Chapter 7 Using AKA 65 Software on Your PC

AKA 65 software can be used for communication with a local AKCESS network (that’s one that the PC is directly connected to), and also (over telephone lines) with remote AKCESS systems that are equipped with modems. With AKA 65, you can create and maintain a telephone directory for your AKCESS systems. You can also download history from the systems for storage and processing on your PC.

When communicating with an AKC 55, AKA 65 Network Interface software exactly duplicates each screen seen on the AKC 55 Rack Controller. Navigation from screen to screen is precisely the same, too; all the procedures for configuration and using the system are the same, except that you will be using the PC keyboard and monitor instead of the Rack Controller’s keypad and display. There is also an option in AKA 65 to use color icons in the rack controller screens you are viewing.

Install AKA 65 software by following the instructions in the package.

Starting AKA 65

To start AKA 65, click on the AKA 65 icon. A title window with program information (version number, copyright information, and registered name and serial number) will appear briefly, then the main window headed AKA 65 Network Interface will open. (If you need the version number or serial number later, you can bring up the title window by selecting About... from the Help menu.)

Chapter 7 - 1: First Things First

This brief section orients you to the AKA 65 menu options. It will only take a few minutes to read, but if you’re in a real hurry, skip ahead to the paragraphs on Port Configuration and get that done before trying to communicate with a system, either local or remote.

On the menu bar in the main AKA 65 window are four items: File, Connect, View, and Help. A click on any of these will produce a drop-down menu for further selections.

File Menu:
Update Win 55 Module

You will need to use this option when you receive a Win 55 program update from Danfoss. Follow the instructions that come with your update disk.
Run a Simulated AKC 55

This option is useful for examining and editing database (configuration) files you have saved to disk. It can also be used for training. A click produces this window:

![Select Database file to load into Simulator](image)

In the box on the left side of the window, the first item will always be [none]. Beginning on the next line will be a list of the database files you have stored to disk using AKA 65. The most recently saved database will be highlighted.

Clicking on the Execute button will always cause the Sim 55, the AKC 55 simulator, to run. Sim 55 presents a screen which beneath its Windows menu bar contains exactly the same information as an actual AKC 55. Sim 55 was used to create most of the screens used in Chapters 4 and 5 of this manual.

Selecting [none] in the Database files window, then clicking on the Execute button, will cause Sim 55 to run a completely unconfigured “unit.”

When a stored database is selected from the list, pressing Execute will run the AKC 55 simulator with the configuration that database contains.

Exit AKA 65

A click here ends your AKA 65 session. The session will also end, and (disconnect communications) if you close the AKA 65 window or if your computer is shut off during the session. No harm will be done in either case.

Connect Menu

The connect menu has five options, all of which have to do with communications.
Connect Menu:

Login

Click on Login to start communications with an AKCESS system to which your PC is directly connected.

Connect Menu:

Dial

Dial is for modem communications over a telephone line. See Chapter 7-3.

Connect Menu:

Ethernet

Ethernet is for communications over an ethernet network. See Chapter 7-4.

Connect Menu:

Port Configuration

Start here to configure your AKA 65 software for your personal hardware. You will need to know what COM ports (and the IRQ for each, possibly) on your computer are being used for direct connection to a local AKCESS system and for your modem.

Click on Port Configuration and you are asked for the information:

For local communication, the AKA 65 needs only to know the COM port and IRQ. In many cases, selecting the default IRQ (interrupt request) for a COM port will be correct. If there is special or unusual hardware connected to your PC (extra drives or peripherals, most likely) then your ports may have been assigned non-default IRQ’s, and you will have to supply specific information.

Modem Settings

For your modem, you will have to supply the maximum speed (“Baud rate”). You may need to supply an initialization string; if you do not supply one, AKA 65 will attempt to initialize the modem using a generic string. If you need to enter an initialization string, consult your modem manual.

Check either Tone or Pulse as appropriate for the telephone line.

