

R A D I O N I C S

READYKEY® K6100 Readykey for Windows™

Photo ID Module Datasheet

Windows™ is a trademark of Microsoft Corporation

Loronix ® and ImageShare II® are registered trademarks of Loronix Information Systems, Inc.

Notice

The material and instructions in this manual have been carefully checked for accuracy and are presumed to be reliable. However, Radionics, assumes no responsibility for inaccuracies and reserves the right to modify and revise this manual without notice.

It is our goal at Radionics to always supply accurate and reliable documentation. If a discrepancy is found in this documentation, please mail a photocopy of the corrected material to:

Radionics,
Technical Writing Department
1800 Abbott Street
Salinas, California 93901

Radionics is a division of Detection Systems, Inc.

UL Listings

UL 294 - Access Control System Units

UL 1076 - Proprietary Burglar Alarm Systems

Trademarks

Windows™ and Windows NT™ are trademarks of Microsoft Corporation
Microsoft®, Windows® 95, and MS-DOS® are registered trademarks of Microsoft Corporation

Novell™ and Netware™ are registered trademarks of Novell, Inc.

Pentium® is a registered trademark of Intel Corporation.

The Radionics logo is a registered trademark of Radionics, a division of Detection Systems, Inc.

Contents

This Datasheet	5
Equipment and Requirements	5
About the Installation	7
Inserting Photos.....	8
Creating a Photo Bitmap Image.....	8
Assigning a Bitmap to a Person.....	8
Loading a Photo	8
Cropping the Photo.....	9
Troubleshooting.....	9
The colors are incorrect in my photos	9
Visual Verification.....	10
To Enable Visual Verification on doors.....	11
Changing the Visual Verification Options	12
Show photos when Access Authorized	12
Show photos when Access is Denied.....	13
Show photos for Personnel Trace	13
Troubleshooting Visual Verification	14
I cannot get the Visual Verification popup to appear when a ID Device is presented.	14
I enter my password but cannot Allow Access.	14
ID Card Template Designer	15
Description.....	15
Designing ID Cards.....	16
Opening Stored Card Templates.....	16
Selecting the Card Size and Orientation.....	16
Setting the Background	18
About the ID Card Template Designer Window.....	18
About the Objects	18
Adding an object from the object list.....	19
Switching Between Objects	19
Repositioning and Removing Objects.....	19
Changing the Object Order.....	19
To temporarily view a covered or hidden object:.....	19
To change the order of the objects:.....	20
Re-sizing Object Containers	20
Editing the Object Properties	20
Properties for All Objects which contain Text.....	20
Properties for Bitmap Objects	21
Properties for ID Photograph Objects	21
Grid and Snap to Grid.....	21
Storing your Card Template design	22

Printing a Sample Card.....	23
Selecting the Printer	23
Setting Up.....	23
Printing	24
Print Size Mismatch	24
Printing ID Cards.....	25
Selecting the ID Card Printer	25
Printing Tips.....	26
To Print:	26
Appendix A - Using Barcodes on ID Cards	27
Using Barcodes for a Readykey for Windows System	27
System Requirements	27
Selecting a Barcode Field in the Personnel Application	27
Barcode Dimensions	27
To Add a Bar Code to an ID Card Template Design	28
Entering Barcode Values in the Personnel Application	28
Entering the Barcodes as Valid Keycodes	28
Printing Barcodes for General Use	29

This Datasheet

This data sheet covers all the image handling software available with Readykey for Windows except for the Alarm Graphics which are detailed in the *Alarm Graphics Datasheet*.

Radionics Readykey offers two types of Photo ID Options:

A K6110-P, the Loronix Photo ID option which is used in conjunction with the Loronix Image Share II system.

Or

A K6110-PID, the Readykey Photo ID option which is part of the Readykey for Windows system itself.

For use with the Loronix Photo ID option (K6110-P), please consult the documentation supplied with the Loronix software, or contact Loronix Technical Support for details concerning Card Layout Design. All questions concerning the operation for the Loronix software need to be directed to Loronix Technical Support. Loronix Technical Support may be reached at 800-567-6649 or 970-259-6161. Radionics Technical Support can only help adjust the Readykey Photo Badging Option (K6110-PID) and items specific to the Readykey for Windows system itself.

The following features are included:

Photo ID allows the importing and display of an image for each personnel record. This requires adequate storage space on your computer hard drive.

Visual Verification allows an operator to compare a person's appearance with the image stored in the personnel database. When a keyholder presents their key, Visual Verification displays their image in a popup window on the PC. This is set per door in the **Installer** application. It can be set to respond to *Access Authorized*, *No Access*, or *Personnel Trace*. If the keyholder has access disallowed the operator can choose to **allow access** (requires password with *LOCK/UNLOCK* privilege) or **disallow access**.

The **ID Card Template Design** application allows the design and printing of credit card sized access cards directly from the personnel database. Cards are designed using the **ID Card Template Design** application.

The **ID Card Printing** is done from the **Personnel** application by clicking on the **Print ID Card** button and selecting a template.

Both the sample card printing from the **ID Card Template Design** application and the ID Card Printing from the **Personnel** application can be tested on a normal paper printer before using the card printer.

Equipment and Requirements

The Photo ID module described in this datasheet is a purchased feature of Readykey for Windows. The additional Readykey modules are already present on your system and are activated by a password that can be purchased over the telephone.

You will require a method of capturing images, for example a digital camera, scanner or video-capture hardware. The capture media used for your system will need to be capable of saving the image as a bitmap image.

The Digital Camera tested by Radionics Technical Support is:

Sony® Digital Mavica, Model MVC-FD71.

To print ID cards you will need an ID card printer. To print on the current Readykey proximity cards ensure that your printer can print on cards up to 1.5mm thick. Also check the maximum usage life of the print head.

The ID Card Printer tested by Radionics Technical Support is:

DataCard®, Model ImageCard Express™, p/n 709683.

Note: A digital camera and an ID card printer may need permanent connections to your PC serial and parallel ports. Ensure that you have spare ports available for this purpose. If you do not then contact your computer supplier and have them installed.

