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C-A OPERATIONS PROCEDURES MANUAL

4.70 Procedure to Perform Enrollment and Removal of Personnel  
in the Iridian EOU 2200 Iris Imager

Text Pages 2 through 21

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Collider-Accelerator Department Chairman Date

J. Reich

#### 4.70 Procedure to Perform Enrollment and Removal of Personnel in the Iridian EOU 2200 Iris Imager

##### 1. Purpose

This procedure details the required sequence to ENROLL and REMOVE users from the Iridian EOU 2200 Iris Imager database. Only properly trained personnel will be allowed to enroll someone in and remove someone from the imager database. After enrollment a digital version of the users iris is stored in internal memory and is retrieved for identification purposes upon the user presenting their iris to the remote CCD camera at the experiment primary gate. When the user has their iris scanned, and the stored image matches the current image, they will be allowed access to the key tree. Currently, available memory allows for 4,000 enrollees.

##### 2. Responsibilities

2.1 The C-A ESHQ Division shall be responsible for assigning an enrollment administrator.

##### 3. Prerequisites

None

##### 4. Precautions

None

##### 5. Procedure

**Note 1:**

Steps 5.11 through 5.34 have been extracted from the Iridian Iris Access 9.10 Entry Access Control System - Operations Guide, (400-3.2). Do not follow page numbers referred to in these steps.

Procedure for enrolling a user.

5.1 An authorized person wishing to be enrolled shall contact the C-A ESHQ Division or MCR. The ESHQ Division or MCR shall proceed to contact the enrollment administrator.

5.2 The administrator shall proceed to enter the enrollment software application (called IrisWin 2000) on the server computer.

The program is multilevel password protected.

**Note 2:**

Enrollment can only be performed by an administrator enrolled at the "enroll user" level.

- 5.3 Enrollment is the most critical aspect of system operation. All future iris recognitions will be affected by the quality of the enrollment. A poor enrollment will result in future rejections.
- 5.4 The decision to enroll one or both eyes is made at the time a subject is enrolled. Once the subject has one eye enrolled in the system, the second eye cannot be enrolled later using the same ID. For example, if you enroll only one eye and later find you would like both eyes enrolled, you must erase the original record and re-enroll both eyes.
- 5.5 The EOU/ROU 2200 Imager utilizes auto-focus and auto-zoom to obtain well-focused images. The EOU/ROU 2200 also provides audible instructions to aid the subject in positioning. Upon start of the enrollment process, an instruction "please look into the mirror" will be heard. The subject should then present an eye within three to ten inches from the EOU/ROU 2200. If the subject is too far from the Imager, an instruction "please move forward a little" will be heard. If the subject is too close, an instruction "please move back a little" will be heard. The subject should remain steady until the process is completed and the phrase "thank you for your cooperation" is heard.
- 5.6 After providing the appropriate password to log into windows, using the standard MCR username and password, proceed to do the following:
- Type in the appropriate password to perform an enrollment and press Enter
  - If your IrisCode template has been added to the Operators Database, select IrisLogon.
  - Present your eye when the logon screen is displayed, and initiate an identification.
- 5.7 You should now see the IrisWin 2000 application as in Figure 1, indicated on the next page, and the icons as shown in Figure 2.

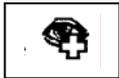
**OR**



Figure 1

	Clicking this button initiates the enrollment process.
	Clicking this button initiates the recognition mode, allowing an eye(s) to be recognized.
	If checked or depressed, this button activates the Live Video mode.
	If checked or depressed, this button deactivates the Live Video mode.
	Clicking this button activates the Online Help feature.

Figure 2

- 5.8 **Note:** Press **Cancel** to cancel the enrollment at anytime throughout the enrollment.
- 5.9 Press the  icon to start the enrollment process.
- 5.10 In the **Enroll - Capture Iris Image** screen, as shown below in Figure 3, you will notice at the top right hand corner, the **right eye** is checked. Inform the subject to present the right eye to the Imager and to be still for at least five seconds.

