you create the template message. You want to set the location when you send the message. This example shows how to do that.

You need to run the following Smart Alec components and log in as user "Alec" to use this example:

- *Editor*
- *Message Server*
- *Device Driver - Wired*
- *ASCII File Input Interface*
- *Alpha SA Protocol Converter*
- *Notepad* (Windows>Start>Programs>Accessories> Notepad)

1. In *Editor,* choose *File > Create New Template.*
2. Type "Meeting in Room ", with a space at the end.
3. Add a Text Marker and label "Room number".
4. Choose *Submit > Submit Options*. At the top of the list of *Available Locations* is "@Submit". Move this to the *Destination Locations* list. "@Submit" must be the only item in the *Destination Locations* list.

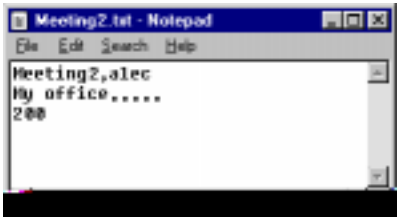


Using *@ Submit* means that the Location will have to be set either when the message is submitted from the *Editor* or in a text file with the ASCII File Input Interface.

5. Click on the *Scheduled Options* tab. Leave *Immediate Mode* checked and the duration as 2 minutes. Click *OK.*
6. Choose *File* > *Save.* Give other users access.
7. Save the Þle as ÒMeeting2Ó.
8. Open a new Þle in *Notepad*. On the Þrst line, type ÒMeeting2,alecÓ for the Þlename and user. On the next line, Type the destination name that you wish, followed by Þve commas. On the last line, type Ò200Ó. The Þle should now look like the picture below.

NOTE: The format of the text Þle in this example conforms to the ÒExtended DAQ FormatÓ as described in ÒAppendix P: Formats of ASCII-delimited ÞlesÓ on page 125.

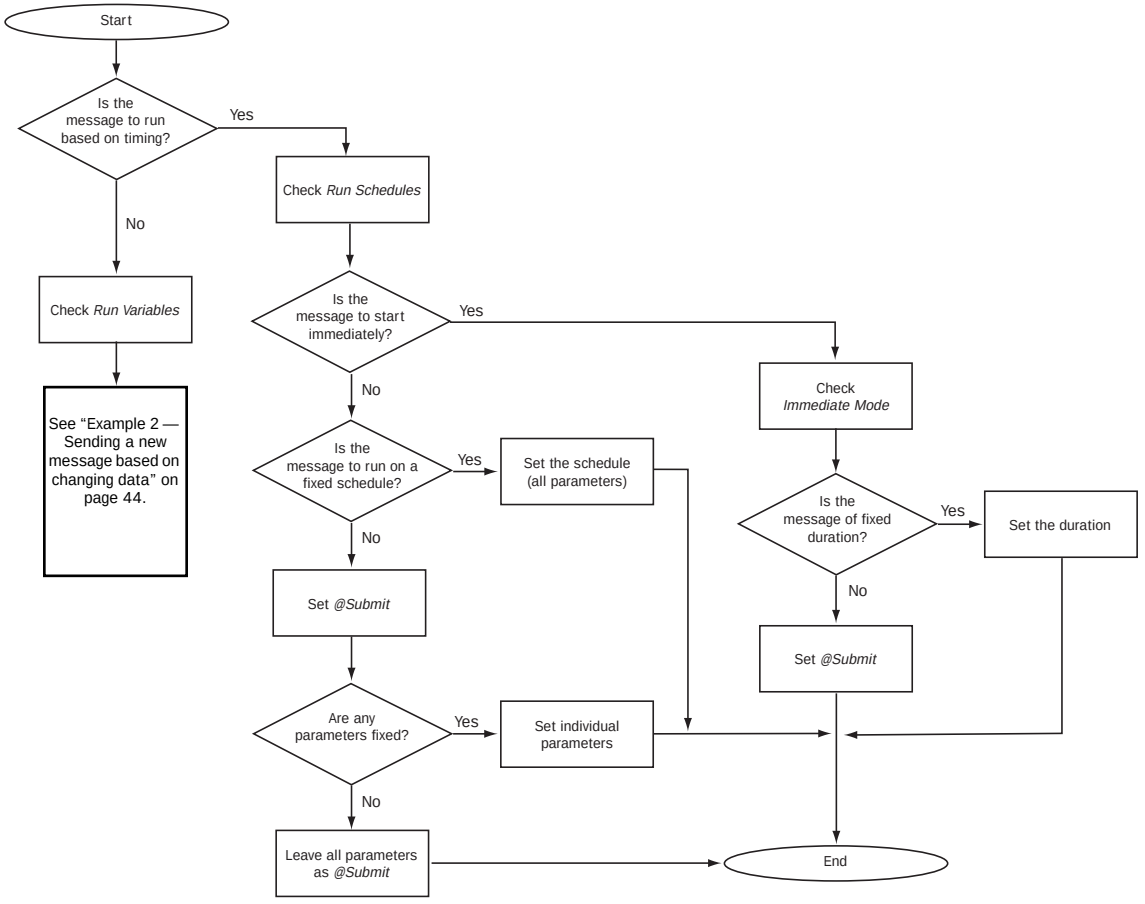
The commas act like placeholders. You don't need to fill in all the fields, but you must have all five commas. See "Appendix P: Formats of ASCII-delimited files" on page 125 for details.



9. Now follow ÒExample 5 Ñ Running the template message: merge text and templateÓ on page 69 to send the message. It should look like this:

Example 7 — Setting how and when the message is to start running

You can set the message to start running based on time or based on the value of a variable. The ßowchart below shows all the options.



A message set to run based on time has Þve scheduling parameters which must be detailed: start date, start time, end date, end time, and duration. Any or all of these can be set when the template message is created. They also can be set when the message is run, by using the *@Submit* option.

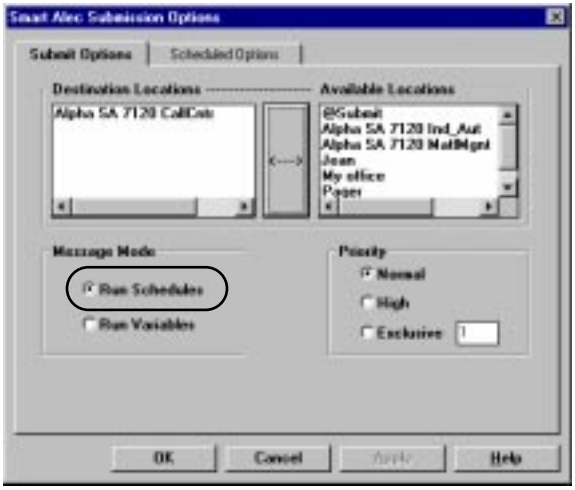
This example shows how to run a message where some parameters will be scheduled and some will be set at the time the message is submitted.

You need to run the following Smart Alec components and log in as user ÒAlecÓ to use this example:

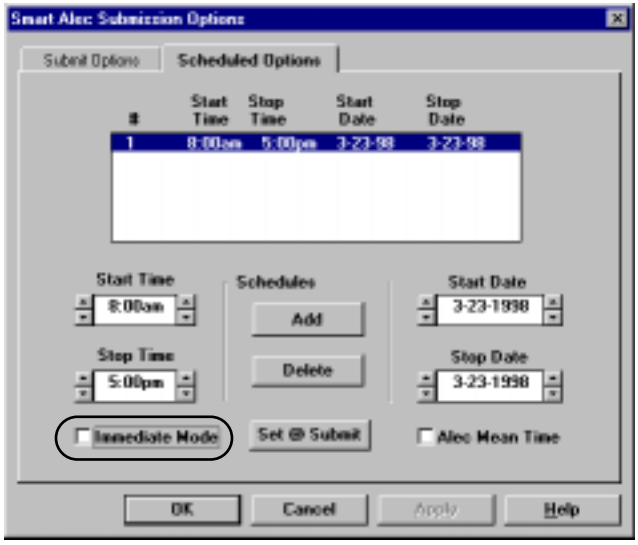
- *Editor*
- *Message Server*
- *Device Driver - Wired*
- *Alpha SA Protocol Converter*
- *ASCII File Input Interface*

Assume you have two main work areas: Production and OfÞce. Production works from 6:00 AM to 2:30 PM, while the OfÞce works from 8:00 AM to 5:00 PM. For each group, you have created a template message like ÒMeeting1Ó in ÒExample 3 Ñ Creating a template message to merge with a text ÞleÓ on page 66. Each group has meetings from time to time, but not every day. You want to set the message to run at the times when people are at work and only when there are meetings pertinent to each group. WeÔll go through setting up the message for Production.

1. In *Editor,* open the ÒMeeting1Ó template message. Select *Submit > Setup Options.* Since this will be based on time rather than Variables, select *Run Schedules* for *Message Mode*.

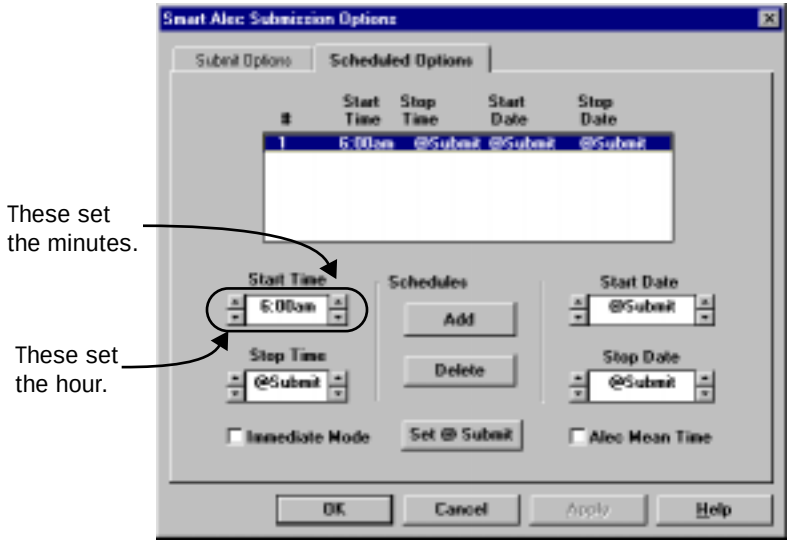


2. Click on the *Scheduled Options* tab. We want to set the start time of the message based on Production's work hours, so click on the *Immediate Mode* checkbox so that it is not checked.



3. Click *Set @ Submit.* This sets all the parameters to be determined at the time the message is sent. We'll adjust this in the next step.

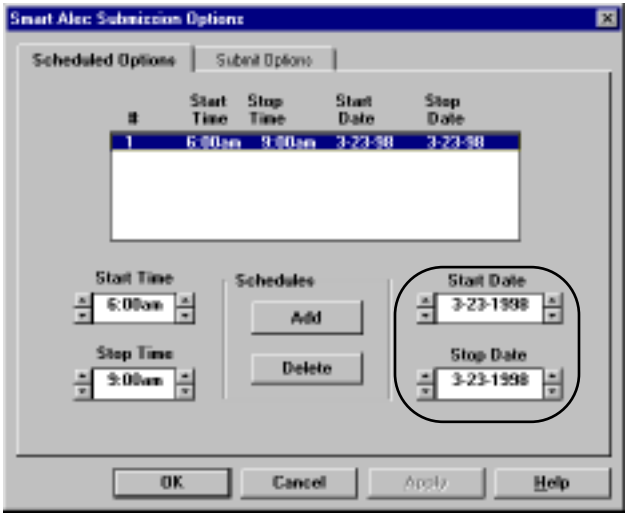
4. In the *Start Time* box, click on the up and down arrows to set the time to 6:00 AM. Leave the *Stop Time*, *Start Date,* and *Stop Date* boxes set to *@Submit.* Click *OK*.