If you have Loronix hardware and software installed it will integrate directly with Readykey for Windows provided you have purchased the Loronix Photo ID option (K6110-P) to program your dongle correctly.

If you have purchased the Readykey Photo ID module (K61110-PID), the integration is handled internally within the Readykey for Windows system.

With Photo ID installed, Readykey for Windows can store a 238(W) x 224(H) pixel bitmap with every personnel record. This takes space on your computer hard disk; the following table tells you how much space is required. The figures do not include space taken by the Readykey for Windows software or any other software:

Total Number of Personnel	Disk Space (No Photo)	Disk Space Required (50% of Photos)	Disk Space Required (All Photos)
4000	15 Mb	124 Mb	234 Mb
8000	30 Mb	248 Mb	468 Mb
10000	38 Mb	311 Mb	585 Mb
18000	68 Mb	560 Mb	1.0 Gb

Note: The above are per division. 1Gb (Gigabyte) = 1024 x 1Mb (Megabytes).

Your display must be able to display a minimum of 32767 colors so that it can show the bitmaps in the correct colors.

CAUTION: Readykey for Windows has a recommended free space requirement. We recommend that you have double the database size available on your disk as free space at all times. For example if you have 18,000 personnel without photos then, referring to the table above, you will have a database size of 68Mb this means that you require 2 X 68Mb = 136Mb of free space. For more information refer to the *Readykey for Windows PC Specification datasheet* or the *Readykey for Windows System Overview Manual*.

About the Installation

With the Photo ID module installed Readykey for Windows can store a 238(W) x 224(H) pixel bitmap with every personnel record.

If you have the Photo ID module then the **Grab Photo** button is displayed in the **Personnel** application (see below).

To view the images check the **Display Photo ID** check-box.

You might want to leave Photo ID switched off during normal operation because it may slow your PC.

The screenshot shows the 'Personnel : MAIN SYSTEM DATABASE' application window. The window title bar includes 'Personnel : MAIN SYSTEM DATABASE' and a close button. The menu bar contains 'Utilities', 'Division...', 'Copy Personnel...', 'ID Device...', 'Personnel Information...', 'Reports', and 'Help'. The main area displays the following information:

- Last Edited on : 01/11/99
- Trace :
- Record No. : 32
- Last Name : DOE JD
- First Name : JOHN D JD
- Department : NONE.
- Workgroup : NONE.
- Access group : PRODUCTION WORKER STAFF
- Personnel Type:
 - Personnel :
 - Visitor :
- Start date :
- End date :
- Key code : 12345678
- Pin no. : 3828
- Display Photo ID
- Photo ID image: A small grayscale photo of a baby wearing sunglasses.

At the bottom of the window, there are several buttons: Search, Help, Grab Photo, Print ID Card, Close, Previous, Next, Show Info/Access, Add, Change, Delete, and Clear. The status bar at the very bottom shows '1 Records found. - Ready.' and 'Id Device : READYKEY'.

Note: In a multi-PC installation, once the images are loaded into Readykey for Windows they can be viewed on any PC-workstation.

Inserting Photos

Creating a Photo Bitmap Image

Readykey for Windows requires an image of 238(W) x 224(H) pixels in a bitmap (.bmp or .dib) format. The image can come from several sources:

1. A digital camera.
2. A scanner (used to scan a photograph of the person).
3. Video capture hardware, connected to a camera.

Each of the above will be supplied with software and instructions. Contact the vendor, not Radionics, if you have questions regarding the setup and use of the capture media.

Assigning a Bitmap to a Person

To access the correct personnel record:

1. In the Readykey for Windows main window double-click the Personnel icon.
2. Make sure that the correct division name is displayed in the title bar. Select **Division...** to switch divisions if necessary.
3. Select the record type, **Personnel** or **Visitor**
4. Click the **Clear** button followed by the **Search** button to bring up all the records; alternatively click the **Clear** button and present the key to the desktop reader (or CNC).
5. For new records enter the details as explained in the on-line help.

Then, add a photo as follows:

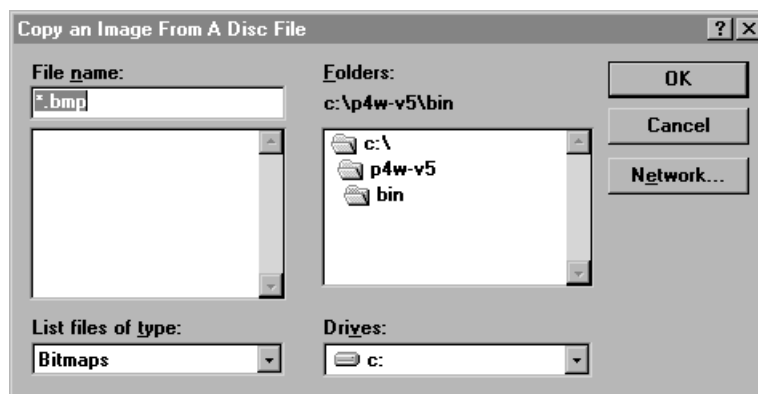
6. Select **Display Photo ID** by placing a check in the box.
7. Select the **Grab Photo** button and a 'Copy an Image From a Disc File' window opens.

Loading a Photo

To load a photo you must have first created an image and stored it on disk as a bitmap.

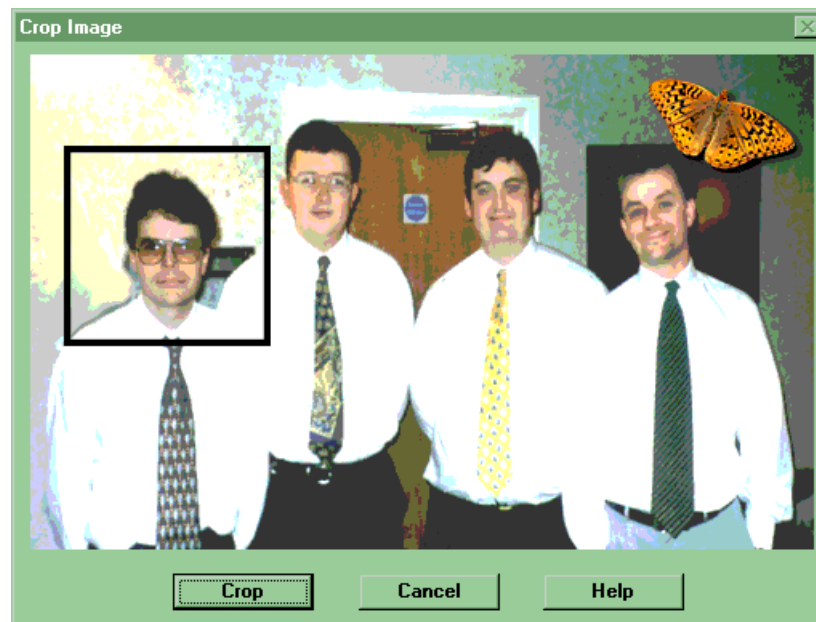
One way to create bitmaps is to install a digital camera and use the software supplied with it to generate them.