Dialing Prefix

If your telephone connection is through a switchboard, or if a dialing prefix is needed for another reason, click on the Dial checkbox and then enter the prefix in the space provided. If necessary, use one or more commas to cause a pause during dialing.
Calling Card Information

To use a calling card for AKA 65 calls, click on the Calling card checkbox, then supply information as follows:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number:</td>
<td>Enter the telephone number you dial to reach your calling card service provider.</td>
</tr>
<tr>
<td>Account no.:</td>
<td>Enter your calling card account number.</td>
</tr>
<tr>
<td>Authorization:</td>
<td>Enter your PIN number or accounting code if required.</td>
</tr>
</tbody>
</table>

When you dial a unit, AKA 65 does the following:
1. Dials your service provider, then pauses
2. Dials the AKCESS system you have chosen, then pauses
3. Dials your credit card number, then pauses
4. Dials your PIN or accounting code

When you first try credit card dialing, listen carefully to your modem speaker and try to follow the four-step program above. If you hear dialing at an inappropriate time, you probably need to extend one of the pauses. You can do this by adding one or more commas at the end of the appropriate number in Port Configuration.

When you have entered all the settings, click on OK to return to the main AKA 65 window.
Chapter 7 - 2 Connecting to an AKCESS System

Once you have supplied the correct Port Configuration information, you can easily start communicating with any of your AKCESS systems by using the Connect menu.

For connection to a local system, click on Login in the Connect menu. Immediately, a dialog box appears:

During the initial handshake between your AKA 65 PC and the AKC 55, the lines in the status panel will change from gray text to black as they are accomplished. Then, the Launch Menu will appear:

The Launch Menu appears immediately after connection is established to the lead AKC 55 in a host network. The areas and buttons on the menu are as follows:

- Store name panel: Shows the name of the installation as entered in Store Info in the AKC 55 you’re connected to. If there is no name, the panel will be blank. In the example shown, the store is unnamed.
Before discussing the remaining panels and buttons on the launch menu, let’s see how the menu changes when we have selected a unit to view and clicked on the View button:

Now, “Online” appears in the connection status panel, and in the lower left corner you can see the version of software in the AKC 55 which you have selected.

Win 55 is the viewer that AKA 65 opens when you have selected a unit and clicked on View. The contents of a Win 55 window are identical to the display on the AKC 55. Here’s exactly what the Win 55 view looks like:
The Win 55 module version has to be the same "generation" as the AKC 55 software version! Danfoss sends updates to licensed uses!!

Once this window appears, and you click on it, you are interacting with the AKC 55 you have selected as if you were right in front of it, except that now you can use the PC keyboard to enter text after you switch to edit mode with the + or - key. You can also use your mouse to select menu items and fields to edit.

There are a few keys on the AKC 55 that don’t exist on the PC. The equivalent keys to use on the PC are these:

<table>
<thead>
<tr>
<th>AKC 55 Keypad</th>
<th>PC Keyboard</th>
</tr>
</thead>
<tbody>
<tr>
<td>+/-</td>
<td>+ or -</td>
</tr>
<tr>
<td>EXIT</td>
<td>End</td>
</tr>
<tr>
<td>MENU</td>
<td>Home</td>
</tr>
<tr>
<td>Help</td>
<td>F1</td>
</tr>
</tbody>
</table>

For all the other AKC 55 keys (ENTER, arrow keys, and numerals) use the same keys on the PC keyboard.
Using Your Mouse in Win 55

Your mouse can be used to select icons and fields in the AKC 55 screens displayed on your PC. The first click on your left mouse button positions the cursor; a second click has the same effect as pressing ENTER. A click in the title section of an AKC 55 screen will “back up” one level; with multiple clicks you can back out all the way to the main menu.

The right mouse button will scroll the contents of a field (once the field has been selected with the left button) in the same way that the down arrow key will act. After you have used the right button to select the field contents you want, you can use the left button to perform the ENTER function which is necessary to confirm and store the selection.

For navigation, configuration, and operations, use the same procedures described in Chapters 4 and 5 of this manual, except that with AKA 65, text fields can be filled in by typing letters and numerals from the PC keyboard (once you have entered edit mode by typing a + or -).

Stats

At any time, you can check the time on line and other connection statistics by clicking on the Stats button on the Launch Menu.
Chapter 7 - 3  Dial-Up Communications

Dial-up communications using your modem begin when you select Dial from the Connect menu after starting AKA 65. After AKA 65 initializes your mode, the Dialing Directory appears.

Initially, your dialing directory will be empty. To add stores to the directory, click on the Add button, and an empty Modify Directory dialog box is presented. As you can see, more information is maintained for each store than is apparent from the Dialing Directory screen. After a store is in the directory, you can update the information at any time by highlighting the store in the Dialing Directory and clicking on the Modify button.

