Personal Photo Viewer

User's Guide

Introduction

The Personal Photo Viewer software lets you view, crop, print and export high-quality photographic images from Photo CD discs. And if you just want to sit back and relax while viewing your photographs, turn on the integrated slide show feature to play the Photo CD as if it were a slide projector!

The focal point of the Personal Photo Viewer is the contact sheet. The contact sheet provides an overview of all photos on a Photo CD where photos can be selected for viewing or exporting in any of the 5 supported Photo CD resolutions or for inclusion in a slide show.

Load a photo for cropping or printing to any monochrome or color printer supported by Microsoft Windows. Export photos directly from the contact sheet or from the active photo window into compatible file formats such as TIF, BMP, PCX or JPG for inclusion in other Windows applications.

Create your own personal slide show using the contact sheet to select photos for inclusion in a slide show. Buttons on the slide show control panel allow for selection of size, order and duration for individual photos. The slide show can be set to run in automatic or manual mode, to play a selection or a complete Photo CD in a continuous loop for unattended play.

Getting Started

Read the "Readme" file

Make sure you read the "Readme" file in the Personal Photo Viewer directory for the latest release notes which could not be included in this document.

Hardware Requirements

For best results, the following system configuration is recommended:

IBM compatible PC/AT 80386/486 4 Mb RAM (minimum) 8-16 MB RAM (recommended) VGA or Super VGA video adapter 40-120 MB hard disk Mouse Photo CD compatible CD-ROM drive

Software Requirements

MICROSOFT-DOS 3.1 or higher MICROSOFT-Windows 3.1 or higher

Using the Mouse

The mouse is a very important tool when working with the Personal Photo Viewer and is represented on the screen by an arrow cursor. Most mice have two buttons. When using a two-button mouse, only the left button is active.

The keyboard can also be used as a shortcut to using the mouse.

When inside the program, press the Alt key and then the underlined letter displayed in each menu heading to access that menu. Type the underlined letter of the desired command listed in the menu to access the command.

For example, if you want to see the program information dialog:

- **1.** Type Alt + H to open the "Help" menu.
- 2. Type O to access the "Info" dialog.

Standard Procedures

This manual assumes that you have Microsoft Windows installed on your computer and that you are familiar with its features and functions.

Many explanations about how to use certain features of the program have been kept to a minimum. Unless otherwise stated the procedure for selecting a menu item is as follows:

- 1. Point at (Menu Heading) on the menu bar. Click and drag down to (Command). Release.
- 2. The (Command name) dialog box will appear on the screen.
- 3. Make any selections required by using the list box, check box or clicking on the radio button with the mouse
- **4.** Click on OK with the mouse to accept the entry or on Cancel to cancel the operation.

Making Selections from Menus

Select a menu to display the options available in that menu. If an option is highlighted, you can select

it. If it is grayed, it cannot be selected.

Kodak Photo CD

With the Kodak Photo CD it is possible to convert photographs from 35 mm negatives or slides into digital format. These photographs are written onto a Photo CD disc which can be read into a computer using a Photo CD compatible CD-ROM drive.

Copyright Information

The photographs on the "Personal Photo Viewer" CD are protected by copyright and may only be used for private purposes.

Copying, reproducing, displaying of these photographs in public or use for other commercial purposes requires the written permission of the photographers. Please contact:

<u>Photographer</u>	<u>Image</u>
Thomas Deharde Langemarckstr. 170 28199 Bremen Germany	20, 22, 23, 28, 29, 33-35, 38, 46, 52, 53, 55-57, 81-84, 92-94, 96, 99
Thomas Lerch Geßlerstr. 15 10829 Berlin Germany	1-19, 21, 24-27, 30-32, 36, 37, 39-42, 44, 45, 47-51, 85-90, 95, 97, 98, 100
Anette Rau Ringstr. 14 26954 Nordenham Germany	43, 54, 58-80, 91

Trademark Information

Kodak Photo CD and the Photo CD logo are registered trademarks of Eastman Kodak Company. Microsoft, MS-DOS und Windows are registered trademarks of Microsoft Corporation. The Personal Photo Viewer is a trademark of Software Dynamics GmbH.

Overview

The File Menu

Load Contact Sheet

"Load Contact Sheet" provides a preview of all images of the current Photo CD.