1. To load a photo click on the **Grab Photo** button in the Personnel window and the following dialog box should appear:



2. Select the correct file format from the **List Files of Type** box.
3. Select the **Drive** and **Directory** where the files are stored.

4. Select the required file name from the list and choose **OK**.
The image should then appear in a dialog box as shown.



Cropping the Photo

The highlight box on the photo indicates the portion of the image that will be stored and displayed by your Readykey for Windows software.

Note: If your photo is too large or too small for the crop-box then use the software you used to create the photo to change its size. The part you want should fill 238(W) x 224(H) pixels.

To crop the photo:

1. Click at the center of your selection to move the crop-box.
2. When you are happy with the selection, click on the **Crop** button.
3. This returns you to the **Personnel** application. The selected image should be displayed in the Photo ID box. Click on the **Change** button to save the image with the current record.

Troubleshooting

The colors are incorrect in my photos

If the colors are not correct on your photos then your computer may not be able to display the minimum of 32,767 colors. Contact your computer supplier about improving the graphics performance of your computer.

Visual Verification

Visual Verification is designed to display an image of the keyholder when they try to access specific doors. The operator can then compare the photo with their appearance for visual confirmation before allowing entry. An example of the dialog box that appears is shown below.



To use Visual Verification you must have already entered the images in the **Personnel** application according to the Photo ID section of this manual.

Visual Verification is integrated into the **Alarm** application. The behavior of this option is controlled from three places:

1. In the **Installer** application under **Doors**. Visual Verification must be attached to specific doors.
2. In the **Alarm** application under the **Change Settings** menu. These settings decide when the **Visual Verification** popup is displayed (Access Denied, Personnel Trace, or Access Authorized).
3. In the **Visual Verification** Popup window. This is the active part of the application. The operator is given the option of Allowing or No Access (disallowing access).

Note: Only use Visual Verification on sites which are directly connected to Readykey for Windows (hard wired). Visual Verification will not operate satisfactorily over a dial-up connection.

To Enable Visual Verification on doors

To enable Visual Verification for a particular door:

1. Select **Doors** in the **Installer** application and the following window is displayed:

2. Select the correct division from the **Divisions...** menu.
3. Select the correct site from the **Sites:** drop down box.
4. Select the correct **Door Controller** from the drop down box
5. Click on the correct door in the **Doors on Controller** box
6. Then to enable the Visual Verification place a check in the **Visual Verification** box.
7. Click on the **Change** button.

Repeat this procedure for every door you wish to monitor.

Notes:

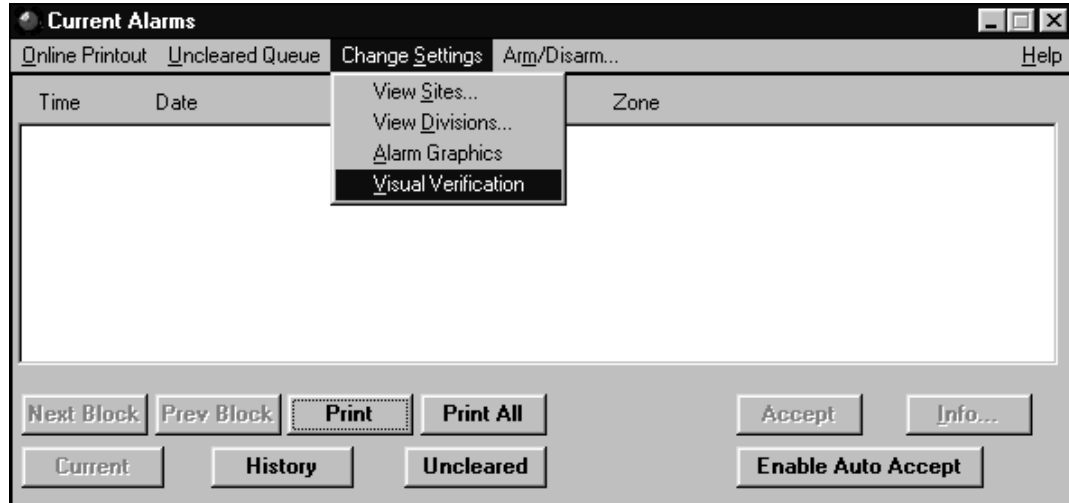
1. For Visual Verification to work the **Alarm** application must be active
2. Be careful not to enable this for too many doors, especially if you choose to use the **Access Authorized** setting. If you do, the number of Visual Verification windows may slow your computer and, if the operator cannot deal with them quickly enough, they may be out of date before they are cleared.

Changing the Visual Verification Options

The Visual Verification is initially enabled for all access types on the doors you have set above. To set the options either:

Click on the **Change Settings** button on the Visual Verification popup window or:

Select the **Alarm** application and, from the **Change Settings** menu, select **Visual Verification** (see below).



Either of these methods will display the following dialog box.



These three options are described below.

Show photos when Access Authorized

This setting shows Visual Verification for personnel who have a valid ID Device and who have already been allowed access. This option can be used to check that ID Devices are only being used by their authorized owners.

To clear the popup, click on the **OK** button or wait for it to time-out.

Show photos when Access is Denied

This option can be used by guards to allow access out of hours.

This setting shows Visual Verification of personnel who have been denied access. An example of the popup window is shown below.