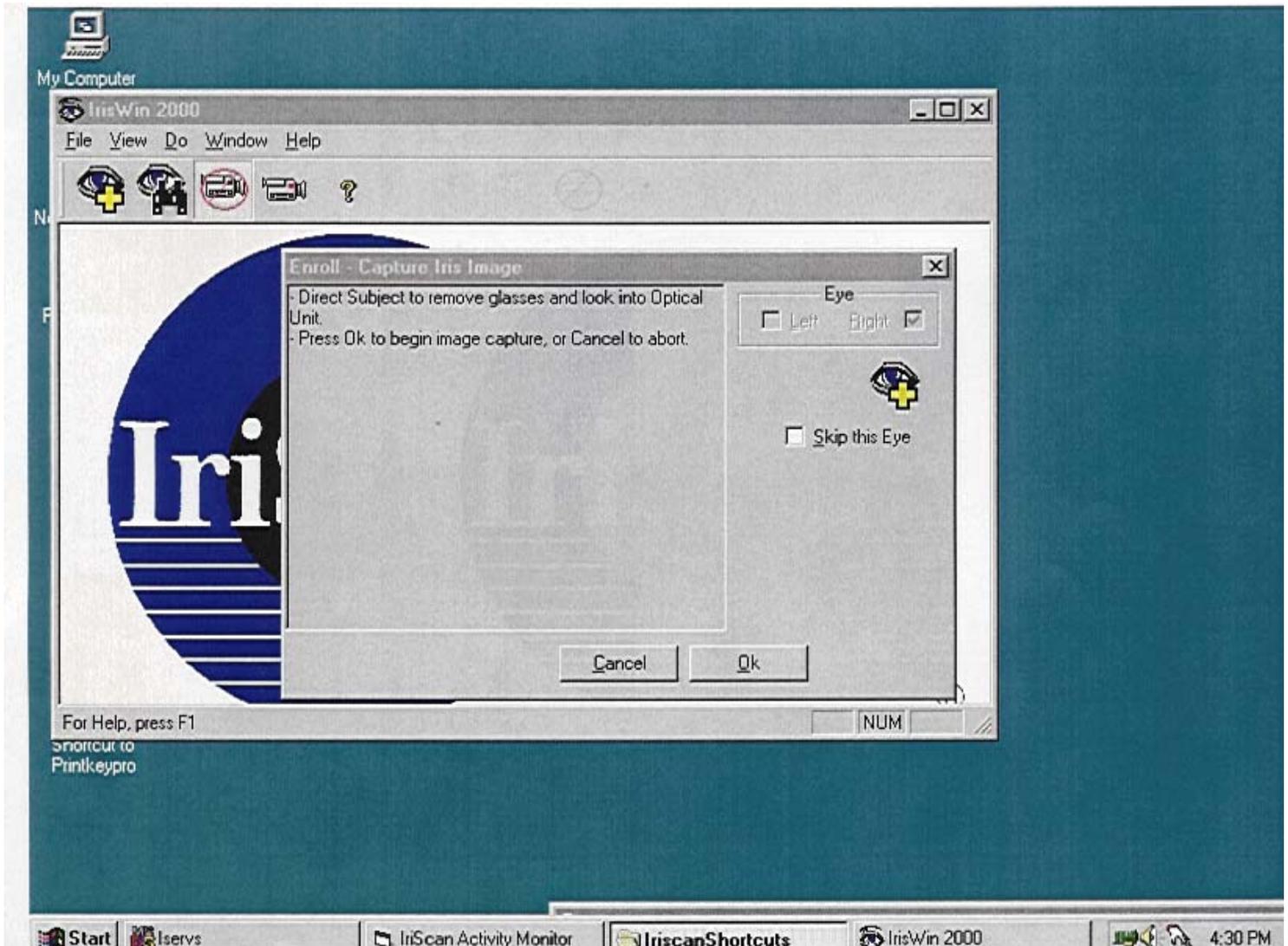


Figure 3

- Note:** You may choose not to enroll the right eye.
- 5.11  Select the **Skip this eye** checkbox if you are not enrolling the right eye.

- 5.12  Click the  button

**Note:** Because the EOU captures three images, you will need to keep looking at the camera until the lights stop flashing.

If the subject is already enrolled in the Master Database, a dialog displays the subject's profile. If this is the case, click **Cancel** to abort the enrollment attempt.

- 5.13  When the enrollment IrisCode template is created from the captured images, the **Enroll – Image Results** box appears.