Open

Open is used to load a photo from the Photo CD.

Open Selection

Open Selection is used to open the photos selected on the contact sheet for viewing.

Export

Export is used to export photos selected on the contact sheet or to export the photo in the active window.

Close

Close is used to close an open photo or contact sheet.

Close All

Close All is used to close all open windows.

Printer Settings

Printer Settings is used to select a printer and to set the resolution, paper size and orientation of the photo on the page.

Print

Prints the active photo to the installed printer.

Image Information

When Image Information is selected, information such as filename, path, file format, dimensions, resolution etc. is displayed.

Exit

Exit closes the Personal Photo Viewer window.

The Edit Menu

Select All

Select All is used to select all the photos on a contact sheet for viewing, for export to the hard disk or for inclusion in a slide show. When a photo window is the active window, Select All is used to select the whole photo.

Deselect

Deselect is used to deselect all photos selected on the contact sheet or to remove a selection box from the active image.

Crop

Crop is used to cut a selected area out of a photo.

The View Menu

Status Line

This option turns the status line on or off.

Slide Show Controls

This option turns the slide show control panel on or off.

Zoom In

Zooms in on the photo one step.

Zoom Out

Zooms out on the photo one step.

Zoom To

Zooms to a specific magnification on the photo.

The Window Menu

Cascade

All open windows are layered leaving the title bar visible.

Tile

The available window space is divided equally between the open windows.

Arrange Icons

All icons are rearranged on the bottom of the program window.

Open Windows

Displays a list of all open images and contact sheets.

The Options Menu

Program Settings

Program Settings is used to configure the program options which will appear on startup and to select options for contact sheet display.

Keyboard Lock Settings

Keyboard Lock Settings is used to set a hot key to stop the slide show.

The Help Menu

Index

Displays the index for the Personal Photo Viewer Help file.

Info

Displays copyright information and version number of the Personal Photo Viewer.

The Contact Sheet

Load Contact Sheet

Loads a contact sheet of the current Photo CD.

Selecting Photos from the Contact Sheet

The photos are displayed in a small size on the contact sheet so that you can easily select the photo you want to load, export or include in a slide show.

Open Selection

Open Selection is used to load the photos selected on a contact sheet for viewing.

Export

Export is used to export the active photo or photos selected on the contact sheet to the hard disk.

The Slide Show Control Panel

Size

The Size list box is used to set the size in which Photo CD images will be displayed during the slide show.

Order

The Order list box is used to set the order in which Photo CD images will be displayed during the slide show.

Duration

The Duration edit box is used to set the duration (in seconds) that slides will be displayed on the screen during a slide show.

Lock

The Keyboard Lock is used to lock the keyboard during a slide show.

Play Selection

This option is used to select whether all photos from the Photo CD or only the photos selected on the contact sheet will be displayed during a slide show.

Loop

The Loop option is used to play a slide show continuously (loop on) or only once (loop off).

Control Buttons

Turns the control buttons on or off.

Manual/Automatic Mode

This option is used to play a slide show in either manual or automatic mode.

Start

The Start button is used to start the slide show.

The Tool Bar

The Tool Bar provides quick access to commands contained in the menus by a simple click on the corresponding icon. Additional settings which can be made on the tool bar are:

Size

The Size list box is used to select the size in which photos from the Photo CD are loaded or exported.

Image Type

The Image Type list box is used to select the image type in which photos from the Photo CD are loaded or exported.

Using the Contact Sheet

Load Contact Sheet

The contact sheet provides a preview of all images on a Photo CD. "Load Contact Sheet" is used to load a contact sheet of the current Photo CD in the CD-ROM drive. The photos are displayed in a small size so that you can easily select the photo you want to load, export or include in a slide show.

To load a contact sheet:

- 1. Click on the "Contact Sheet" button on the tool bar.
- **2.** The program automatically finds the location of the available CD-ROM drive. In the case that multiple drives are connected, a list box will appear requesting a drive to be selected.
- 3. The contact sheet window will appear on the screen displaying the photos on the Photo CD in the drive
 - Contact sheet images will be displayed using the size and number of columns which were selected in the Program Settings dialog box.
- **4.** A progress dialog box will appear on the screen during loading of the contact sheet. If you don't want to wait for the contact sheet to finish loading, click on the Cancel button.
- The loading of the contact sheet will then be cancelled and the photos loaded up to the point of cancellation will be displayed on the screen.
- 5. The title bar of the contact sheet window will show "Contact Sheet for (disk no.)."
- **6.** The photos on the contact sheet can now be selected, viewed, exported, printed or displayed on the screen as a slide show.