Pick one of the following two options:

1. Select the **No access** button to keep the door locked.
2. Select the **Allow Access** button and enter your password in the dialog box that appears or present your ID Device to the administration reader.

For the operator to be able to allow access they must have the privilege to **LOCK/UNLOCK** doors in the **Admin** application under **Operators, Set-up Privileges**.

Note: if you do not provide a valid password the door remains locked and the keyholder must use their ID Device again to give you another opportunity to allow access.

Show photos for Personnel Trace

This setting shows Visual Verification for personnel who have the trace enabled in the **Personnel** application.

Troubleshooting Visual Verification

I cannot get the Visual Verification popup to appear when a ID Device is presented.

There are two possible causes:

1. Cause: The Alarm application is not running.
Description: The Visual Verification is part of the **Alarm** application and so does not operate until it is running.
Solution: Start the **Alarm** application from the main window.
2. Cause: None of the options in the Change Settings dialog box are selected.
Description: The three options in the dialog box are all the possible options for triggering the Visual Verification. If none of them are selected the Visual Verification will not operate.
Solution: Select the **Alarm** application and from the **Change Settings** menu and select **Visual Verification**. Select the relevant options then choose **OK**.

I enter my password but cannot Allow Access.

- Cause: Your password does not give you the privilege to lock and unlock doors.
- Description: For an operator's password to allow access they must have the privilege to **LOCK/UNLOCK** doors. This is set in the **Admin** application under **Operators, Set-up Privileges**.
- Solution: Ask the system supervisor to change your privilege.

ID Card Template Designer

Description

The **ID Card Template Design** application allows you to design card templates for the automated printing of access key-cards.

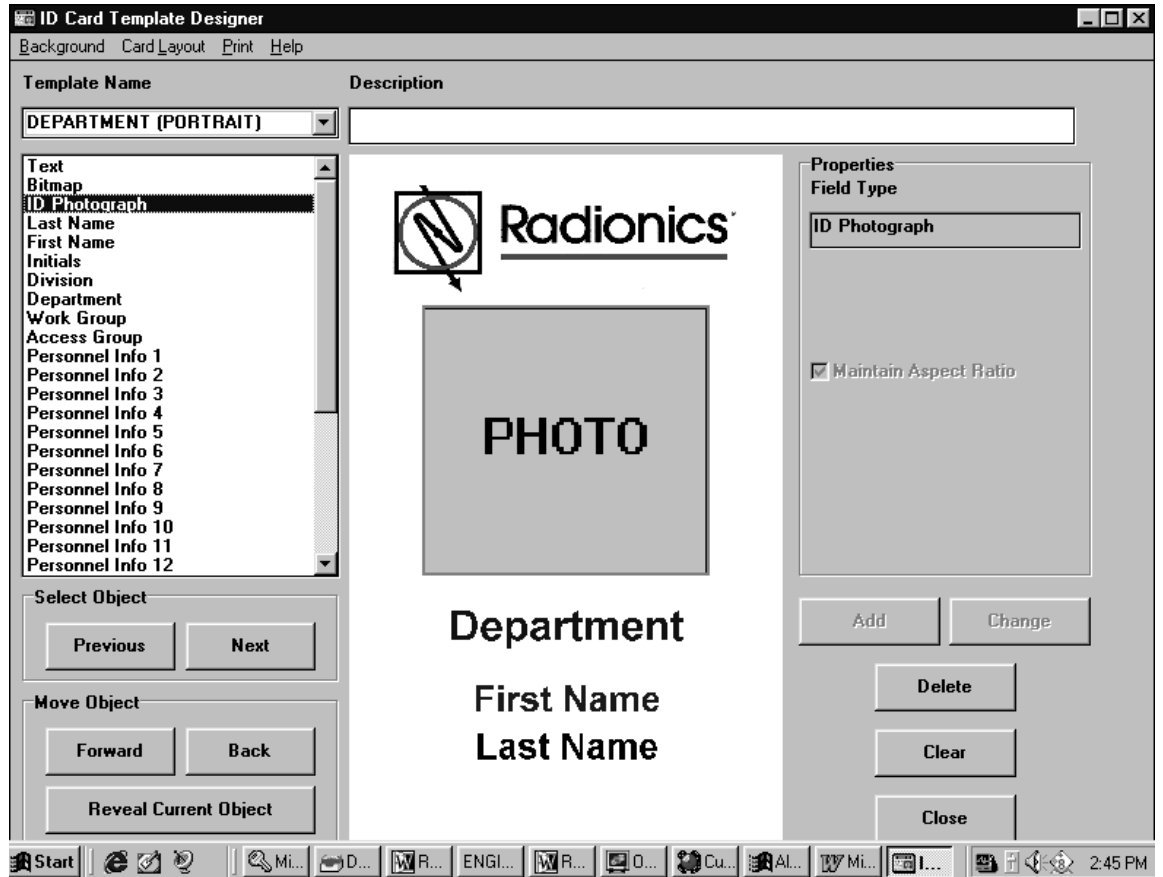
Access cards such as the Readykey proximity device are credit card sized. You will need an ID card printer to print them.

Once designed the templates are used by the **Print ID card** option in the **Personnel** application. As each card is printed the details are inserted from the current personnel record into the template.

Note: There is a small area of the card where printing is not advised. In this area, the micro-chip in the card causes the card surface to be slightly uneven. Refer to the *CARD PRINTING TIPS* label supplied with the cards for details.

Designing ID Cards

The ID Card Template Design application window is shown below.



Before you start you will need to know:

1. The printable area of the card in centimeters or inches, and
2. Whether you want to design the card in portrait or landscape (the graphic above shows portrait).