5. Save and close the template message.
6. Choose *File > New Template Msg.* Click on ÒMeeting1Ó and then *Select*.

7. For the Þrst prompt, type Ò8:00Ó. Tab to the next prompt and type Ò101Ó. Tab to the last prompt and type ÒHealth planÓ.
8. Choose *Submit > Submit Message.*

9. Now you need to set those parameters that were not set earlier, namely the *Stop Time*, *Start Date,* and *Stop Date.* Again using the up and down arrows, set the *Stop Time* to one hour after the meeting time, in this case 9:00. Click once on either of the up arrows for the *Start Date* and *Stop Date* to set them to today's date.



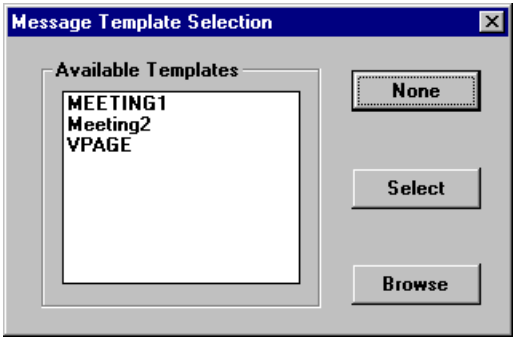
10. Select *OK.* The message is submitted and will run from 6:00 AM to 9:00 AM today.

Example 8 — Setting who can use the message

1. When you save a template message, the prompt shown below is displayed.

   - ¥ Choose *No* if the template will only be used by you, or if you want to use the template message as a message whose Þelds will be entered in the *Editor*.
   - ¥ Choose *Yes* if you want other users to be able to use the template, or if you want the ability to merge text for *SA Text Markers* from other applications.

2. In the *Administrator*, if you chose *Yes* in step 1, any other Users must be authorized for the template.
3. When a User selects *File* > *New Template Message*, a list of authorized templates appears to choose from.



4. Highlight one and click *Select* to use it for a message.

Example 9 — Using repeating records

You need to run the following Smart Alec components and log in as user ÒAlecÓ to use this example:

- *Editor*
- *Message Server*
- *Device Driver - Wired*
- *Alpha SA Protocol Converter*
- *ASCII File Input Interface*

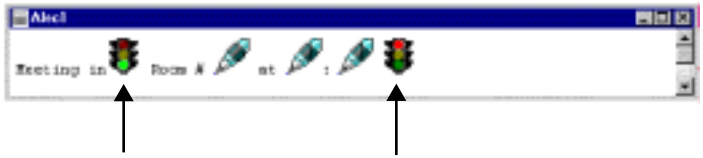
This example shows how to use the *Begin Repeat* and *End Repeat* feature whenever there are multiple records to supply values for a template message. Here there are several meetings scheduled.

NOTE: The format of the text Þle in this example conforms to the ÒBasic DAQ FormatÓ as described in ÒAppendix P: Formats of ASCII-delimited ÞlesÓ on page 125.

1. In *Editor*, create a template with ÒRoom numberÓ, ÒTimeÓ, and ÒGroupÓ:

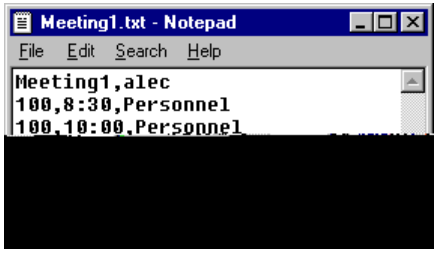
2. Place the cursor in the message at the beginning of the text to be repeated. From the *Options* menu, choose *Begin Repeat*.

3. Place the cursor at the end of the text to be repeated, then from the *Options* menu, choose *End Repeat*.



Begin Repeat icon End Repeat icon

4. In a new *Notepad* Þle, on the Þrst line, type ÒMeeting1,alecÓ with no spaces before or after the commas.
5. On the next lines, type room numbers, times, and groups as below, with no spaces before or after the commas. The *Notepad* Þle should look like this:



NOTE

The *Repeat* function repeats an entire block of characters in a message. However, in the text file, you only supply the values for the text markers.

6. Save the *Notepad* Þle. Make a copy of it. Rename the copy with the extension as Ò.daqÓ. Move the copy to the inbox directory of the *ASCII File Input Interface.*
7. When the text Þle gets merged with the template and sent as a message, it will be displayed as in the following:

    Meeting in

    Room #100 at 8:30: Personnel

    Room #100 at 10:00: Personnel

    Room #200 at 10:00: Sales and Marketing

    Room #201 at 2:00: Executive Conference

Using email

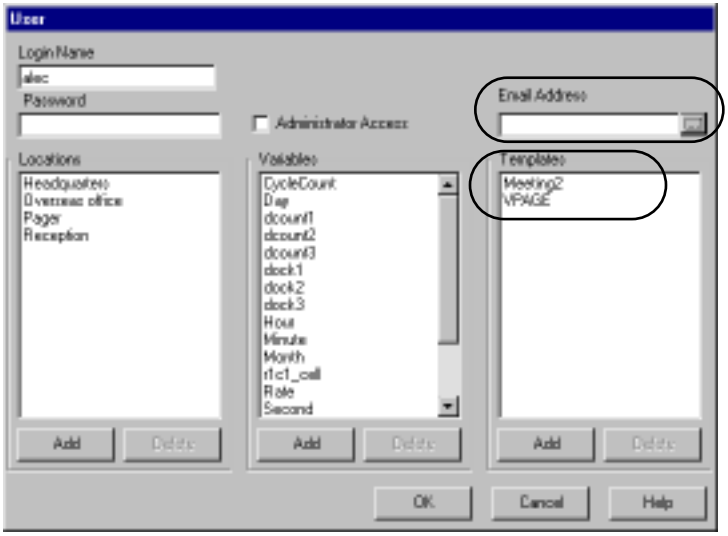
You can use email to send changeable data to Smart Alec so that it can be merged with a template message and sent to a sign or to a pager. For example:

- You can use a template message with just a single text marker to be merged with a block of free-form email text.
- You can have a template message with given text plus several text markers for speciÞc data from email.

Setting up and using email with Smart Alec— the basic process

1. In your email server application, create a user called *Smart Alec*. Since there are a number of email server applications, you will need to refer to your email server documentation for a section about ÒHow to add an email userÓ. Using that information, add a user called *Smart Alec,* or ask your system administrator.
2. In *Editor,* create a template message located on the Smart Alec server. This template will be used for sending email messages to designated locations, either signs or pagers. (See ÒUsing template messagesÓ on page 60 for detailed information about template messages and ÒExample 1 Ñ Displaying an email message on a signÓ on page 83 for an example.)
   - To allow a block of free-form text to be sent to a sign, simply include one text marker Ð nothing else Ð in the template message.
   - For more speciÞc messages, include formatting, text, and text markers as needed.

3. In the *Administrator,* authorize users for email and templates. This is shown in ÒExample 1 Ñ Displaying an email message on a signÓ.



4. Finally, from the email server application, a message can be sent to the email user *Smart Alec* with the name of the template as the subject and the message to be sent in the body of the email. This is also shown in ÒExample 1 Ñ Displaying an email message on a signÓ.

Example 1 — Displaying an email message on a sign

This example shows how to send a message to a sign from an email system using a template message with three text markers.

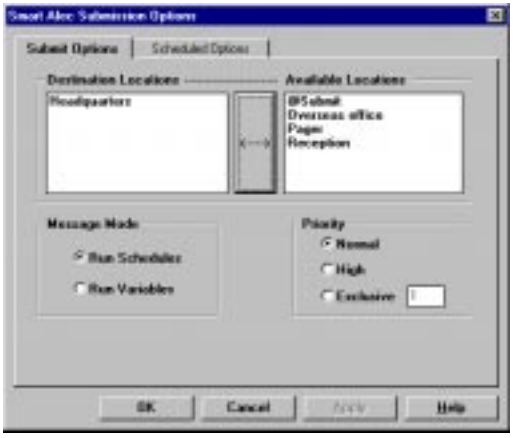
All these components need to be running on the Smart Alec server:

- *Microsoft Exchange* (or your email server application)
- *Email Gateway*
- *Message Server*
- *Editor*
- *Administrator*
- *Device Driver - Wired*
- *Alpha SA Protocol Converter*
- *ASCII File Input Interface*

In Editor

1. Create a new template following ÒExample 3 Ñ Creating a template message to merge with a text ÞleÓ on page 66.

2. Select *Submit* > *Setup Options* and on the *Submit Options* tab, choose a *Destination Location* for a sign. For *Message Mode*, choose *Run Schedules*.

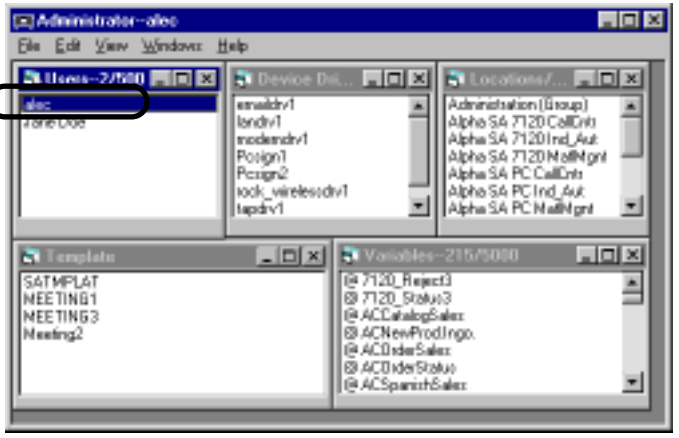


3. On the *Scheduled Options* tab, choose *Immediate Mode* (for sending the message immediately) and set the *Duration* to 1 hour. Click *OK* to save the changes.

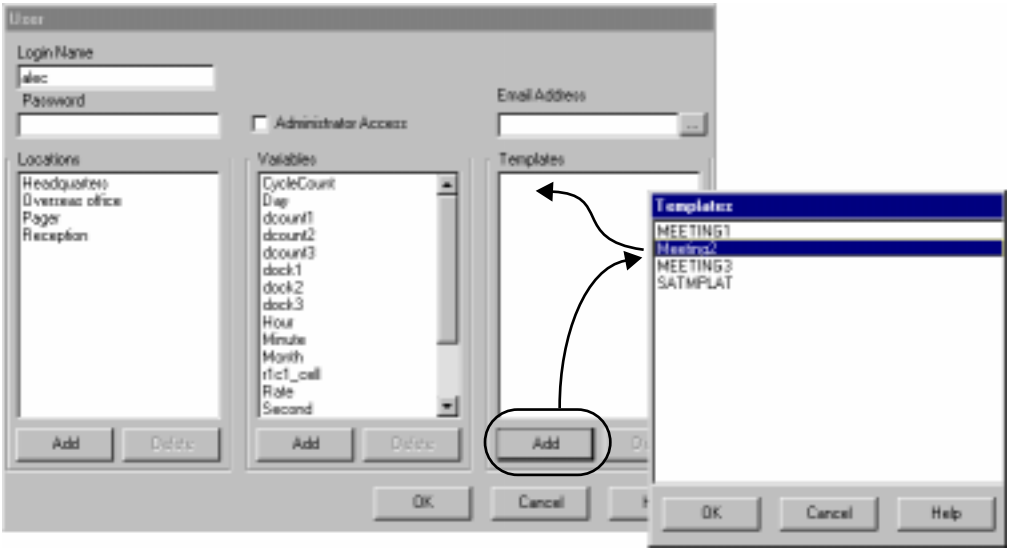
4. Save the template.