Note: The progress dialog box is only displayed if the option "Progress Dialog" is selected in the Program Settings dialog box.

Selecting Photos on the Contact Sheet

Using the contact sheet, photos from the Photo CD can be selected for viewing, exporting or for inclusion in a slide show.

The following selection methods are available:

Selecting a Single Photo from the Contact Sheet Selecting a Row of Consecutive Photos on a Contact Sheet Selecting Specific Photos on the Contact Sheet Selecting all the Photos on a Contact Sheet

Selecting a Single Photo from the Contact Sheet

- 1. With the contact sheet open, move the mouse (without clicking on the button) over the contact sheet to the desired photo. Click on the photo. It will appear highlighted in dark gray to show that it is selected.
- 2. Click on another photo with the mouse to select it the previously selected photo will be deselected and the new photo will appear with a dark gray frame to show that it has been selected.
- **3.** The selected photo can now be loaded for viewing by clicking on the Open Selection button or saved to the hard disk by clicking on the Export button.

Note: A single photo can be loaded for viewing by double-clicking it on the contact sheet.

Selecting a Row of Consecutive Photos on a Contact Sheet

- 1. With the contact sheet open, move the mouse (without clicking on the button) over the contact sheet to the first photo of the desired selection.
- 2. Click on the mouse and while holding the mouse button down, drag the selection box around the desired photos.
- 3. All the photos within the selection box will be selected and displayed with a dark gray frame.
- 4. The selected photos can now be loaded for viewing by clicking on the Open Selection button or

saved to the hard disk by clicking on the Export button.

Selecting Specific Photos on the Contact Sheet

- 1. With the contact sheet open, move the mouse (without clicking on the button) over the contact sheet to the desired photo. Click on the photo. It will appear highlighted in dark gray to show that it is selected.
- **2.** Hold the Ctrl-Button down and click on any other photos on the contact sheet you wish to select. The photos will appear with a dark gray frame to show that they are selected.
- 3. The selected photos can now be loaded for viewing by clicking on the Open Selection button or saved to the hard disk by clicking on the Exportbutton.

Selecting all the Photos on a Contact Sheet

- 1. Load the contact sheet by clicking on the "Load Contact Sheet" button on the tool bar.
- 2. Choose Select All from the "Edit" menu.
- 3. All the photos on the contact sheet will be selected and displayed with a dark gray frame.
- **4.** The selected photos can now be loaded for viewing by clicking on the Open Selection button or saved to the hard disk by clicking on the Export button.

Open Selection

The "Open Selection" command is used to load the photos selected on the contact sheet for viewing.

To load selected photos from the contact sheet:

- 1. Load the contact sheet and select the photos you want to view.
- 2. Select the desired image typee and size that the photos should be loaded in by making the appropriate selections in the list boxes on the tool bar.
- 3. Click on the "Open Selection" button on the tool bar.
- 4. If you want to cancel the loading operation, click on the "Cancel" button in the progress dialog box.

Export

"Export" is used to export selected photos from the contact sheet.

To export photos from the contact sheet:

- 1. Load the contact sheet and select the photos you want to export.
- 2. Select the desired image type and size that the photos should be exported in by making the appropriate selections in the list boxes on the tool bar.
- 3. Click on the "Export" button on the tool bar.
- **4.** Select the directory and subdirectory for the exported photos.
- **5.** Select the file format. The current program version supports the formats BMP, TIFF, PCX and JPEG.
- 6. Click on OK to accept.
- 7. If you want to cancel the export operation, click on the "Cancel" button in the progress dialog box.

The Tool Bar

The Tool Bar provides quick access to commands contained in the menus by a simple click on the corresponding icon. Additional settings which can be made on the tool bar are:

Image Size

The Size list box is used to select the size in which photos from the Photo CD are loaded or exported.

The following sizes are available:

Size: 128 x 192 Pixel

256 x 384 Pixel 512 x 768 Pixel 1024 x 1536 Pixel 2048 x 3072 Pixel

Image Type

The Image Type list box is used to select the image type in which photos from the Photo CD are loaded or exported.