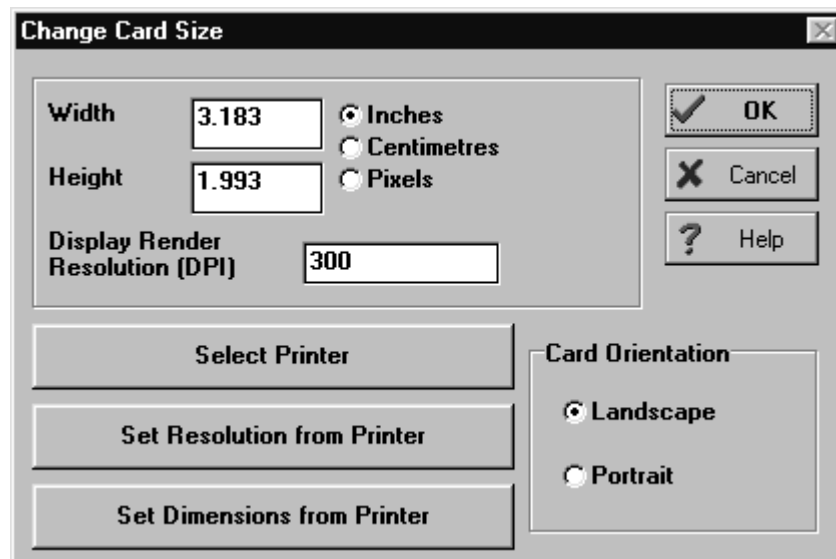
Opening Stored Card Templates

To retrieve a previously designed card click on the down arrow on the **Template Name** list box and select the template name.

The relevant design should appear. If there are no names in the list box then no previously designed card templates are available.

Selecting the Card Size and Orientation

To begin designing the card from the **Card Layout** menu select **Change Size** and the following dialog box should appear:



Note: The **Select Printer**, **Set Resolution from Printer** and **Set Dimensions from Printer** buttons will only operate correctly if you have already installed your printer. If you have not installed your card printer then do so now, by using the instructions supplied with it.

1. Click on the **Select Printer** button
This brings up the printer setup dialog box. This is specific to your printer; see your printer instructions.

2. Make your changes and click the **Close** button
3. Select the **Card Orientation** between **Landscape** and **Portrait**.
4. Click on the **Set Resolution from Printer** button.

Always use the set resolution from printer button before using the set dimensions from printer. The resolution setting only affects the screen display and the accuracy of the dimensions calculations.

CAUTION: Before setting the dimensions from your printer make sure that you have the card printer selected. If, for example, you set the dimensions to A4 from an A4 printer then this will use a large amount of your computer's memory. This may cause 'out of memory' errors.

1. Click on the **Set Dimensions from Printer** button.
This takes the card size from the printer settings. If you want to manually select the card size then:
 2. Select the measurement units by selecting the **Inches**, **Centimetres** or **Pixels** buttons. Notice how, as you click on the three buttons, the values in the **Height** and **Width** boxes recalculate.
 3. Type in the size of your card by clicking in the **Height** and **Width** boxes, deleting the value and typing the new value.
 4. Click on the **OK** button when you are finished.
 This returns you to the **ID Card Template Design** application and adjusts the display to your new settings.

Setting the Background

To select a background for your template you can either use a colored background or a bitmap but not both. To choose a background either:

Click **Select a Background Color**, click on the color and click **OK**.

Or:

Click **Load a Background**, select a Windows Bitmap file (.bmp) and click **OK**.

Note: The **ID Card Template Design** application scales background bitmaps to fill the card. If your background bitmap is not the same size as the card this can lead to disappointing results. To avoid this ensure that your bitmap is close to (if not the same as) the size in pixels displayed in the **Card Layout, Change Size** dialog box.

About the ID Card Template Designer Window

1. The **Design Name** list box allows you to select a previously designed template. To save a template type its name here, give an optional description in the **Description** box, and click **Add** at the bottom of the form.
2. The **Object List** at the left edge of the designer gives all the possible object types. To put an object on the card drag it to the **Card Template Design Window** (the large area to the right of the list). To remove an object, click on it and press the delete key or click on it and drag it back into the object list.
3. The **Properties** area changes dependent on the type of object selected. Use it to view or change the properties of the currently selected object.
4. The **Select Object** area contains two buttons **Previous** and **Next**. These buttons step through all the objects on the template. They can be used instead of clicking on the object with the mouse.
5. The **Move Object** area is used for moving objects relative to each other. Placed objects are stored in order with the most recent at the front. This can cause other objects to be obscured. To move an object in front of another, click the **Forward** button repeatedly until appears on top. To move an object behind another, click the **Back** button repeatedly until it is behind the other.

Also, in the **Move Object** area: When a hidden or partially covered object is selected it is possible to reveal it by clicking on the **Reveal Current Object** button. When this is active the button changes to **Show Actual Object Order**, click on it to view the actual object order.

About the Objects

The objects in the **Object List** are split into 3 types.

1. **Text** - All the objects except **ID Photograph** and **Bitmap** are text objects. For each text object you can specify the font and font size, the color of the text and the text-background box (the background box can also be set as transparent).

For the object which is labeled 'Text' you can enter the text contents in the template and they will remain the same for every ID card.

All the other text objects match fields in the personnel records and will be replaced at print time with the contents of the current personnel record.

Text objects can also be used to print bar codes; see Appendix A for more details.

Text may be automatically left, right, or centered by clicking on the available three buttons that will appear when a text item is selected.

2. **Bitmap** - This can be a bitmap or a colored area. The bitmap is always resized to the area it is given. It is stored in the template and will remain the same for every ID card.

3. **ID Photograph** - this represents the Photo ID field in the personnel database. It will be replaced at print time with the Photo ID from the current personnel record.

Adding an object from the object list

To add an object:

1. Left-click on the object in the **Object List** and hold the mouse button down.
2. Drag the object across to the **Card Design Window** and release the mouse button.

Switching Between Objects

To select different objects either:


Click on them with the mouse

or:

Click on the **Previous** and **Next** buttons until the object you require is highlighted.

Repositioning and Removing Objects

To reposition an object:

1. Select the object using the mouse (click on it) or using the **Previous** and **Next** buttons.
2. Move your mouse cursor over the object until it changes to a 4-way arrow ()
3. Click on the object and hold the mouse button down.
4. Drag it to the required location and release the mouse button.

Note: You can make sizing and positioning objects more accurate by using the grid and snap facilities under the **Card Layout, Set Up Design Grid** menu. See Grid and Snap to Grid for more details.

To remove an object:

Select it and press the delete key

or:

Drag it to the **Object List**.