Just enter the information for the store in the blanks. Notice that there is reference information kept here which does not appear in the dialing directory. You move from one field to another with tab key (and you can move back by using Shift-tab). When the entry is complete, click on the Save button.
Before you close the dialing directory, if you want to save your changes, you must click on its **Save** button, too. If you do not, you’ll be reminded when you click on **Exit**.

**Dialing a Remote Unit**

To dial a remote unit which is in the directory, its entry must be highlighted. You can either use your mouse to highlight the entry or begin typing the store name in the Speed Search box. Once the store you want is highlighted, click on **Dial**. A dialing status box appears:

After the telephone connection is made, the Launch Menu will appear, and communication begins as described earlier in Chapter 7-2, **Connecting to an AKCESS System**.

**Manual Dialing**

If you are going to dial a unit only once, or if for some other reason you don’t want to enter it in the Dialing Directory, you can use the Manual dialing feature. Just click on the **Manual** button. A telephone keypad appears which you can dial by clicking on the keys with your mouse.

As you click on the keys, the character is appended to the window above the keypad. When the number is entered correctly, click on **Dial**. The **Clear** button can be used to erase all the numerals in the window.

Once you’re connected to the remote unit, the Launch Menu will appear as discussed in Chapter 6-2 (above).
Chapter 7 - 4  Ethernet Communications

AKA 65 can be used for communication with AKCESS systems by means of either local or satellite ethernets. Danfoss supplies ethernet adapters which are used at the PC running AKA 65 and at each remote AKCESS system.

To initiate ethernet communications, select Ethernet... from the Connect menu. A directory screen appears similar to that for dial-up communications:

Notice that instead of a telephone number, each store has an IP address. The IP address is the store’s location on the ethernet. The address can be obtained from the network administrator.

A click on Modify brings up a Modify Directory screen which is somewhat different than that for telephone communications, as you can see:
Chapter 7 - 5  Retrieving, Viewing, and Graphing History with AKA 65

AKA 65 software comes with a Special Edition of the Danfoss V.I.P. (Visual Interface Program) for viewing history. It is also possible to process history files using a spreadsheet program, either Excel, Quattro Pro, or Lotus 1-2-3. First, we will see how V.I.P. handles history, then discuss spreadsheet applications with AKCESS history files.

Install V.I.P. Special Edition by following the instructions in the package. In order to use V.I.P. as your history viewer, you must start AKA 65 and from the menu bar select View, History, Settings. Then choose V.I.P. as the program in the Data Viewer box.

History files downloaded while using AKA 65 in communication with remote AKC 55 networks are automatically stored in the AKCESS directory on your hard drive. Make sure that any history files you copy from diskette are also copied to the AKCESS directory.

There are two ways to start V.I.P.

Starting V.I.P. from Windows 95

Use the Start button in Windows 95, then Programs, Danfoss Automatic Controls, and finally V.I.P. When the title screen appears, use the menu bar and click on File, Open History, and a screen will appear like the one shown here, listing all the history files you have in your AKCESS directory (only part of the screen is shown):

<table>
<thead>
<tr>
<th>File</th>
<th>Name</th>
<th>Start</th>
<th>End</th>
</tr>
</thead>
<tbody>
<tr>
<td>07/01/98</td>
<td>ACE Supermarket</td>
<td>15</td>
<td>6/29/98 7/01/98</td>
</tr>
<tr>
<td>07/01/98</td>
<td>ACE Supermarket</td>
<td>15</td>
<td>6/29/98 7/01/98</td>
</tr>
<tr>
<td>07/01/98</td>
<td>ACE Supermarket</td>
<td>11</td>
<td>6/29/98 7/01/98</td>
</tr>
<tr>
<td>07/01/98</td>
<td>ACE Supermarket</td>
<td>12</td>
<td>6/29/98 7/01/98</td>
</tr>
</tbody>
</table>

To select a file, double click on its name. When you do this, a selection screen appears.
The selection screen contains a list of available datapoints on the left. You select the datapoints you want to graph by clicking on them to highlight them, then using the Add arrow in the middle of the screen to build a list in the right box. Datapoints can be deselected by using the Remove arrow.

Some of the datapoint rates in the history file may be so short as to result in a graph with more detail than you want to see in your graph. If so, use the range button to adjust the display rate. When you click on the range button, a dialog box appears:

The date/time range given is the range covered by the entire history file. You can select all or any part of the file for viewing by adjusting the entries.