The following image types are available:

Image Type: 256 Grayscales

Full Color

The File Menu

Load Contact Sheet

The contact sheet provides a preview of all images on a Photo CD. "Load Contact Sheet" is used to load a contact sheet of the current Photo CD in the CD-ROM drive. The photos are displayed in a small size so that you can easily select the photo you want to load.

To load a contact sheet:

- 1. Select "Load Contact Sheet" from the "File" menu.
- **2.** The program automatically finds the location of the available CD-ROM drive. In the case that multiple drives are connected, a list box will appear requesting a drive to be selected.
- 3. The contact sheet window will appear on the screen displaying the photos on the Photo CD in the drive
 - Contact sheet images will be displayed using the size and number of columns which were selected in the Program Settings dialog box.
- **4.** A progress dialog box will appear on the screen during loading of the contact sheet. If you don't want to wait for the contact sheet to finish loading, click on the Cancel button.
- The loading of the contact sheet will then be cancelled and the photos loaded up to the point of cancellation will be displayed on the screen.
- 5. The title bar of the contact sheet window will show "Contact Sheet for (disc no.)."
- **6.** The photos on the contact sheet can now be selected, viewed, exported, printed or displayed on the screen as a slide show.

Note: The progress dialog box is only displayed if the option "Progress Dialog" is selected in the Program Settings dialog box.

Open

"Open" is used to load a single photo from the Photo CD.

To load a photo from the Photo CD:

- 1. Select the desired image type and size that the photos should be loaded in by making the appropriate selections in the list boxes on the tool bar.
- 2. Choose "Open" from the "File" menu.
- 3. Select the CD-ROM drive from the directory list.
- 4. Click on the desired filename in the files list to select.
- **5.** To see a preview of the photo before it is loaded, click on the "Preview" check box.
- **6.** A preview of the photo will appear in the Preview box. Scroll through the list using the arrow keys on the keyboard to find the desired photo.
- 7. Double-click the filename to load.
- **8.** If you want to cancel the loading operation, click on the "Cancel" button in the progress dialog box.

Open Selection

The "Open Selection" command is used to load the photos selected on the contact sheet for viewing.

To load selected photos from the contact sheet:

- 1. Load the contact sheet and select the photos you want to view.
- 2. Select the desired image type and size that the photos should be loaded in by making the appropriate selections in the list boxes on the tool bar.
- 3. Select "Open Selection" from the "File" menu.
- 4. If you want to cancel the loading operation, click on the "Cancel" button in the progress dialog box.

Export

The "Export" command is used to export the active photo or photos selected on the contact sheet to

the hard disk

Exporting Photos from the Contact Sheet Exporting an Active Photo

Exporting Photos from the Contact Sheet

To export photos from the contact sheet:

- 1. Load the contact sheet and select the photos you want to export.
- 2. Select the desired image type and size that the photos should be exported in by making the appropriate selections in the list boxes on the tool bar.
- 3. Select "Export" from the "File" menu.
- **4.** Select the directory and subdirectory for the exported photos.
- Select the file format. The current program version supports the formats BMP, TIFF, PCX and JPEG.
- 6. Click on OK to accept.
- 7. If you want to cancel the export operation, click on the "Cancel" button in the progress dialog box.

Exporting an Active Photo

To export an active photo:

- 1. With a photo open on the screen, click on it to make the window active.
- 2. Select "Export" from the "File" menu.
- 3. Select the directory and subdirectory for the exported photos.
- **4.** Select the file format. The current program version supports the formats BMP, TIFF, PCX and JPEG.
- 5. Enter a filename in the filename text box.
- 6. Click on OK.

Note: If a file of the same name already exists in the chosen location, a warning message will appear.

Close

"Close" is used to close the active photo or contact sheet.

To close the active window:

- 1. Select "Close" from the "File" menu.
- 2. If any changes have been made to a photo since it was last saved, the message "Save changes to (filename) before closing?" will appear.
- **3.** If no changes have been made, the photo window will be closed and you will be returned to the main program window.

Close All

"Close All" is used to close all active windows in the program.

To close all active windows:

- 1. Select "Close All" from the "File" menu.
- 2. If any changes have been made to a photo since it was last saved, the message "Save changes to (filename) before closing?" will appear.
- **3.** If no changes have been made, one photo window after the other will be closed and you will be returned to the main program window.