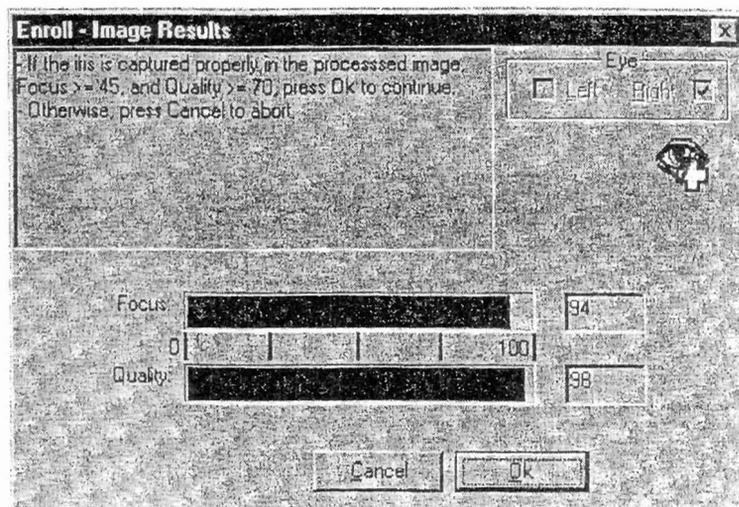


Figure 4: Enrollment Image Results Box

- Check the **Focus** value. If the Focus value is less than 50% click  and try again.
  - Check the **Quality** value. If the Quality value is less than 70% click  and try again.
- 5.14  Click on the blue title bar of the **Enroll – Image Results** box and move it to view the processed image (used to create the enrollment IrisCode template).

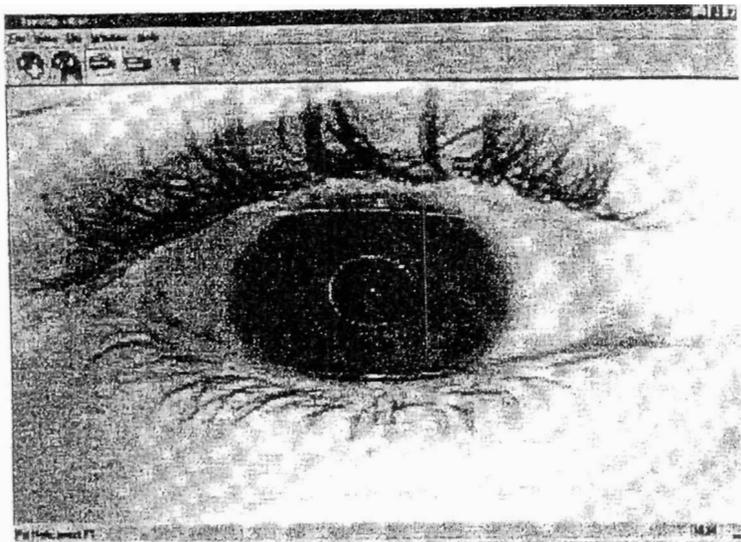


Figure 5: Enrollment Image Showing Localization Overlay

- Verify that the processed image is in focus. If not, cancel the operation and try again.
- Verify that the localization overlay on the image is accurate, that is, it is centered on the iris and pupil (see Figure 5 on page 12). If not, cancel the operation and try again.
- Verify that the image does not contain large specular highlights that obscure the view of the iris. If the iris is obscured, cancel the operation and try again.

5.15

- Click the  button to continue.

5.16

- The procedure for capturing the left eye begins. In the **Enroll - Capture Iris Image** screen, you will notice at the top right hand corner, the **left eye** is checked. Inform the subject to present the left eye to the Imager and to be still for at least five seconds.

You may choose not to enroll the left eye. If so, place a check in the **Skip this eye** checkbox.

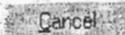
**Note:** Remember, once the subject has finished enrolling one eye and is in the system (i.e., after verification), the second eye cannot be enrolled using the same ID. For example, if you enroll only one eye and later find you would like both eyes enrolled, you must delete the original record and re-enroll both eyes.

5.17

- Click the  button to capture an image of the left eye.

**Note:** If the subject is already enrolled in the Master Database, a dialog displays the subject's profile. If this is the case, click **Cancel** to abort the new enrollment.

When the enrollment IrisCode template is created from the captured images, the **Enroll – Image Results** screen appears.

Check the **Focus** value. If Focus value is less than 50% click  and restart the enrollment.

- Check the **Quality** value. If Quality value is less than 70% click  and restart the enrollment.
- Click on the blue title bar of the **Enroll – Image Results** screen and move it to view the processed image.
- Verify that the image is in focus. If not, cancel the operation and try again.
- Verify that the localization overlay on the image is accurate. If not, cancel the operation and try again.
- Verify that the image does not contain large specular highlights that obscure the view of the iris. If the iris is obscured, cancel the operation and try again.