In the Administrator

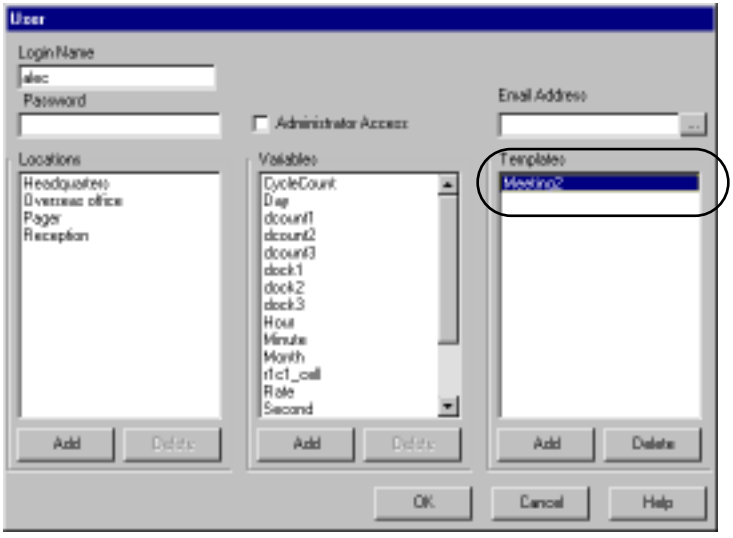
5. Choose any user who is to send email with this template.



6. In that person's proÞle, add the new template. Click *OK*.



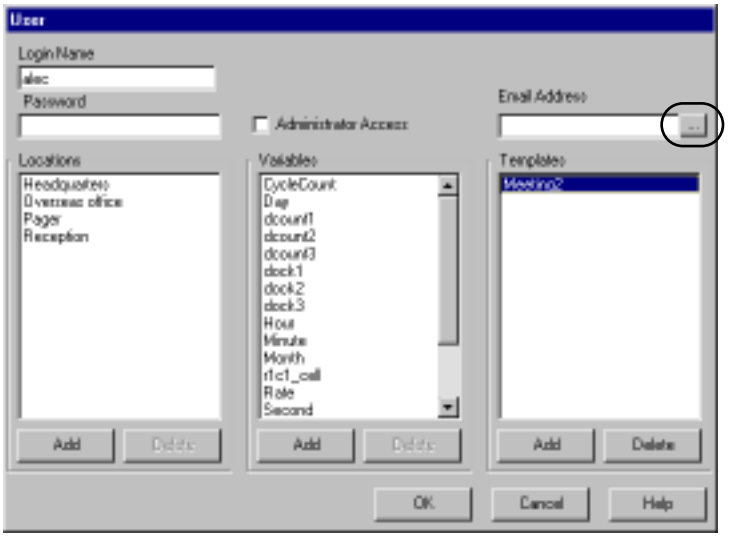
7. This shows authorization for the new template.



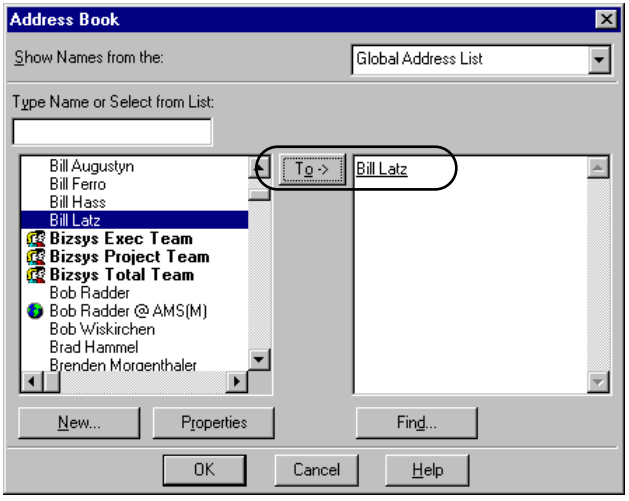
NOTE

This capability is not currently available with Windows NT. See "Appendix Q: How to assign a user's email name in Windows NT" on page 131 for more information.

8. Select the button just to the right of the *Email Address* box.

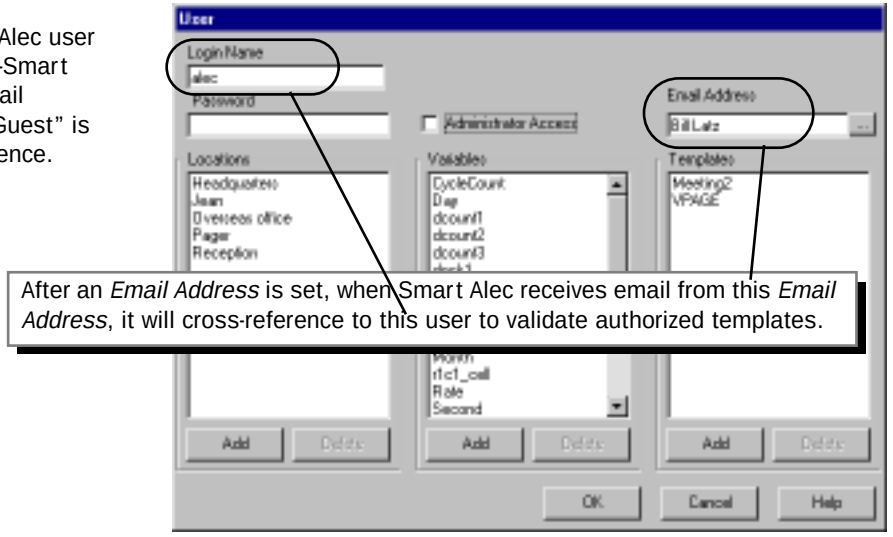


9. This will bring up a list of local email addresses. Choose the address belonging to the user and move it to the right side with the *To-->* button. Click *OK*.



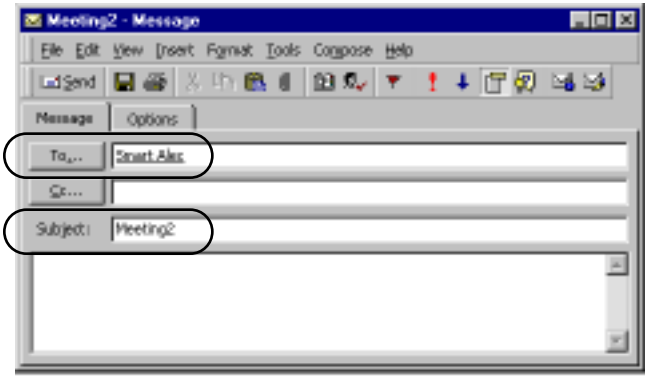
10. The chosen *Local Email Address* will be shown in the *Email Address* box. Click *OK*.

HINT: Create a Smart Alec user called “Guest” for non-Smart Alec users to send email through Smart Alec. “Guest” is the default cross-reference.



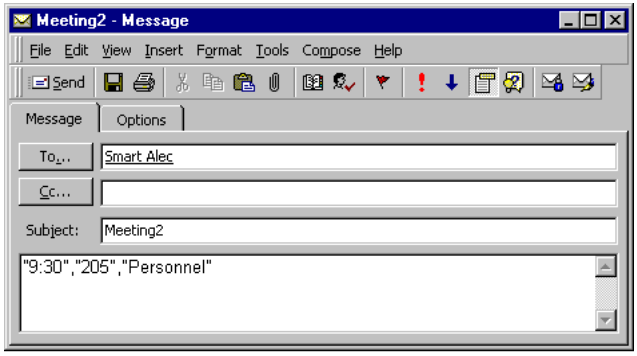
In the email system

11. Open a new email message.
12. For the addressee, type ÒSmart AlecÓ. For the subject, type the name of the template for which data is being supplied, shown in this example as ÒMeeting2Ó.



13. In the body of the message, type the text to be sent. The ÒMeeting2Ó template message includes three text

markers, for meeting time, room number, and group. So type: Ò9:30Ó,Ò205Ó,ÒPersonnelÓ.



- If the template has one *SA Text Marker*, the body of the message will Þll in the *SA Text Marker*. Quotes are optional around the body of the message.
- If the template has more than one *SA Text Marker*, the body of the message must be broken into sections for each of the *SA Text Markers*. Quotes and commas are used to break the body of the message into sections.

14. Send the email message.

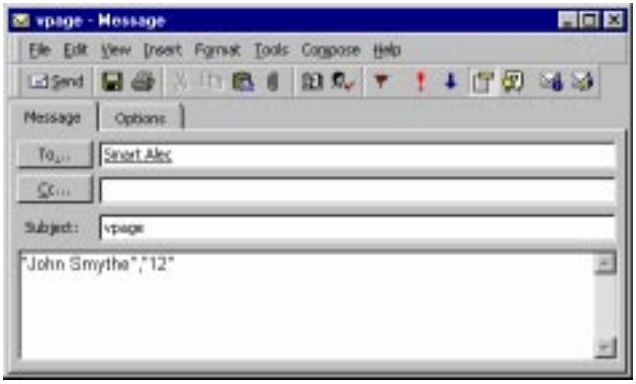
In Smart Alec

15. The message displayed in this example will look something like this:

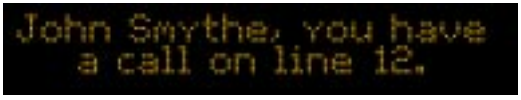
Example 2 — Displaying a visual page on a sign

1. You could create this template message:

2. Then send this email message:



3. The resulting message on the sign would be:



Appendices

Appendix A: Smart Alec system overview

Big perspective of Intelligent Messaging

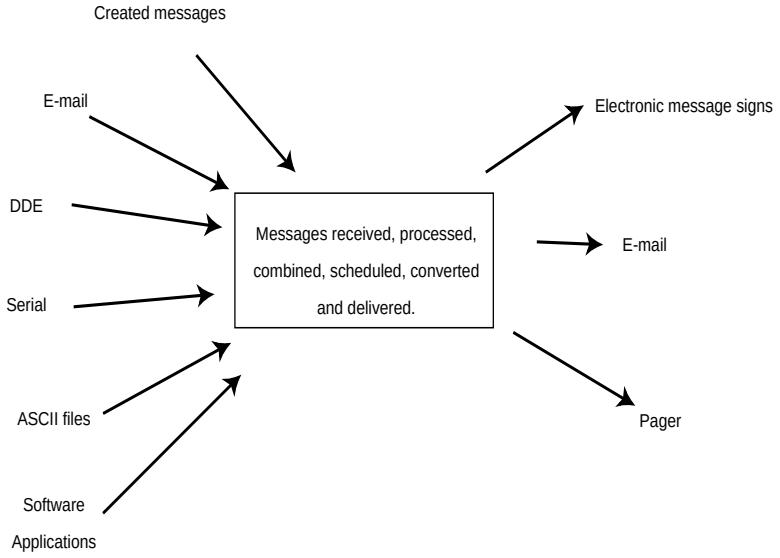


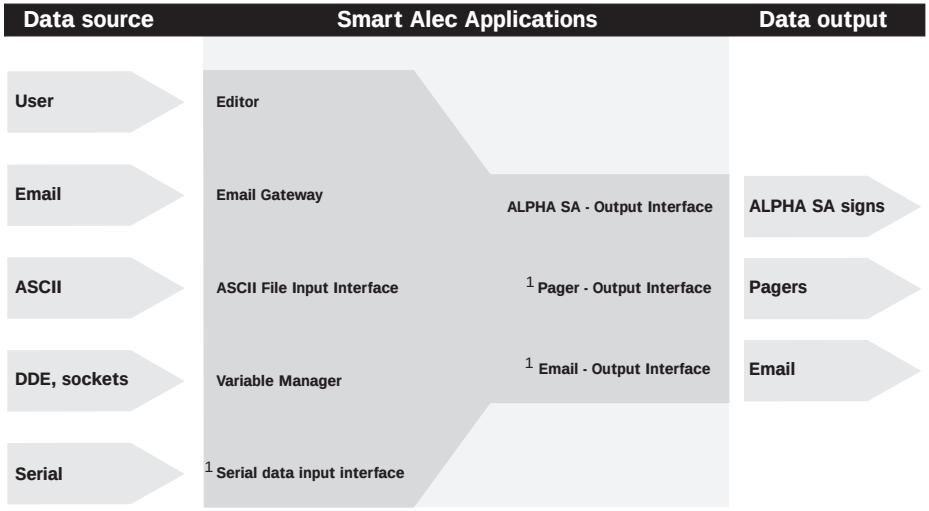
Figure 1: Big picture of Intelligent Messaging

ÒIntelligent messagingÓ allows you to:

- ¥ send and receive messages
- ¥ deÞne messages
- ¥ schedule messages
- ¥ determine where messages go
- ¥ manage message ßow

Intelligent messaging systems can acquire message input from many software systems. They accept and process input, coordinate data, and send messages out as needed. Message output goes to software systems or hardware devices to deliver the right message to the right locations at the right time using the right communication methods.