Changing the Object Order

The objects are laid over each other on the card design in the order that you added them. Sometimes you may want to view earlier objects or move them forward in front of other objects.

Note: The box around all text fields can be made transparent in the **Change Colour** dialog. See *Editing the Object Properties*.

To temporarily view a covered or hidden object:

1. Select the object (described earlier).
2. Click on the **Reveal Current Object** button.
3. To return to normal click on the **Show Actual Object Order** button.

To change the order of the objects:

1. Select the object you want to move forwards or backwards.
2. Click on the **Forward** button to move it forward in the order of the other objects.
3. Click on the **Back** button to move it backwards in the order of the other objects.

Re-sizing Object Containers

To change the size of the objects (for instance if the text is too large to fit in the box):

1. Move the mouse cursor over the borders of the box until it changes into an arrow with two heads.

For example . . . 

2. Left click and hold down the button.
3. Drag the border of the box to the new size.

Tip: You should ensure that the longest value in that field will fit in the box. For example, for the Last Name field check your personnel database for the longest Last Name. You can then type this into the **Print, Print Options** dialog box to try it for size. To view the results, Choose, **Print a Sample**.

Note: You can make sizing and positioning objects more accurate by using the grid and snap facilities under the **Card Layout: Set Up a Grid**. See Grid and Snap to Grid for more details.

Editing the Object Properties

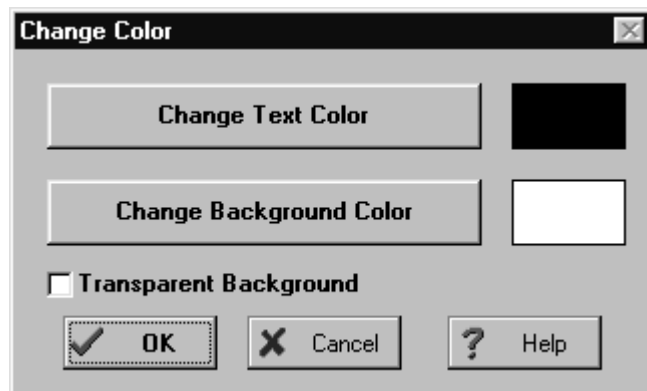
As you select objects the **Properties** area updates to show the properties of the current object.

Note: We recommend that your display has a minimum of 32,767 colors so that it can show the correct colors. If not, then you can still design and print cards correctly but the wrong colors will be displayed on the screen and you may see patterning effects on solid fills.

Properties for All Objects which contain Text

To change the color of a text object and its box:

1. Select the object.
2. For a Text object only, type your text in the **Enter Text** box.
3. Click on the **Change Color** button in the **Properties** area.



Note: The areas to the right of the buttons indicate the current colors.

4. Click on the **Change Text Color** button.
5. Click on a color and click **OK**.
6. The text-background box color is optional so either place a check in the **Transparent Background** check box to switch off the text-background box or, click on the **Change Background Color** button and choose a color for the text-background box.

Properties for Bitmap Objects

You can either have these as a solid colour by selecting a color or insert a bitmap from your disk.

To use a solid fill:

1. Select the object.
2. Click on the **Change Color** button in the **Properties** area.
3. Select a colour and click **OK**.

To insert a bitmap:

1. Click on the **Load Image** button.
2. Select a Bitmap (.bmp) file and click on **OK**.

The bitmap file appears in the area assigned to the object. If you change the size of the bitmap area then the bitmap stretches to fit in the area. See *Re-sizing Object Containers*.

Properties for ID Photograph Objects

You cannot make changes in the property box. The **Maintain Aspect Ratio** check box is displayed for your information. This means that although the object can be resized, the image in it cannot be stretched or squashed out of shape.

Grid and Snap to Grid

The grid and snap features work together to allow accurate positioning of the objects.

The grid places temporary horizontal and vertical ruling lines over your design. These lines are guides to help you arrange and size your objects.

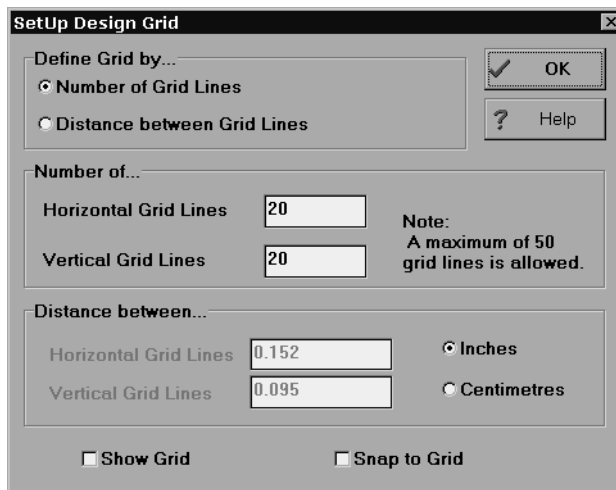
The snap-to-grid feature snaps the cursor to the intersections in the grid when it is moving or sizing objects. This forces the objects to change size or position in discrete steps and can help make a card design more neat.

You can use grid and snap independently of each other. If the grid is off and the snap is on then the cursor will still snap to the hidden grid.

You can also vary the spacing of the grid. There are two ways of doing this, you can either set the number of lines on the card or specify the separation of the lines.

To switch on the grid and/or snap to grid:

1. Select **Setup Design Grid** from the **Card Layout** menu and the following dialog is displayed.



2. In the **Define Grid by** box, select between specifying the **Number of Grid Lines** on your design and the **Distance Between Grid Lines**.

Notice that the **Number of...** and **Distance between...** boxes are activated alternately as you click on the two buttons.

3. Depending on which option you picked specify either the **Number of...** horizontal and vertical grid lines, or, the **Distance between...** the lines by typing them into the active text boxes.

Note: The spacing between grid lines can be in centimetres or inches. To select, click on the **Inches** or the **Centimeters** button in the **Distance between...** box.

Finally:

4. Select **Show Grid** to display the grid.
5. Select **Snap to Grid** to make the cursor snap to the intersections of the horizontal and vertical grid lines.