5.18

- In the next screen, enter a unique ID:

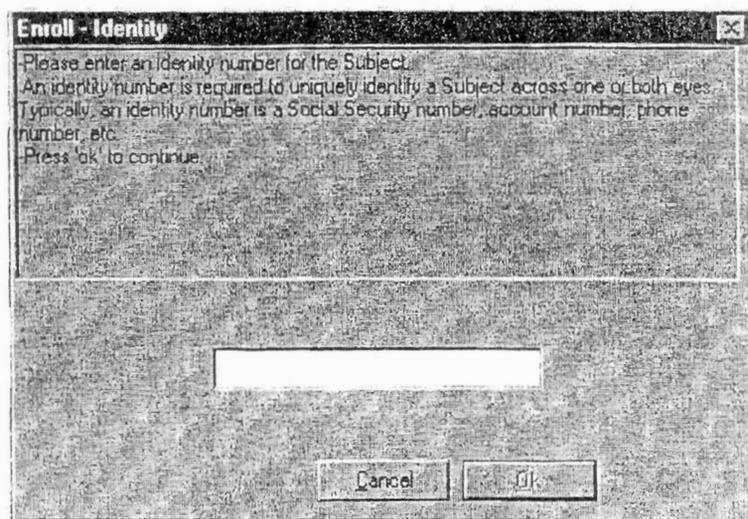


Figure 6: Identity Number Screen

A unique identity number is an identification number that should uniquely identify the enrollee.

**Note:** If you are using the optional Wiegand output at the Remote Units, use only decimal digits and no spaces, letters, or symbols.

5.19

- Click the  button.

If the ID entered has been previously assigned, the following message is displayed:

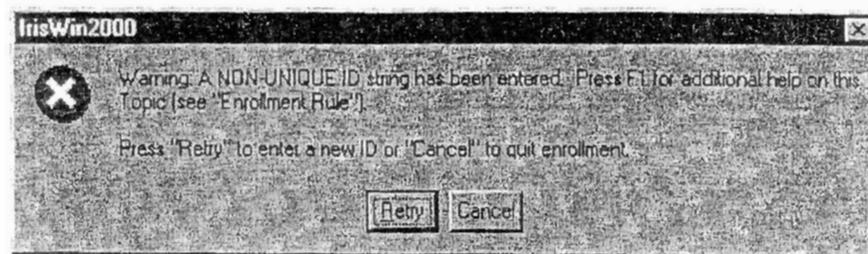


Figure 7: Duplicate ID Number Warning

5.20

- Click **Retry**, then enter a different ID number.

If the ID is unique, the following screen appears:

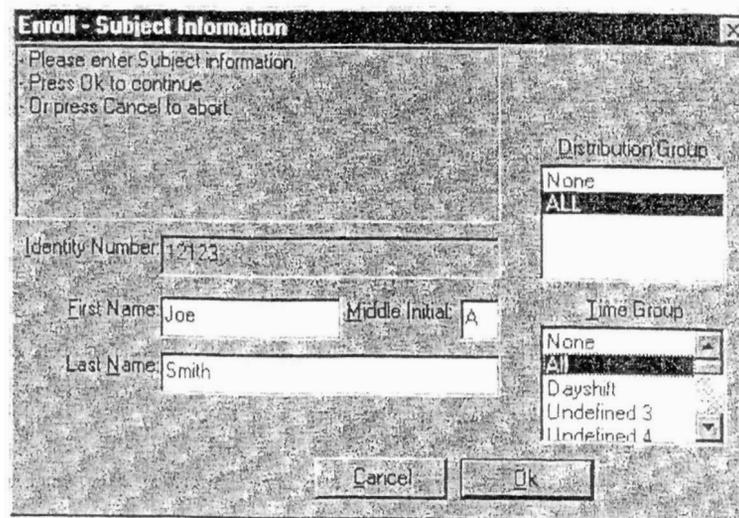


Figure 8: Subject Information Profile for Database

5.21

- Enter the subject's profile data. Start by entering the person's name.

5.22

- Highlight the appropriate **Distribution Group**. The Distribution Group determines which portals the subject is allowed access to.

## Verifying the Enrollment

- 5.23  Highlight the appropriate **Time Group** to allow access in accordance with the subject's access authorization.
- 5.24  Click the  button.

**Caution:** You must verify the subject to ensure the enrollment is successful. Skipping the verification process or verifying only one eye will cancel the enrollment, requiring complete re-enrollment of the subject. The entire verification process must be completed in order for the IrisCode templates to be saved to the database for future recognition.

- 5.25  Instruct the subject to present their right eye to the Imager for verification.