User perspective of Smart Alec



[1] This is an option that can be purchased separately.

Figure 2: User perspective of Smart Alec

Smart Alec overview

Smart Alec can acquire information from email, ASCII, serial, and DDE and socket data sources, as illustrated above. Messages can also be created directly for input to Smart Alec through its Editor. Variable data is acquired and handled by the Variable Manager. Variables can be embedded in messages in real time and can also be used as triggers for messages.

At the heart of the system is the Message Server, which accepts and processes input, coordinates data, and sends it as messages to the output communication devices, such as ALPHA SA displays and alphanumeric pagers.

To get a message out to a given device, the message must be converted to a format which the device understands. This is done by protocol converters which convert signals from the Smart Alec system and send the signals to device drivers. These device drivers further interpret and process the signals and send them to the Þnal communication devices.

Technical perspective: acquire, process, distribute

Acquisition of data (“Data source”)

Input can come from any of many data sources, including:

- MAPI-compatible email Þles, such as Microsoft Exchange
- ASCII-delimited Þles, such as Schedule+ or Goldmine Day Planner
- Serial data stream processors, such as WinWedge or Dynacomm
- DDE-capable applications, such as Wonderware’s InTouch or Microsoft Excel
- Socket communication applications
- The Editor, by allowing you to provide text for messages
- Smart Alec-speciÞc MSA-compatible Þles

Processing the messages (“Smart Alec applications”)

Processing is accomplished through software components of the Smart Alec system.

- The Administrator program allows you to set levels of security and access to locations, variables, and templates.
- The ASCII File Input Interface merges templates with ASCII data from email and ASCII Þles.
- The Message Server is responsible for delivering messages to the proper locations at the proper time. It processes all messages, displays a log of all current messages, and sends messages as required.
- The Variable Manager manages data to be used as variables in messages, makes those variables available for use in messages, displays the list of variables linked to the system, and works with the Message Server to start and stop messages when variables pass pre-deÞned thresholds.
- The Message Viewer lets you monitor and delete messages.

Distribution of messages (“Data output”)

Output from the Message Server is converted to formats appropriate to each hardware communication device. Protocol converters, such as an ALPHA SA or pager protocol converter, transform each message into the proper format for the necessary

device driver(s). The device drivers, such as a modem or a wireless transmitter, process the signals and send them to the Þnal communication devices. The actual communication devices, such as an ALPHA SA display or a pager, display any messages.

Watching Smart Alec in operation

There are several user dialog windows whereby you can watch Smart Alec process and deliver messages:

- The Variable Manager allows you to request speciÞc variables from other programs and watch the values of the variables as they change in the system.
- The Message Viewer shows details of any active or pending messages. These include: owner, run period, message contents, variables used, destination location(s). You can also delete messages here.
- The Message Server's Transaction Log displays active, pending, or complete messages, as well as identifying and processing characteristics.
- Each protocol converter shows the number of messages and variables it has processed, and can show additional details of their usage for a given output device.
- Each device driver shows settings, number of messages processed, and its status for a given output device.

So, with windows to the Smart Alec processing as described above, you can watch a message as it comes into the system and is processed by the Message Server, the protocol converter and the device driver. Then you can see each message as it is displayed.

Appendix B: Smart Alec computer requirements

Make sure your hardware system Þts these requirements:

- Personal computer, IBM or compatible
- CD-ROM drive
- Mouse
- VGA or SVGA color monitor

In addition, the following is recommended:

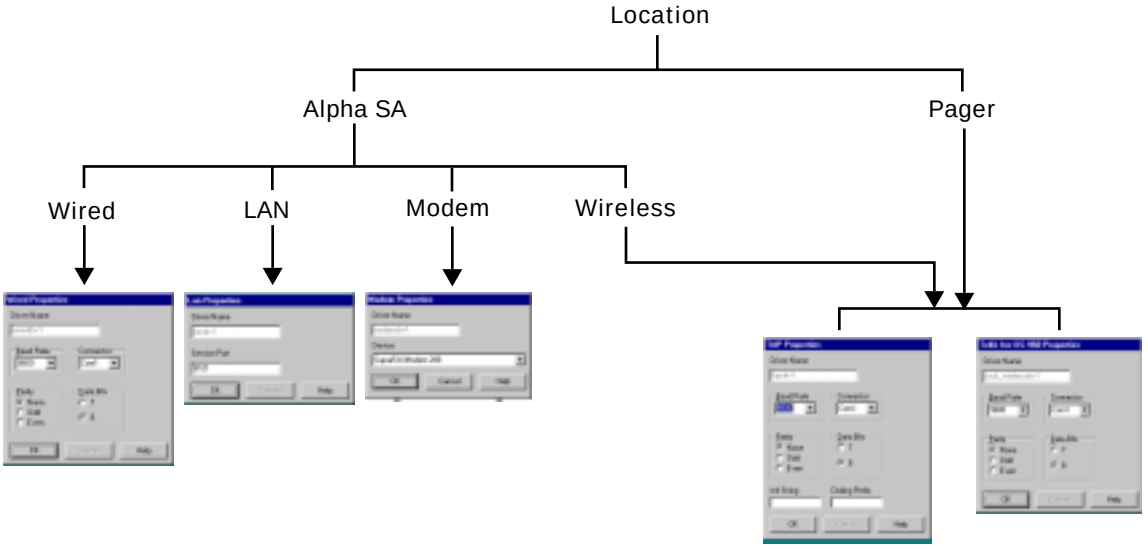
Operating system (server)	Microsoft Windows 95 with 32 MB RAM, or Windows NT Workstation 4.0 with 32 MB RAM
Operating system (client)	Microsoft Windows 95 with 16 MB RAM, or Windows NT Workstation 4.0 with 32 MB RAM
Processor, minimum	Pentium 125 MHz
Hard disk storage space	25 MB

Appendix C: Device Driver information

A Device Driver is an application that communicates with an output device, such as a modem, pager, LAN, etc.

Every Location uses a Device Driver. A Device Driver must be properly set up in order for the Smart Alec Server to send information to a Location.

The Þrst time the Administrator application is used, you will be asked to verify the properties of each Device Driver.

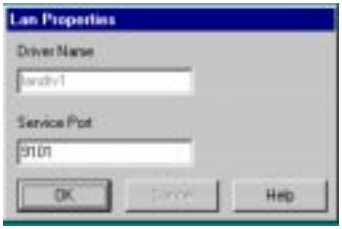


Property	Format or valid values
Baud rate	9600
Connector (COM port)	Com1, Com2, Com3, Com4
Parity	None, odd, even
Data bits	7, 8
Service port	Port number of print/terminal server on a LAN, e.g., “9101”.
Init/Initialization string	Group of commands (e.g., “AT,”) for modem set-up; sent to the modem before the number is dialed.
Dialing prefix	Sequence to dial to get to an outside phone line, e.g., “9,”.
Phone number	Standard telephone number. May include formatting characters such as commas, parentheses, or dashes.

Table 2: Device Driver Properties

Device Driver			Property	Value
Wired			Baud Rate	
			Connector (COM port)	
			Parity	
			Data Bits	
Wireless	Tekk Inc KS-960		Baud Rate	
			Connector (COM port)	
			Parity	
			Data Bits	
	TAP		Baud rate	
			Connector (COM port)	
			Parity	
			Data bits	
			Init string	
			Dialing prefix	
			Phone number	

Table 2: Device Driver Properties

Device Driver		Property	Value
Modem		Device	
LAN		Service Port	

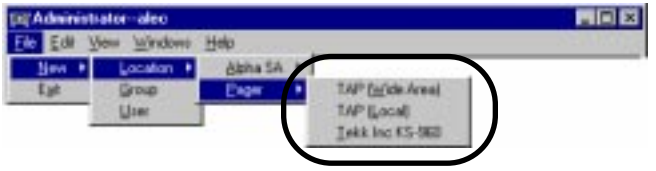
Appendix D: Location properties

A Location is a message destination. A Location may be composed of one or more ALPHA SA signs or a pager. Every Location has a Device Driver associated with it (see ÒAppendix C: Device Driver informationÓ on page 96).

Locations are created and set up in the Administrator. Basically, there are three types of Locations Ñ ALPHA SA, Pager, and Email:

Types of ALPHA SA Locations:

* Types of Pager Locations:



* Pager is an option that must be purchased from Adaptive Micro Systems.

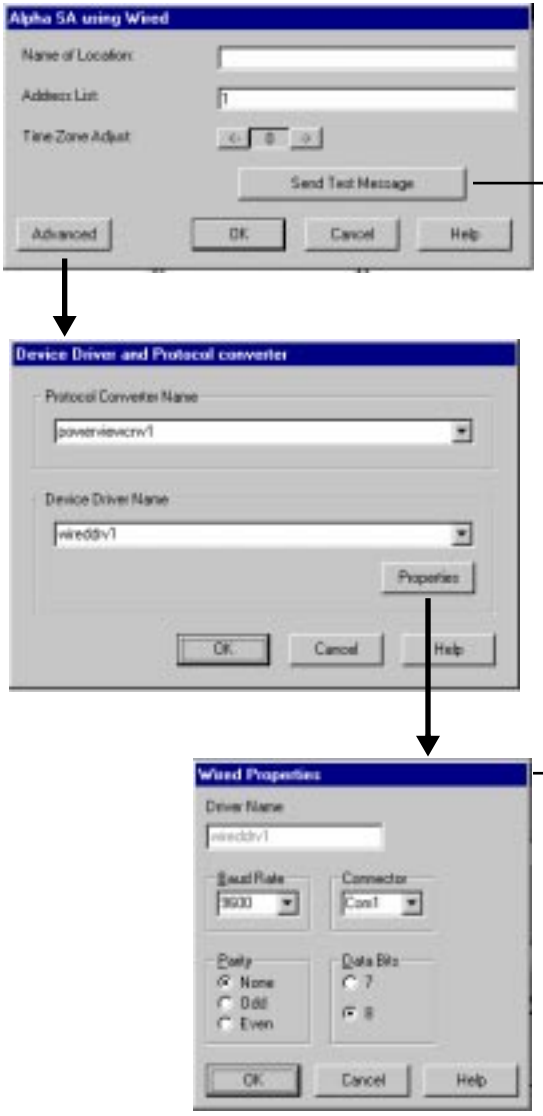
* Email Locations:

* Email is an option that must be purchased from Adaptive Micro Systems.

ALPHA SA Wired properties

This type of Location is composed of one or more ALPHA SA signs that are connected to a Server (or Client) computer that is running the Wired Device Driver.

In the Administrator, select *File* > *New* > *Location* > *Alpha SA* > *Wired*:



Select *Send Test Message* to verify that the devices at this Location can receive messages.

These are the Device Driver properties. (See "Appendix C: Device Driver information" on page 96.)