Storing your Card Template design

The **ID Card Template Design** application uses the same methods for storing and retrieving records as the other applications in Readykey for Windows.

To store a design:

1. Give it a name by typing into the **Template Name** box.
2. Give it a description (optional).
3. Click on the **Add** button at the bottom of the window.

To change a design:

1. Make your changes.
2. Click on the **Change** button at the bottom of the window.

Note: The number of card design templates that you can store is not limited by the Readykey for Windows software. You can have as many as you need provided the storage hard disk space is available on the Readykey Server.

Printing a Sample Card

The **ID Card Template Design** application can print sample cards using user defined fields. Before printing you should read *Printing Tips*.

Selecting the Printer

Except for transaction printing, Readykey for Windows always prints to the default Windows printer. If you have more than one printer connected to your PC then you can change which printer you are printing to as follows.

Note: The **ID Card Template Design** application cannot print to a line printer (such as those used for transaction printing).

For Windows for Workgroups 3.11:

To select the default printer:

1. In the **Main** window of the Windows Task Manager, double click on the **Control Panel**.
2. In the **Control Panel** double click on the **Printers** icon.
3. Select the required printer from the list and click on **Set as Default Printer**.
4. Click on **OK** and close **Control Panel**.

Note: You will need to close and restart the application you are printing from for the changes to take effect.

For Windows 95 and Windows NT4.0:

To select the default printer:

1. From the **Start** menu select **Settings, Printers**.
2. Right-click on the required printer.
3. If the **Set as Default** option has a check against it then the printer is the default. Without making any changes, close the Printers window.
4. If it does not have a check against it then click on **Set as Default** to make it the default.

Setting Up

You can print your design on an ID card or, using the **Print Size Mismatch** feature, on another installed printer. See *Print Size Mismatch*.

Readykey for Windows always prints to the default Windows printer. If you want to change this then refer to *Selecting the ID Card Printer* above.

The **Print Options** dialog allows you to enter test values for all the fields in a Personnel record. This is designed to allow the testing of ID card templates with realistic values. We suggest that you test your designs with some standard names, the shortest names in your database and the longest names. You may also want to try several different photos to test the print quality.

To set up the objects for your sample print:

1. If it is not already open then open the **Print Options** dialog by selecting **Print Options** from the **Print** menu.
2. Enter sample values against all the objects used in your design.
3. Click on **Load a Sample ID Photo** and select a bitmap (you can always use the one provided if none are available).

4. When you are satisfied click on **OK**.

All the values set in the **Print Options** dialog are stored while the **ID Card Template Design** application is open. This allows you to try the same values on more than one template. To clear the **Print Options** dialog and return to the default values close and re-open the **ID Card Template Design** application.

Printing

To print a sample:

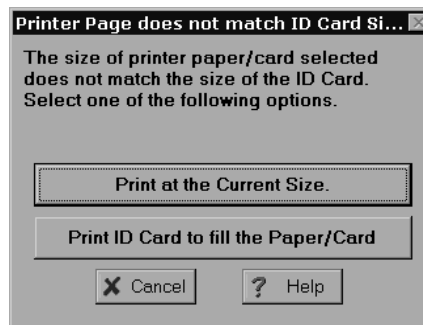
1. Click on **Print, Print a Sample** to display a preview image of your card with the sample fields inserted.
2. Then either click on **OK** to print or click on **Cancel** to continue editing the template.

When you press **OK** the card will either print or the **Print Size Mismatch** dialog box will be displayed. This is described in the next section.

Note: If the printer leaves a non-printed border around the card then there may be an option to remove this in the printer setup dialog. Note however, that some printers cannot print to the edge of the card.

Print Size Mismatch

If the printer page size is different from the design size then Readykey for Windows will display the **Print Size Mismatch** dialog box before it prints.



You can use the **Print Size Mismatch** dialog box intentionally to print samples to other printers. It may also appear unintentionally if you do not have the card printer set as your default, or if the card size is incorrect on the template.

To select a printer see the *Selecting the ID Card Printer* section above.

1. To print the design at the current size on the new size page/card, click on **Print at the Current Size**.
2. To scale the design to the size of the current page, click on **Print ID Card to fill the Paper/Card**.
3. To stop the print, click on **Cancel**.

Printing ID Cards

This section is concerned with the day to day printing of ID cards from the **Personnel** application. The **Personnel** application window is shown below.

Personnel : MAIN SYSTEM DATABASE

Utilities Division... Copy Personnel... ID Device... Personnel Information... Reports Help

Last Edited on : 01/11/99 Trace : Record No. : 32

Last Name : First Name :

Department : Workgroup : Access group :

Personnel Type
 Personnel : Start date : Key code :
 Visitor : End date : Pin no. :

Display Photo ID

1 Records found. - Ready. Id Device : READYKEY

If the **Photo ID** module is installed then a **Print ID Card** button is displayed.

Selecting the ID Card Printer

The ID cards are always printed to the Windows' default printer. To set the ID card printer as the default:

For Windows for Workgroups 3.11:

To select the ID card printer:

1. In the **Main** window of the Windows Task Manager, double click on the **Control Panel**.
2. In the **Control Panel** double click on the **Printers** icon.
3. Select the ID card printer from the list and click on **Set as Default Printer**.
4. Click on **OK** and close **Control Panel**.

Note: You will need to close and restart the application you are printing from for the changes to take effect.

For Windows 95 and Windows NT4.0:

To select the ID card printer:

1. From the **Start** menu select, **Settings, Printers**.
2. Right-click on the ID card printer.
3. If the **Set as Default** option has a tick against it then the printer is the default. Without making any changes, close the Printers window.
4. If it does not have a tick against it then click on **Set as Default** to make it the default.

Printing Tips

Install the card printer as a normal printer (follow the manufacturer's instructions).