Note: This function will also close an open contact sheet.

Printer Settings

"Printer Settings" is used to select a printer and to set the resolution, paper size and the orientation of the photo on the page.

The printer currently installed under Windows will be displayed in the list box.

Note: As the Printer Settings dialog box is accessed through Microsoft Windows, it will not be affected by the Language chosen during installation.

Print

"Print" is used to print the active photo on the screen to the installed printer.

To print a photo:

- 1. With a photo open on the screen, select "Print" from the "File" menu.
- 2. Make the desired selections in the Print dialog box.
- **3.** Click on OK to start printing. A progress dialog box will appear to show that the photo is being sent to the Windows print spooler.

Image Information

Useful information such as file and path name, file type, image dimensions, resolution, image type and file size is available under Image Information.

To see the image information:

- 1. Select "Image Information" from the "File" menu.
- 2. The image information for the current photo will appear.
- 3. Click on OK to return to the main program window.

Exit

"Exit" is used to close the program window.

To exit the program:

- 1. Select "Exit" from the "File" menu.
- 2. If any changes have been made to a photo since it was last saved, the message "Save changes to (filename) before closing?" will appear.
- **3.** If no changes have been made, the program window will be closed and you will be returned to the Program Manager.

The Edit Menu

Select All

Select All is used to select all the photos on a contact sheet for viewing, for export to the hard disk or for inclusion in a slide show. When a photo window is the active window, Select All is used to select the whole photo.

Selecting all the photos on a contact sheet:

- 1. Load the contact sheet with the Load Contact Sheet command from the "File" menu.
- 2. Choose "Select All" from the "Edit" menu.
- **3.** All photos on the contact sheet will be displayed with a dark gray frame to show that they are selected.

Selecting the entire photo:

- 1. Load a photo from the Photo CD using the Open command from the "File" menu or using the Open button on the tool bar.
- 2. Choose "Select All" from the "Edit" menu.
- **3.** A dotted line will appear around the entire photo to show that it is selected.

Deselect

"Deselect" is used to deselect a selection of photos made on the contact sheet or to remove a selection box on a photo.

Deselecting photos on the contact sheet:

- 1. Select photos on the contact sheet using the mouse or "Select All" from the "Edit" menu.
- 2. Choose "Deselect" from the "Edit" menu.
- 3. All photos on the contact sheet will now be deselected.

Deselecting a selection box:

- 1. Load a photo from the Photo CD using the Open command from the "File" menu or the Open button on the tool bar.
- 2. Draw a selection box on the photo with the mouse.
- 3. Choose "Deselect" from the "Edit" menu.
- 4. The selection box will be removed from the photo.

Crop

"Crop" is used to cut out a selected area on a photo.

To crop a photo:

- 1. Load a photo from the Photo CD using the Open command from the "File" menu or using the Open button on the tool bar.
- 2. Select the area you wish to crop by making a selection box with the mouse.
- 3. Choose "Crop" from the "Edit" menu.
- 4. The selected area will be displayed in a new window with the filename "TEMP00X".
- **5.** The cropped file can now be saved to disk using the Export command from the "File" menu or using the Export button on the tool bar.

The View Menu

Status Line

This menu command turns the status line on or off.

The "Status Line" provides information about program functions and what is taking place on the screen. For example, if the cursor is moved over the control panel or through the menus, the function of each element is described on the status line.

To show the status line:

- 1. Select "Status Line" from the "View" menu. A check mark will appear beside the menu entry to show that it is selected.
- 2. The status line will appear on the bottom of the program window.

Note: The status line can be turned on or off as a startup default under Program Settings in the "Options" menu.

Slide Show Controls

The "Slide Show Controls" menu command is used to turn the slide show control panel on or off.

The control panel contains all necessary functions for running a slide show.

To show the slide show control panel:

- 1. Select "Slide Show Controls" from the "View" menu. A check mark will appear beside the menu entry to show that it is selected.
- 2. The control panel will appear on the bottom of the program window.

Note: The slide show controls can be turned on or off as a startup default under Program Settings in the "Options" menu.

Zoom In

The "Zoom In" command is used to magnify the image one step.

To zoom in on a photo:

- 1. Select "Zoom In" from the "View" menu.
- 2. The photo in the active window will be displayed magnified one step.