Property	Description
Name of Location	Every Location must have a name. Hint: To remember which Device Driver is used, put the driver type in the Location name — for example, *Engineering-Wired*.
Address List	One or more unique numbers from 0 - 255 separated by a comma or dash, that represent sign “addresses”. For example, typing 1-5 would mean that there are five ALPHA SA signs networked to this Location, and that one sign has an address of 1, another has 2, etc. To change the address of a sign, see “Appendix N: Setting the address of an ALPHA SA sign” on page 123.
Time Zone Adjust	Difference, in number of time zones, between the time where a server is located and the time zone where a client is located

Table 3: Properties for ALPHA SA wired Locations

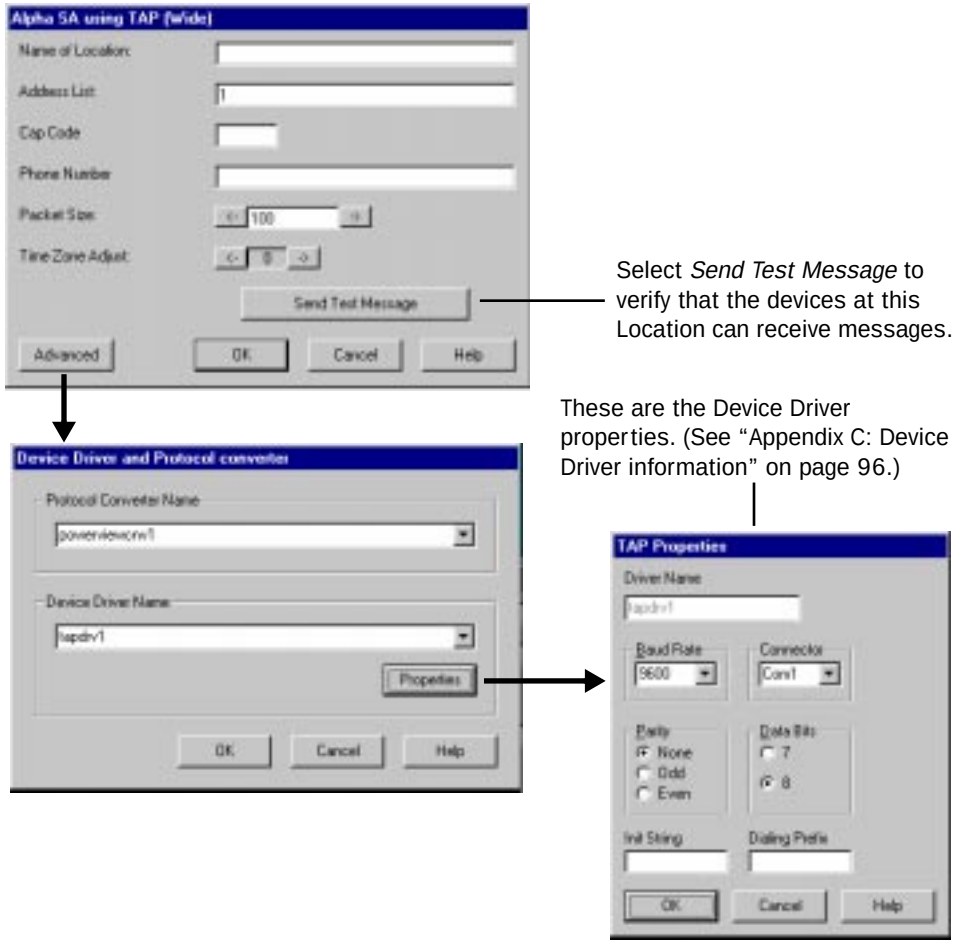
Location name	Address(es)	Time zone adjust

ALPHA SA Wireless properties

This type of Location is composed of one or more ALPHA SA signs that are connected to the Server via a wireless data receiver attached to each sign. In order to transmit messages from the Server to a data receiver, either a wireless transmitter must be connected to the Server Ñ for *TAP (Local)* or *Tekk Inc KS-960* Ñ or a modem must be connected to the Server Ñ for *TAP (Wide Area)*.

In the Administrator, select *File* > *New* > *Location* > *Alpha SA* > *Wireless*. Then select either *TAP (Wide Area)*, *TAP (Local)*, or *Tekk Inc KS-960*:

TAP (Wide Area)

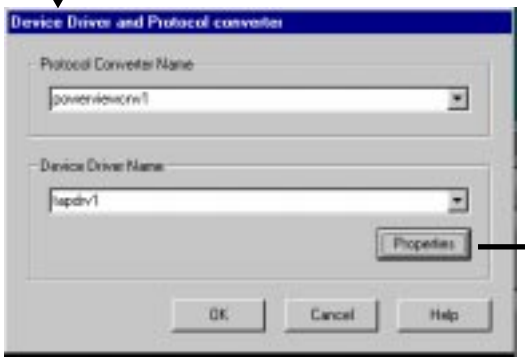


Select *Send Test Message* to verify that the devices at this Location can receive messages.

These are the Device Driver properties. (See “Appendix C: Device Driver information” on page 96.)

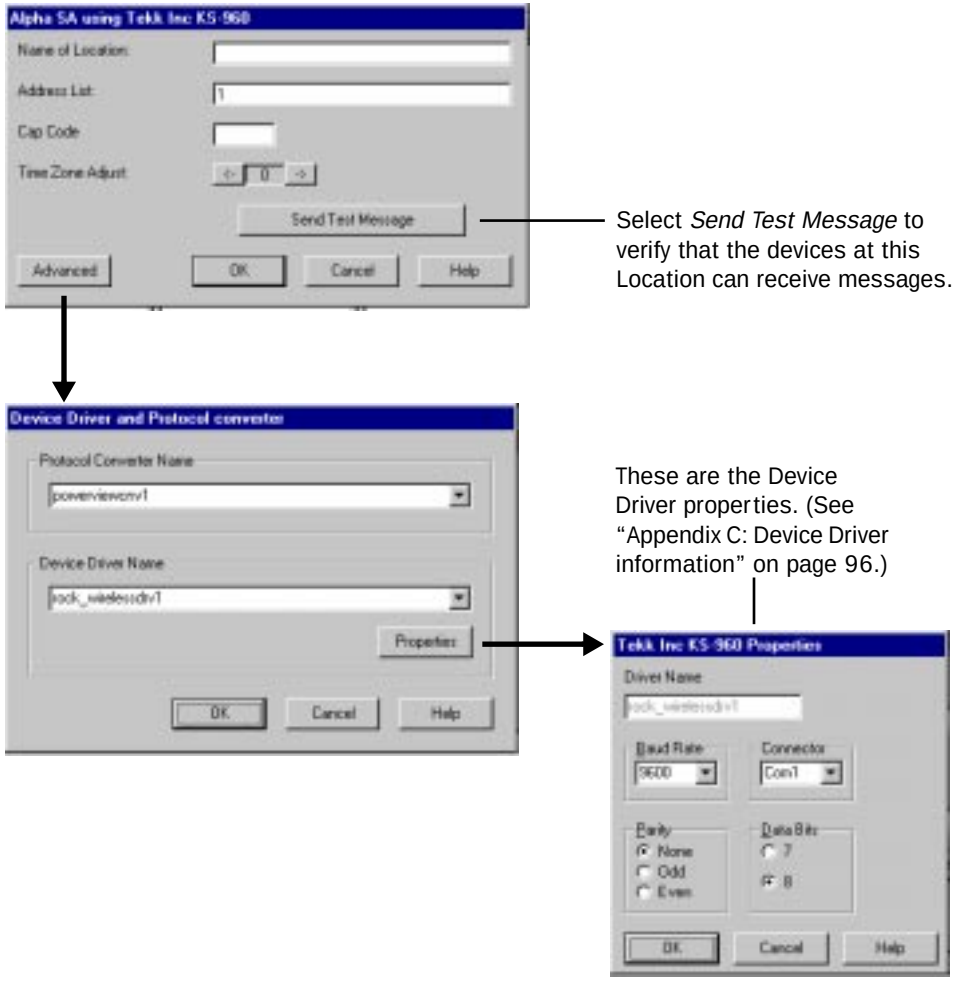
TAP (Local)

Select *Send Test Message* to verify that the devices at this Location can receive messages.



These are the Device Driver properties. (See "Appendix C: Device Driver information" on page 96.)

Tekk Inc KS-960



Select *Send Test Message* to verify that the devices at this Location can receive messages.

These are the Device Driver properties. (See "Appendix C: Device Driver information" on page 96.)

Table 4: Properties for ALPHA SA wireless Locations

Location name	Address(es)	Capcode	Time zone adjust

ALPHA SA LAN properties

This type of Location is composed of one or more ALPHA SA signs that are connected to the Server via a print server.

In the Administrator, select *File* > *New* > *Location* > *Alpha SA* > *LAN:*

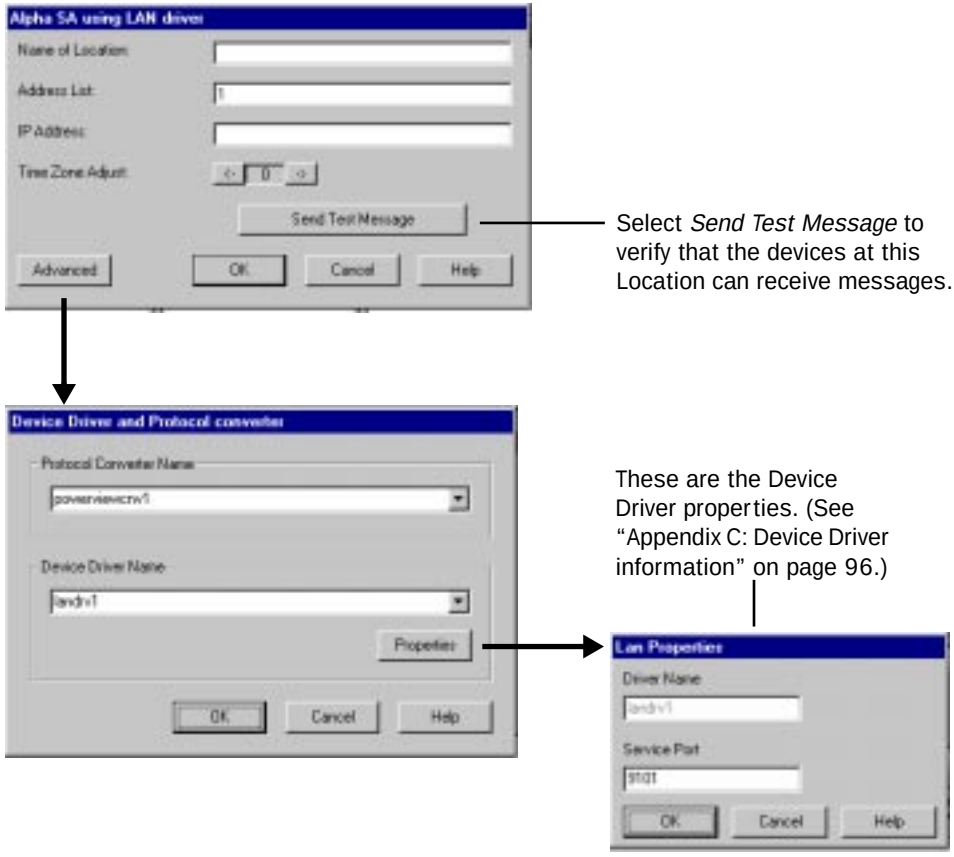


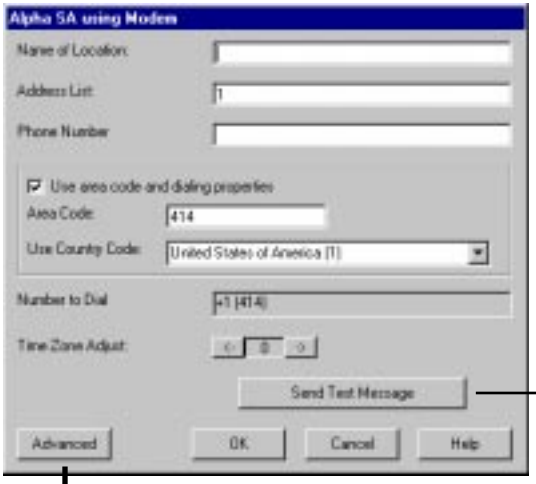
Table 5: Properties for ALPHA SA LAN Locations

Location name	SIgn Address	Print server IP Address	Time zone adjust

ALPHA SA Modem properties

This type of Location is composed of one or more ALPHA SA signs that are connected to the Server via a modem. (There must be a transmitting modem, attached to the Server, and a receiving modem, attached to a sign.)