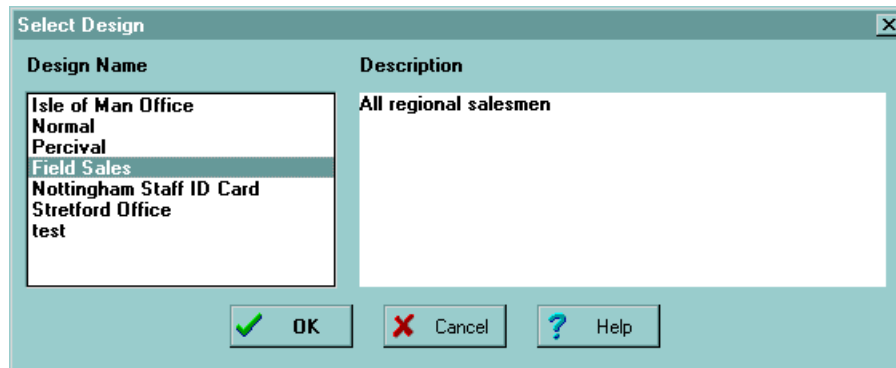
Keep the cards clean and grease-free. Hold the cards by their edges and avoid touching the print surface.

Refer to the *CARD PRINTING TIPS* label supplied with the cards for more details.

If you want to check your design on another (paper) printer before using ID cards then see the *Print Size Mismatch* section above.

To Print:

1. Click on the **Print ID Card** button and, if you have more than one design, the **Select Design** dialog is displayed. If you only have a single design then the preview dialog is displayed immediately, go to point 4.



2. Select from the designs in the **Design Name** box and the description for that design appears in the right-hand box.
3. Click on **OK** to accept your selection and a preview of the card is displayed.
4. Click **OK** to print.

Note: If the printer leaves a non-printed border around the card then there may be an option to remove this in the printer setup dialog. Note, however, that some printers cannot print to the edge of the card.

If the current printer is set to a different page/card size then, when you try to print, the **Print Size Mismatch** dialog will be displayed. Select one of the buttons or click on **Help** for more information.

Appendix A - Using Barcodes on ID Cards

Our objective is to allow you to use the **Personnel** application, coupled with the **ID Card Template Design** application, to print barcodes. These bar codes can then be used for another application or be used as access cards for the Readykey system by using a Wiegand output barcode reader).

The ID Card Printing from Readykey for Windows relies on special fonts that convert the characters into barcodes.

Using Barcodes for a Readykey for Windows System

The next section describes how to use barcodes as key-codes for a barcode based Readykey for Windows application.

System Requirements

You will require barcode readers with a Wiegand interface between them and the reader input on the door controllers. You will also require a Readykey Administration Kit with a barcode reader and Wiegand interface. You will also need a barcode font that is of one of the following types:

1. "Interleaved 2 of 5"
2. "Code 3 of 9"
3. "Codebar"

The barcode feature is generated by using special True Type fonts that are available from software retailers. Radionics does not supply the barcode fonts.

Selecting a Barcode Field in the Personnel Application

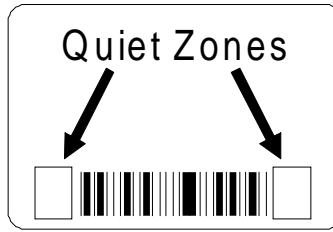
In the **Personnel** application:

1. Click on **Show Info/Access** and select the **Extra Info / Extra Access** button until the **Extra Info** fields are displayed.
2. This indicates that you are looking at the 20 lines of Personnel Info.
3. **Note:** Some of the 20 lines of personnel info may already be in use.
4. Check several personnel records until you are sure that a line is not used. Then select it.
5. Make a note of which Personnel Info record you intend using.
6. Run the **ID Card Template Design** application.

Barcode Dimensions

The following rules apply for printing barcodes for use with a barcode reader:

1. The card must be between 0.25 and 2.5 mm thick normally.
2. The barcode center line should be 8.2mm from the edge of the card.
3. The recommended bar height is 6.4mm and
4. The barcode should have 5.1mm quiet zones at the start and end of the barcode (see below).



To Add a Bar Code to an ID Card Template Design

Use the instructions in the body of this manual to design your card.

Then, to add a barcode:

1. Drag the relevant Personnel Info field onto the template.
2. Change the size and position of the box until it matches the dimension criteria above.
3. With the field selected, select the **Change Font** button.
4. Select the barcode font and set the font size to match the size criteria given above.
5. Save the template by clicking on the **Change** button.

Note: You should observe the dimensional limitations above.

Entering Barcode Values in the Personnel Application

Normal barcode readers only accept the numbers 1 to 9. Any other characters or symbols will cause an error.

In Wiegand format the first 3 digits are reserved for a site number and the remaining 5 digits are a user number:

The site number must be between 0 and 255.

The user number must be between 0 and 65534.

Therefore, '00000000' is the lowest code, '25565534' is the highest code.

If you exceed either of these values you may get repeated codes as the digits are either ignored or added to the site code.

For example:

12345678 is acceptable but

87654321 has an unacceptable site number of 876 which is larger than 255.

You should always use all 8 digits even if they contain zero characters. If more than 8-digits are used then all but the last 8 digits will be ignored. In addition, if you use numbers outside the ranges given above then you may get unpredictable results.

Entering the Barcodes as Valid Keycodes

Before the barcodes will be recognised by any readers, they must be entered into the key-code field in the **Personnel** application. To do this you must enter the barcodes against the correct personnel as follows:

1. Start the **Personnel** application.
2. Select a person.
3. Click on **Print ID Card** check the preview and click **OK**.
4. Allow the ink to dry.

Ensure that **Personnel** application is running and that the same member of personnel is selected.

5. Swipe the new ID card through your Barcode Admin reader
6. A number should appear in the **Key Code** box in personnel.
7. Click on **Change**.

The barcoded card should now allow that member of personnel into all the areas to which they have access.

Printing Barcodes for General Use

If you are not using the barcodes for barcode readers then the barcode you are using may not be limited to numerals. It may also not be limited to 8 characters in length. If the barcode is for use with another barcode system then it is possible to print the keycode field if the barcode type allows hexadecimal characters.

Please note however that some barcode types require encoding or other special processing between the typed value and the printed value. This is not available in the ID Card Printing provided with Readykey for Windows and so they must be avoided.

A specification of the barcode should be supplied with the barcode font or reader equipment so, unless you are using the barcodes specifically for Readykey readers, you can enter the barcodes according to their specification.