The Rate interval is the amount of time between displayed samples. It can be set to any value from 5 seconds to 1 day. Bear in mind that if the rate you choose is smaller than the actual sample interval, the measured value will be repeated to fill the displayed interval. For example, if the actual sample interval for the datapoint were one minute, and you choose in the range dialog box to display a graph of the data every thirty seconds, then each measurement would appear two times. This can result in a false sense of accuracy.

A history graph is no more accurate than the history it’s based on!!
When all your datapoints are selected, and the range is adjusted, click on the View button to make the graph appear. Here’s a typical graph screen:

This graph shows four analog sensors with the range adjusted to 2 minutes. The graph traces are in color. The sensors are listed to the right of the graph, and the reading for each is color-coded the same as its trace. If the graph contained any on/off inputs, they would be shown at the bottom of the graph area and listed at the bottom of the panel to the right of the graph. On/off inputs are also color-coded.

To move to different periods of time in the history file, use the scroll bar beneath the graph.

Using V.I.P. from AKA 65

You can select V.I.P. as your history viewer in AKA 65 rather than using a spreadsheet. From the AKA 65 menu bar select View, History, Settings, then select V.I.P. from the Program list box. Now whenever you view history data and choose a file, V.I.P. will automatically start.

You can start the V.I.P. history viewer either from Windows 95 or from AKA 65!
Before viewing history with AKA 65, click on View, then History, then Settings. The Settings dialog box appears:

First, the Spreadsheet section: Select the spreadsheet program on your PC, either V.I.P., Excel, Quattro Pro, or Lotus 1-2-3. Then, type the command line Windows uses to start the spreadsheet, or use the Browse button to find the spreadsheet’s .EXE file on your PC.

The Purge function automatically deletes history and history text files from your disk after they reach a certain age. The default purge setting is “Never purge.” Purge can be set to delete files after one or two weeks; one, two, four, or six months; or 1 year. History files (.HST) are the files pulled back from AKCESS systems to your PC, and contain all the history in a given AKCESS system. Text history files (.TXT) are the files created by AKA 65 after you have selected data points for viewing. TXT files have been prepared by AKA 65 for import into a spreadsheet program.

If you leave purge set to Never purge, you will have to manually delete history files (both .HST and .TXT) which you no longer need.
History retrieval starts from the launch menu. To download history, first use the AKA 65 Connect function to establish communications with the system. When the Win 55 Launch Menu appears, click on the Download History button. You will first select the units whose points you want to download; you can choose all units at once or individual units.

Next, a History Data Points dialog box appears:

Each point available is listed, followed in parentheses by the address of the point’s AKC 55. Select points for download by using the buttons in the center of the dialog box. Describe the group, or your purpose in downloading it, in the space labeled Description. When you have finished your list of datapoints to download and your description, your dialog box will look something like this:

If you’re satisfied with the selections you have made, click on the OK button.
Next, you are asked for the period of time you want the history downloaded:

![Select Time Range of Data to View](image)

This box gives you the option to download all the history for the points selected, or to select a shorter period in the range available. When the time range is correctly specified, click the OK button, and the download to your PC will begin.

If you are retrieving all of the history from a system, downloading can take a half hour or more. The most recent information is transferred first. You can interrupt the transfer at any time by clicking on the Cancel button.

History files are saved to your AKCESS directory and are named by the date of retrieval. If the retrieval date, for example, is April 2, 1997, the first file retrieved will be named 04029700.hst, the second 04029701.hst, and so on.
Viewing History
(Immediately) When a download is finished, a dialog box appears listing the datapoints available for viewing, in case you want to examine the downloaded history immediately. The selection process for datapoints and time range is the same as that described below. If you do not want to view the history now, click on the Cancel button.

Viewing History
(From Disk Archive) To view a history file stored on your PC, choose View, History, Data from the AKA 65 menu bar, and this dialog box appears:

The box lists all the history files you have stored. Notice that the file description you entered for the download appears when you highlight a file. When you have selected the file to view, click on Open.

Now a History Data Points dialog box appears:

From the list of points available, select the points you want to view by highlighting them in the list box on the left and clicking on Add. As you do so, the point name will appear in the list box on the right. Points can be removed by highlighting them in the right-hand box and clicking on Remove. When you have finished selecting points, click on OK.
Next, select the time range for which you want to view:

When you click on OK after selection of the time range, your spreadsheet will open and the history data will be automatically imported. After the data has been loaded into your spreadsheet program, you will be able to use the spreadsheet’s functions to process the history data, and you can create graphs using the spreadsheet’s graphing functions.