In the Administrator, select *File* > *New* > *Location* > *Alpha SA* > *Modem:*



Select *Send Test Message* to verify that the devices at this Location can receive messages.

These are the Device Driver properties. (See "Appendix C: Device Driver information" on page 96.)

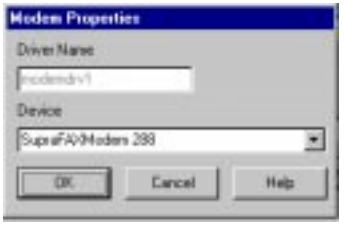


Table 6: Properties for ALPHA SA modem Locations

Location name	Address	Phone no.	Time zone adjust

Pager properties

This type of Location is composed of an alphanumeric pager connected to the Server via a wireless transmitter.

In the Administrator, select *File > New > Location > Pager.* Then select *TAP (Wide Area)*, *TAP (Local)*, or *Tekk Inc KS-960*.

ÒALPHA SA Wireless propertiesÓ on page 102 also applies to Pager properties.

Table 7: Properties for Pager Locations

Name of the location	Cap code for pager	Time zone adjust

Appendix E: User properties

The following table is provided to make it easier to keep track of User properties:

Table 8: Properties for Users

User name	Password	Email address	Access rights			
			Locations	Variables	Templates	Administrator access?

Appendix F: Network types

Appendix G: Troubleshooting

Where to go for additional help

If you need assistance, please follow this procedure:

1. Refer to relevant topics in this manual.
2. Refer to on-line Help for pertinent software.
3. Contact your authorized Smart Alec reseller.

What you need to provide when you need assistance

If you need technical assistance, you will need to provide:

- full description of the problem
- the sequence of steps that lead up to the problem
- computer system hardware and relevant software version numbers
- the version number of Smart Alec
- the product serial number Ð found on the outside packaging and on the registration card
- the version number of any relevant Smart Alec components, found in *Help > About* for that component.

For more information, you can visit Adaptive Micro Systems' World Wide Web site at: http://www.ams-i.com.

Appendix H: What Modes are available on signs

Modes are special effects used in the *Editor* to change the way a message appears on a sign:

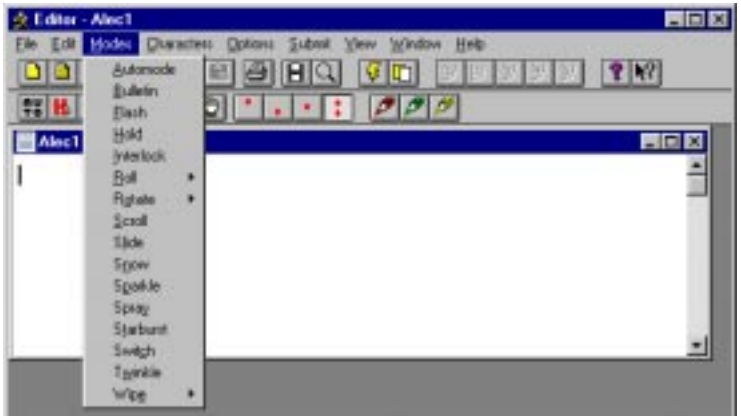


Table 9: Modes available on signs.

Sign (FM = Full Matrix, CM = Character Matrix, LM = Line Matrix)		Modes																
								Rotate										
ALPHA sign	Type	Automode	Bulletin	Flash	Hold	Interlock	Roll	Standard	Condensed	Scroll	Slide	Snow	Sparkle	Spray	Starburst	Switch	Twinkle	Wipe
Series 200	FM	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Series 300	FM	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Series 4000	FM	●		●	●	●	●	●		●	●	●	●	●	●	●	●	●
Series 7000	FM	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●
Big Dot	FM	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Alphavision FM	FM	●	●	●	●	●	●	●		●			●				●	●
Alphavision CM	CM	●		●	●													●
790i	FM	●		●	●	●	●	●		●	●	●	●	●	●	●	●	●
Solar	FM	●		●	●	●	●	●		●			●				●	●
Director	CM	●		●	●													●
2.1-inch CM	CM	●		●	●													●
3.2-inch CM	CM	●		●	●													●
PPD	LM	●		●	●	●	●	●		●	●	●	●	●	●	●	●	●

Appendix I: What Characters & Colors are available on signs

The *Editor* allows you to change the character shapes and colors that appear in sign message:

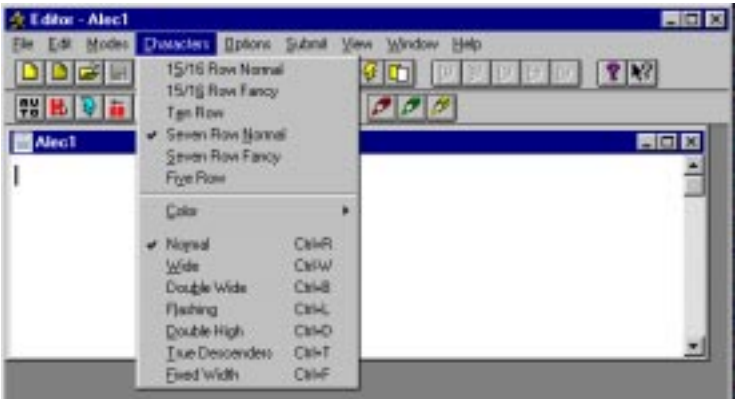


Table 10: Characters and Colors available on signs.

Sign (FM = Full Matrix, CM = Character Matrix, LM = Line Matrix)		Characters													
ALPHA sign	Type	15/16 Row Normal	15/16 Row Fancy	Ten Row	Seven Row Normal	Seven Row Fancy	Five Row	Color (see NOTE)	Normal	Wide	Double Wide	Flashing	Double High	True Descenders	Fixed Width
Series 200	FM				●	●	●	●	●	●	●				●
Series 300	FM				●	●	●	●	●	●	●				●
Series 4000	FM	●	●		●	●	●	●	●	●	●	●			●
Series 7000	FM	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Big Dot	FM				●	●	●	●	●	●	●				●
Alphavision FM	FM	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Alphavision CM	CM				●		●	●	●			●			
790i	FM				●		●		●	●	●				●
Solar	FM	●	●		●	●	●	●	●	●	●				●
Director	CM				●		●	●	●			●			
2.1-inch CM	CM				●		●	●	●			●			
3.2-inch CM	CM				●		●	●	●			●			
PPD	LM				●	●	●		●	●	●				●

NOTE: Sign names ending in “C” or “T”, such as 4120C or 37-90T, have color capabilities. Sign names ending in “R”, such as 4120R or 37-90R, can display in red only.

Appendix J: What display Options are available on signs

Options is an *Editor* command composed of special features, like animation, and is used by the software to enhance the way a message appears:

Table 11: Options available on signs.

Sign (FM = Full Matrix, CM = Character Matrix, LM = Line Matrix)		Options													
ALPHA sign	Type	TIme	Date	Variables	Temperature	Speed	New Line	New Page	Animation	Attach File	Accessory Enable	Snippet	SA Text MArker	Begin Repeat	End Repeat
Series 200	FM	●	●	●		●	●		●	●		●	●	●	●
Series 300	FM	●	●	●		●	●		●	●		●	●	●	●
Series 4000	FM	●	●	●		●	●		●	●	●	●	●	●	●
Series 7000	FM	●	●	●		●	●	●		●	●	●	●	●	●
Big Dot	FM	●	●	●		●	●		●	●		●	●	●	●
Alphavision FM	FM	●	●	●		●	●	●		●		●	●	●	●
Alphavision CM	CM	●	●	●		●	●	●		●		●	●	●	●
790i	FM	●		●	●	●	●		●	●		●	●	●	●
Solar	FM	●	●	●	●	●	●		●	●		●	●	●	●
Director	CM	●	●	●		●	●	●		●		●	●	●	●
2.1-inch CM	CM	●	●	●		●	●	●		●		●	●	●	●
3.2-inch CM	CM	●	●	●		●	●	●		●		●	●	●	●
PPD	LM	●	●	●		●	●		●	●		●	●	●	●

Appendix K: Smart Alec components

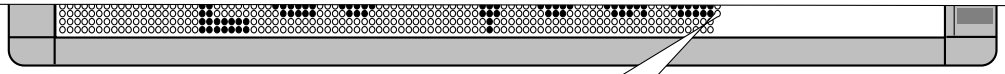
The server components or the client components, or both server and client components (or applications) can be installed on a computer.

Component name	Component function	Server	Client
Administrator	Allows administrator to manage the system components	✓	
ASCII File Input Interface	Combines ASCII-delimited text files with predefined Templates		✓
Clock Variable Demo	An example of a DDE server.		✓
Device driver - LAN	Sends output to a LAN device (print server)		✓
Device driver - Modem	Sends output to a modem		✓
Device driver - TAP	Sends output to a TAP-protocol device		✓
Device driver - Wired	Sends output to a wired device		✓
Device driver - Wireless	Sends output to a wireless transmitter		✓
Editor	Allows the creation and editing of messages and templates		✓
Email Gateway	Processes mail sent to Smart Alec		✓
Message Viewer	Allows you to view messages currently in Smart Alec		✓
Message Server	Processes and logs all messages that go through Smart Alec	✓	
Pager - Output Interface	Converts output to pager protocol		✓
Alpha SA - Input Interface	Converts output to ALPHA SA sign protocol		✓
Set Password	Allows you to change your password	✓	
Smart Alec Launch Configuration Utility	Allows you to select which components will start when Smart Alec Launch Utility is selected		✓
Smart Alec Launch Utility			✓
Variable Manager	Collects DDE variable information		✓
License information			
Licenses – Users		5	
Licenses – Variables		100	

Appendix L: Understanding line positions (Top, Middle, Bottom, Fill)

The Òline positionÓ refers to where a message can be displayed on a sign Ñ the top, middle, bottom, or Þll positions. Line position are available with most Modes (e.g., Hold, Snow, Sparkle, etc.):

Line position	What appears in the Editor:	What is displayed on a 2-line sign:
Top		
Middle		
Bottom		
Fill		



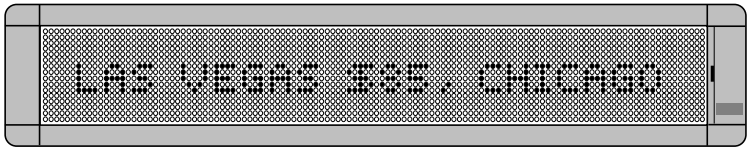
Sign		Display area (col x rows)	Colors
BETA-BRITE Series		ITE	80 x 7	8
		E BIG DOT	80 x 7	
		A Big Dot	80 x 7	
215 Series		215	90 x 7	
		215C	90 x 7	
		320C	120 x 7	
		330C	180 x 7	
			120 x 16	
Outdoor displays	790i	90 x 7	
ALPHAVISION	Display areas from 128 x 32 to 256 x 128.		

NOTE: Sign names ending in “C”, such as 4120C, have color capabilities. Sign names ending in “R”, such as 4120R, can display in red only.