The following zoom levels are available:

```
20%, 25%, 33%, 50%
100%
200%, 300%, 400% - 1600%
```

Note: For fast zooming to a higher zoom level, use the (+) key on the numeric keyboard.

Zoom Out

The "Zoom Out" command is used to reduce the view of the image one step.

To zoom out on a photo:

- 1. Select "Zoom Out" from the "View" menu.
- 2. The photo in the active window will be displayed in a lower zoom level.

The following zoom levels are available:

```
1600%, 1500%, 1400% - 200%
100%
50%, 33%, 25%, 20%
```

Note: For fast zooming to a lower zoom level, use the (-) key on the numeric keyboard.

Zoom To

"Zoom To" is used to zoom in or out to a specific zoom level on a photo.

To select a zoom level:

- 1. Click on the "Zoom To" button on the tool bar.
- **2.** A dialog box will appear showing the current zoom level. Select the desired zoom level from the list box and click on OK.

The following zoom levels are available:

```
20%, 25%, 33%, 50%
100%
200%, 300%, 400% - 1600%
```

The Window Menu

Cascade

When the "Cascade" command is used, all files, image windows or contact sheets are layered leaving the title bar visible.

Tile

When the "Tile" command is used, the available window space is divided between the number of files, images or contact sheets open.

Arrange Icons

If multiple files are open on the screen, they can be minimized to icons which will appear on the bottom of the program window.

When the "Arrange Icons" command is selected, all icons will be lined up on the bottom of the program window.

Open Windows

At the bottom of the Window menu, a list of the current files, images or contact sheets open will appear. Select one from the menu to either restore it from an icon or to display it as the active window.

The Options Menu

Program Settings

The following settings can be made in the Program Settings dialog box:

Display Screen Units Startup Action

Contact Sheet

Display mouse coordinates Draw image while loading Status Line Progress Dialog Slide Show Controls

Note: All the settings made in the Program Settings dialog box will be saved when you quit the program and will be used as defaults the next time the program is loaded.

Startup Action

The program startup screen can be configured In this list box.

For example, if the program information screen should appear on startup, select "Info" from the list box.

Display Screen Units

The screen units used to display measurements can be set in this list box. For example, the photo width and height displayed under "Image Information" are shown in the screen unit set.

Screen units available are:

Inches, Cm, Pixel, Points, Picas.

Contact Sheet

In this section it is possible to select options for the Contact Sheet.

The Contact Sheet can be displayed using contacts of varying sizes and number of columns. Select a size from the Size list box and the number of columns from the Columns list box.

Display mouse coordinates

When this option is selected, the mouse coordinates of a selection box are displayed on the status line.

Draw image while loading

When this option is selected, the photo will be displayed while loading from the Photo CD. When this option is not selected, only the progress dialog will be displayed during loading and the complete photo will be displayed when 100% progress is reached.

Status Line

When this option is selected, the status line will appear on the bottom of the program window on startup.

Progress Dialog

When this option is selected, the progress dialog will appear on the screen during processing of any operation. If it is not selected, only an hourglass will be displayed to show that the computer is working.

Slide Show Controls

When this option is selected, the slide show control panel will be displayed on the bottom of the program window.

Keyboard Lock Settings

The "Keyboard Lock Settings" option is used to set the hot key for the slide show. This hot key is active when the lock button on the slide show control panel has been selected. When the keyboard is locked, it is not possible to stop the slide show with the Esc button or other standard keyboard commands.

Note: The keyboard lock should be used when a slide show is running on an unattended computer system.

Note: Standard keyboard commands which are used by Windows, such as Alt+Esc or Alt+Ctrl+Del, **cannot** be deactivated with the "Lock" option.

The Help Menu

Index

This option shows the Personal Photo Viewer Help file index.

To display the Help file:

- 1. Select "Index" from the "Help" menu.
- 2. The Personal Photo Viewer help file will appear.
- 3. Select the desired topic from the list provided or use the Search function to locate a particular topic.

Info

This dialog box contains copyright information and the version number for the Personal Photo Viewer.

To see the Personal Photo Viewer information window:

- 1. Select "Info" from the "Help" menu.
- 2. The Personal Photo Viewer information window will appear.
- 3. Click on OK to close the dialog box and to return to the program window.