Text comes in four basic sizes

Five Row

In this type size, characters are 5 rows high and about 5 columns wide:

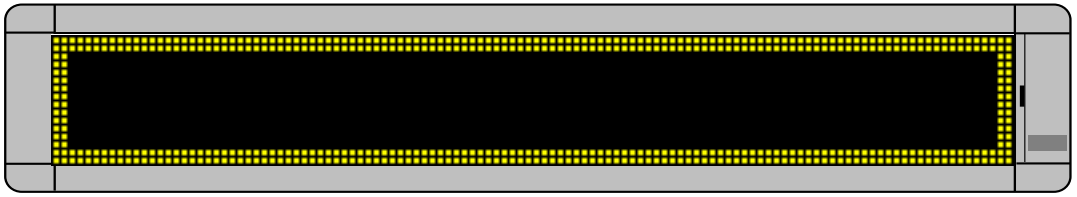


Graphics must be "bitmapped to a sign's columns and rows

Before creating a graphic for a particular sign, you must Þrst know the display area of that sign.

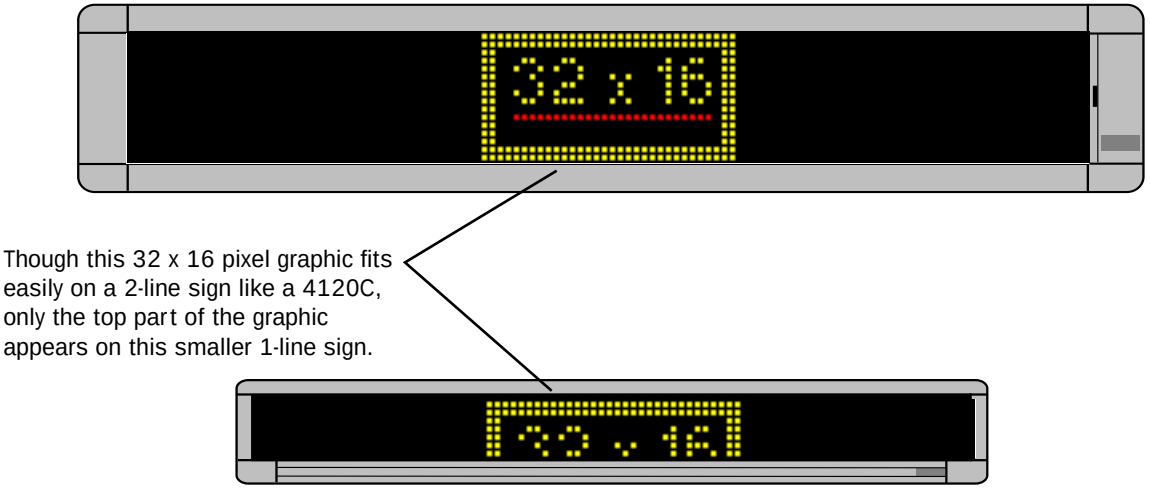
The columns and rows that make up a signÕs display area also represent the maximum pixel size of a graphic that can be displayed on a sign.

For example, a 4120C (or 4120R) sign has a total display area of 120 columns x 16 rows. This means that the largest graphic that could be displayed would be to be 120 pixels wide x 16 pixels high: (The graphic could, of course, be smaller than this.)



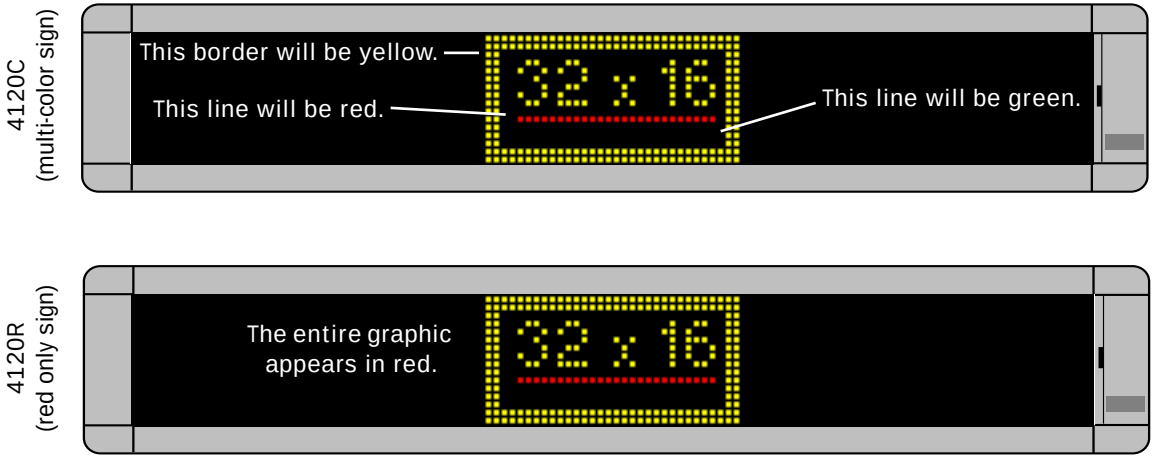
A graphic may be too big for some signs

Because signs vary in size, make sure that your graphics are designed to Þt on all your signs or at least on one of your signs:

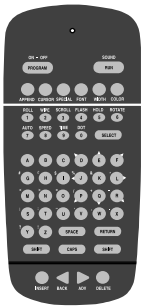


A graphic may be the wrong color for a sign

Only ALPHA SA sign names ending in ÒCÓ have color capabilities (like the 7120C). ALPHA SA sign names ending in ÒRÓ, like the 4120R, can only display red:



Appendix N: Setting the address of an ALPHA SA sign



Remote Control

An ALPHA SA sign comes from the factory with an Òaddress Ó of 0. However, this address can be set to any number between 0 and 255.

Giving a sign a unique address allows you to send messages to a single sign that is part of a network of signs.

The following instructions describe how to change the address of an ALPHA SA sign with an infrared Remote Control keyboard.

NOTE: The infrared Remote Control can not be used with all ALPHA SA signs. On some ALPHA SA signs, an internal DIP switch must be set to change the address. See the documentation that came with your sign.

1. Press the **PROGRAM** key.
2. Press the **BACK** key until *SET SERIAL ADDRESS* or *SET SERIAL* appears on the sign.
3. Press the **ADV** key and the signÕs current address will appear, such as *SERIAL ADDRESS = 000*.
4. Type the new address, like *010*.
5. Press the **RUN** key twice to enter the new address.

Appendix O: DDE servers

Working with existing DDE servers

The *Variable Manager* acts as a DDE client. It needs a DDE server to communicate with in order to create Variables. Many existing programs already function as DDE servers, such as Wonderware's Intouch and Microsoft Excel. To use these or any other DDE-server applications with the *Variable Manager*, you must find the service, topic, and item names which are to supply values for the Variables from the DDE server. The application's documentation should provide these.

The *Variable Manager* establishes a request-and-advise loop when it requests an item from a DDE server. This means that the *Variable Manager* requests the item's value once from the DDE server and then the DDE server is responsible for sending the item to the *Variable Manager* each time the item changes value (as long as the conversation between the *Variable Manager* and server has not been broken).

If you have a custom application which is not a DDE server but is one which you would like to use as a source of Variables for Smart Alec, there is an example which shows you how to create a DDE server:

- CLOCKSRC.EXE, in the É VARMNGR\CLOCKSRC directory Ð a Visual C++ (version 4.x or greater) example which has DDE functionality encapsulated in C++ classes. The README.TXT file included with the source code provides additional information.

NOTE: When using DDE, *Variable Manager* must be installed on the same computer as the external data source, and that source must be Windows-based. When using NetDDE, *Variable Manager* must be installed on the same network as the external data source, and that source must be Windows-based. When using socket communications, *Variable Manager* can be installed anywhere, but the external data source need not be Windows-based.

Appendix P: Formats of ASCII-delimited files

The *ASCII File Input Interface* uses data Þles as sources of data to merge with Templates created in Editor. There are four variations of the traditional ASCII-delimited Þle format. Each variation provides a little bit different functionality. All variations are ßat Þles which use commas as Þeld delimiters.

File formats

Basic DAQ Format

The basic .DAQ Þle has one header record and any number of data records.

Record One = Template Name,Owner Name
Record Two = Field1,Field2,Field3,…
Record Three = Field1,Field2,Field3,…

EXAMPLE
Birthday,Alec
Bill,29,March 29
Bob,30,April 1
Betty,28,April 10

Registered Extension Format

The registered extension format Þle has the type of its extension (e.g., Ò.xlsÓ) and the owner (e.g., Excel) registered for use with a particular Template through the Administrator. This eliminates the need for the header record (with Template name and Owner name) to be in the Þle. Only data records are needed.

Record One = Field1,Field2,Field3,…
Record Two = Field1,Field2,Field3,…
Record Three = Field1,Field2,Field3,…

EXAMPLE
Bill,29,March 29
Bob,30,April 1
Betty,28,April 10

Extended DAQ Format

An extended .DAQ Þle is used with a template that contains at least one *@submit* Þeld. The Þle has a header record with values for the *@Submit* Þelds in the template. This Þle also has another header record (with Template name and Owner name) and any number of data records.

Record One =Template Name,Owner Name
Record Two = Destination,Start Date,Start Time,End Date,End Time, Duration
Record Three = Field1,Field2,Field3,…
Record Four = Field1,Field2,Field3,…

EXAMPLE
Birthday,Alec
Office,,,,,5:00:00
Bill,29,March 29
Bob,30,April 1
Betty,28,April 10

Extended Registered Extension Format

An extended .DAQ Þle is used with a template that contains at least one *@Submit* Þeld. This Þle has a header record with values for the *@Submit* Þelds in the template.

The registered extension format Þle has the type of its extension (e.g., Ò.docÓ) and the owner (e.g., Microsoft Word) registered for use with a particular Template through the Administrator. This eliminates the need for the header record (with Template name and Owner name) to be in the Þle. One header and any number of data records are used.

Record One = Destination,Start Date,Start Time,End Date,End Time, Duration
Record Two = Field1,Field2,Field3,…
Record Three = Field1,Field2,Field3,…

EXAMPLE
Office,,,,,5:00:00
Bill,29,March 29
Bob,30,April 1
Betty,28,April 10

Format of @Submit fields in the header record

General

- .DAQ Þles are in ASCII-delimited Þle format.
- Parameters included in these Þles will override any parameters deÞned in a template message.

Comma delimiters

- Commas are used for separating the *@Submit* Þelds.
- Do not include spaces before or after the comma, except when the space is part of the data.
- For the template / owner header, both Þelds are needed, with one comma between them.
- For the scheduling header, there must be Þve (5) commas total. There does not have to be anything between them, and if there is not, then a comma acts as a placeholder. However, you should include all the Þelds logically needed. For example, if you have a start time and date, you should also have either a duration or a stop time and date.

Destination

- Must be typed exactly as is shown in the *Editor* lists of Locations in *Submit > Submit Options.*
- This is case-sensitive, that is, use upper and lower case as appropriate.
- If the Location is a group, then the Destination must be typed with *(Group)* at the end.

Date

- Do <u>not</u> use commas within the date Þelds! Commas are reserved for separating the *@Submit* Þelds.
- Use month-day-year format.
- It is best to use backslashes (/) or dashes (-) as separators. However, words are acceptable for the month. Do <u>not</u> include commas!

Time

- Use military time, that is, a 24-hour clock.
- Use the format HH:MM:SS. Default start time is immediate.
- For example, 18:45:22, for 22 seconds past 6:45 PM.

Duration

- Use the format HH:MM:SS. Default is two minutes.

Format of fields in data records

Comma delimiters

- Commas are used for separating the data fields.
- There is no comma at the end of any record.

Field values

- If there is a comma within the data for a field, enclose the entire field data in quotes.

Field numbers

- In the template message, the field number corresponds to the sequential number of the desired field in the ASCII-delimited data file.

The value of the *Field Number* here coordinates with the sequence of the fields in a text file which can supply the values.

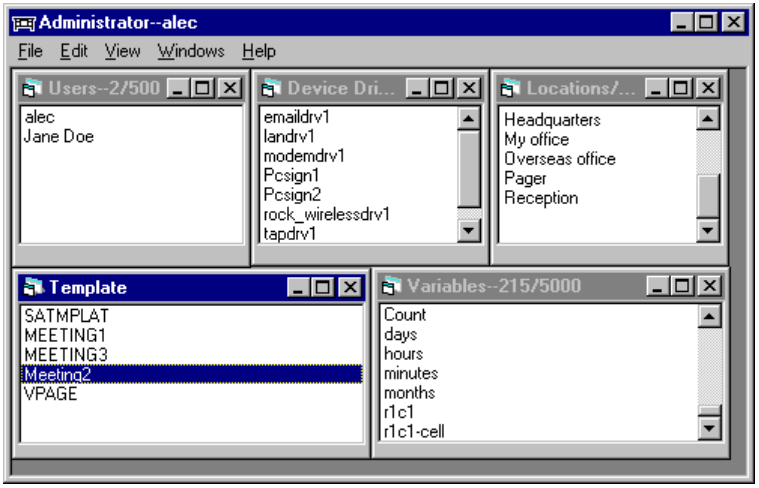
- For example, assume you have a data file with a total of fifty fields. You only want to use three of these fields. The three you want are number 40, 21, and 35, in that order in the template message. So when you enter them in the template message, specify the first text marker field as number 40, the second as 21, and the last as 35.

Registering an extension and owner

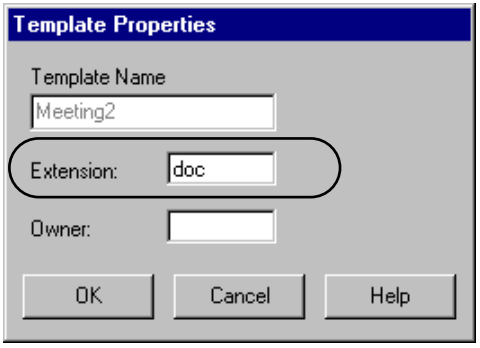
You can associate a speciÞc template with a unique type of Þle extension for a Þle that provides data for a variable in that template. With this, Smart Alec automatically merges a Þle with that extension together with the template to process a complete message.

While this example shows a template being associated with Microsoft Word, typically, this would be associated with the output Þle from a custom application.

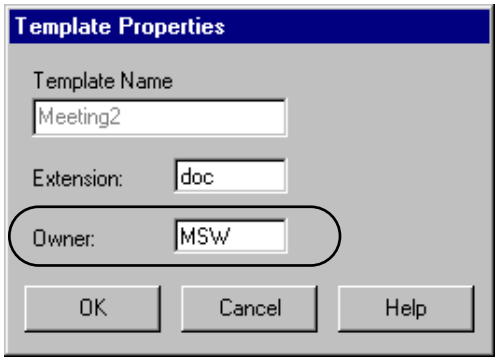
1. In the *Administrator*, select the template to be used and then choose *Edit > Properties*.



2. The *Template Properties* screen will appear. Enter the *Extension* for the type of Þle you would like this Template to use, e.g., Òdoc Ó for a *Microsoft Word* document.



3. Enter the *Owner* who will be submitting the ASCII Þle with that extension, e.g., ÒMSWÓ for Microsoft Word. (An *Owner* is any person or application which will submit information in some way to Smart Alec. *Owner* is used as a label in the *Message Server* so you can recognize where the data is coming from. *Owner* can be up to three characters.)



4. Select OK. This template will now be used any time an ASCII Þle with that extension is put in the *ASCII File Input Interface's* Inbox. You wonÛt need the header record with Template name and Owner name in the Þle.

Appendix Q: How to assign a user's email name in Windows NT

You must manually change the CROSSREF.INI Þle in Windows NT. Use this description and example of the sections and lines which are needed to assign a user and an email identity:

Description

```
[Users]
Login Name=User profile .INI file name

[Email Users]
Local Email Address=User profile .INI file name
```

Example

```
[Users]
Alec=ale

[Email Users]
Administrator=ale
```

Glossary

ASCII file

An ASCII Þle comes from an information source, such as software or email, and includes ASCII text strings and possibly some submission options. In most cases, the ASCII Þle includes a template name (except if the template was previously associated with a particular type of ASCII Þle through the *Administrator*).

Destination

A selected location where a message will be sent.

Device

In general, any kind of hardware component that is part of your computer system. However, in Smart Alec, the term device is limited to hardware components to which you send messages. Examples are: signs, modems, and pagers. All devices need Device Drivers.

Device Driver

Software and parameter settings needed to communicate properly with a hardware device.

The Smart Alec system includes the following device drivers:

- Wired Ñ Uses cables to connect ALPHA SA signs into a network, and messages are sent over this cabling. A direct com port connection works best when all the devices are in one building.
- Wireless Ñ Uses a wireless receiver attached to a display device. The advantage of this connection method is that wiring does not have to be strung between devices. Messages are sent from your computer to wireless receivers and pagers via a transmitter, attached to your computer, which broadcasts messages to these receivers. The distance from your transmitter to the receivers is limited.
- Modem Ñ Uses a modem attached to your computer and one or more modems attached to a remote device. When a message is sent, it is transmitted to the remote device when the computer modem calls the deviceÕs modem. A modem connection is often used for devices that are not in the same building and possibly not in the

same city. It works best when message data does not change rapidly.

- ¥ TAP Ñ Uses a wireless receiver attached to a device, either a display or a pager. A message is sent from your computer to an attached modem. The modem then dials a paging service, such as SkyTel, and this paging service actually transmits the message to the wireless receiver. The distance between your transmitter and the receivers is limited only by the range of the paging service.
- ¥ LAN Ñ Uses a Local Area Network cabling system to transmit messages to a device on the LAN with an IP address.

NOTE: You may have purchased devices from other third party sources. These are not supported by Adaptive Micro Systems. You will need to consult the third party source for any needed assistance.

Display message

The actual message that will be displayed at the communications device. It includes the message text - plus any embedded variable data. For example, message text might include headings of plant run rates. Below the headings, the variable values (run rates for each production line) are embedded in the message and displayed as they change. Display messages also include the associated submission options. Finally, display messages have been converted to the format required for the selected display device(s), such as an ALPHA SA sign or an alphanumeric pager. The layout follows:

Display message (in output device format)					
Submission options				**Message text**	
User/owner	Destination(s)	Schedule or active period	Priority	Message text with embedded variables	Display format

Dynamic Data Exchange

Dynamic Data Exchange, or DDE for short, is a programming method by which Windows-based computer applications can exchange data when running simultaneously, generally on the

same computer. This way they can Òcommunicate Ó directly and actions in one system can be triggered by data in another system.

External data source

A source of data or information outside of the Smart Alec system. Also known as a data server. One example of an external data source could be a production line system, such as Intellution or WonderWare, providing machine statistics, like the number of parts produced per minute or a machine's temperature. Another example of an external data source could be a Microsoft Excel or Lotus 1-2-3 spreadsheet.

Location

An individual or group of output communication devices, such as ALPHA SA signs, pagers, or other communication devices. Examples of Locations could be the vice presidentÕs pager, the companyÕs intranet site, or an ÒOfÞceÓ Location which includes all ALPHA SA signs in the ofÞce area of a company. A Location is a message destination. Each Location has a name and other information, such as baud rate or address.

Message

A Smart Alec message is composed of two necessary parts: the message text and the submission options, as deÞned below.

Message text

The text of a message, including optional links for variables that indicate where variables will be displayed at the communications device. Message text also includes the format in which the information will be displayed (such as red and yellow ßashing LED letters).

Submission options

The properties of a message that enable Smart Alec to deliver that message at the right time to the right place. Typically, these properties are assigned in the *Editor*. Submission options include the user / owner of the incoming information, the destination(s) where the message should be sent, the priority, and the schedule of the message. Messages are scheduled using either preset schedules or an active period started and stopped by variables as triggers:

- Some messages have pre-set schedules Ñ they run at a given time for a given length of time. For example, an

employee greeting can be set to run every day at 8:00 AM for an hour, factory statistics might run all day, or an email that pages MIS might be set to run immediately as soon as it is submitted to Smart Alec.

¥ Other messages run only during an active period, when triggered by a changing variable value. As values for that variable stream into Smart Alec, the *Variable Manager* keeps track of these values, watching for a threshold to be crossed in some way. When that happens, a message is triggered to run. For example, the variable for an alarm might take on the values 0 or 1: 0 if it is off, 1 if it is on. The variable is submitted to Smart Alec. If the alarm goes off, the variable changes from 0 to 1, triggering Smart Alec to send a message like ÒFire in the North Sector.Ó In another example, a temperature is continually sent to Smart Alec, which is set to trigger a message if the temperature rises above 90 degrees. The message is set to stop running when the temperature drops below 90 degrees. The period during which the message runs is called the Òactive period.Ó

Message					
Submission options				**Message text**	
User/owner	Destination(s)	Schedule or active period	Priority	Message text with optional links for variables	Display format

Protocol

A format, or a set of standards or rules for how things are supposed to be formatted or done. In the computer and communications world, protocols relate to the format and timing of data transmission between devices. The rules have to do with speed, tones used, and events that must be done in a speciÞc sequence so that hardware devices work together properly. ItÔs similar to the agreement we have to speak the same language.

Protocol Converter

Software to convert the format of the message to the protocol of a device. ItÔs a translator. For instance, Smart Alec has one to

reformat messages to the required protocol for an ALPHA SA display, another for pagers, etc. A pager protocol converter is also responsible for keeping information up-to-date in messages that use variables.

Template

A blueprint of the text, formatting, and submission options or properties of a message. Created in the *Editor*, a template can be used over and over again with slight variations in the options. Typically a template pre-deÞnes most of the message text and submission options, leaving key elements blank for use in recurring messages. In a template, some text is always missing, indicated by a Òtext markerÓ which acts like a placeholder inserted in the template. In some cases, submission options, like the destination location or active period are missing from the template. The user then instructs Smart Alec that the information will be provided Òat submitÓ time, when the message is submitted for display. Key elements are:

Template					
Submission options				**Message text**	
User / owner	Destination(s) provided “at submit” time	Schedule or active period	Priority	Message text with optional links for variables and “text markers”	Display format

For example, a template might include the text: *Happy Birthday to [text marker].* Various peoplesÕ names will later be inserted into the text marker space. New text to Þll in the text marker space may be provided directly through the *Editor* or may be supplied in an ASCII Þle from an outside information source or email.

Submission options may also be updated through the *Editor* or provided in an incoming ASCII Þle. For example, email always provide the user / owner information and text to an associated email template. The pre-deÞned template determines the locations and active period.

User / owner

Any person who is both authorized and set up to submit information in any way to Smart Alec.

Each user has not only a name and password, but can also have an email address and a list of authorized locations, templates, and / or variables that person can use. In addition, one or more users may be authorized as a system administrator. The number of users active at the same time is limited only by the number in your license agreement.

Variable

A variable represents real-time data that changes (e.g., temperature or production rates, security lock status, alarms.) Its value changes so itûs called a variable.Ó Variable values are typically acquired and handled by the *Variable Manager* through Smart Alecûs DDE or serial interfaces. Variables are embedded in messages (at variable links) in real time. The value of a variable gets Þlled in wherever the variable is used in a message and is refreshed as the value changes. Variables can also be used to trigger messages and events to start and stop.

As an example, you could have a variable called ÒTemperatureÓ which is continually Þlled in with values from a thermometer, changing whenever there is at least a 1-degree change at the thermometer. Whenever Òtemperature Ó equals or exceeds 212¡ F, an alarm sounds.