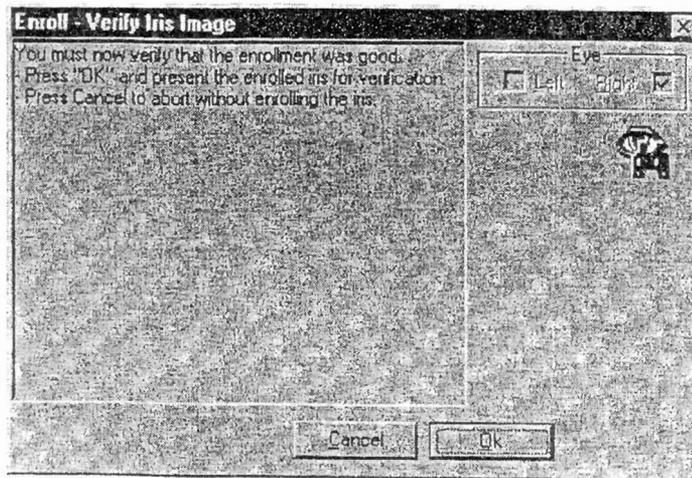
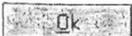


Figure 9: Verify Iris Image Screen for Right Eye

- 5.26  Click the  button to verify the right eye IrisCode template.

If the verification was a success, the following screen appears:

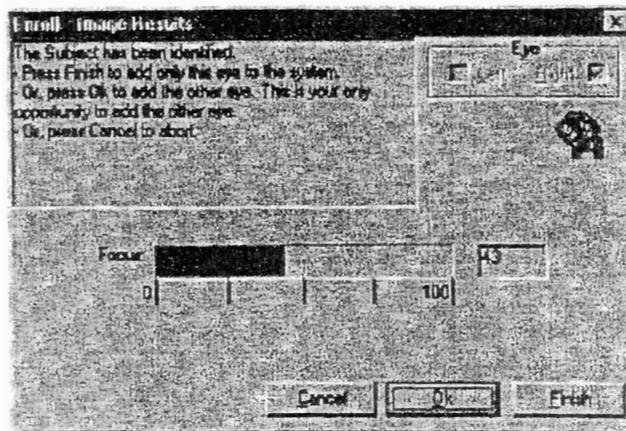


Figure 10: Enrollment Verification for Right Eye

Any Focus value is acceptable.

- 5.27  If the subject was successfully verified, press **Ok** to add the right IrisCode template to the database and proceed to verify the left IrisCode template.

**OR**

- 5.28  Click the **Finish** button to just add the right IrisCode to the database. Clicking this button does NOT add the left IrisCode to the database.
- 5.29  If the subject was not verified, click **Retry** and **OK** to repeat the verification attempt.
- 5.30  Instruct the subject to present their left eye to the Imager for verification.

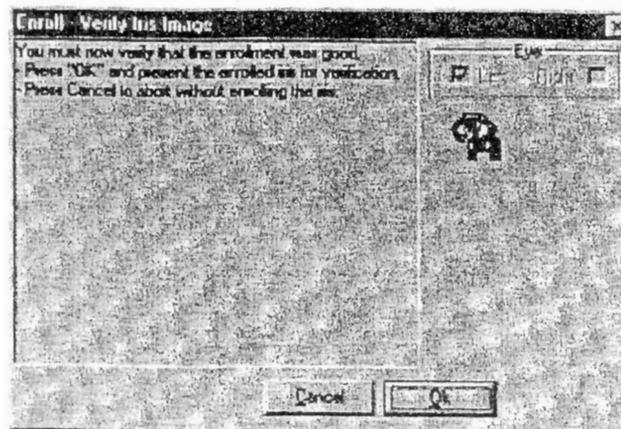


Figure 11: Verify Iris Image Screen for Left Eye

- 5.31  Click the  button to verify the left eye IrisCode template. If this screen appears, the enrollment was a success.

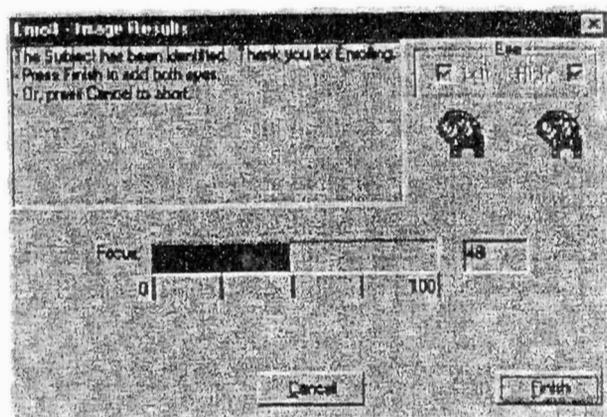


Figure 12: Enrollment Verification for Left Eye

- 5.32  If the enrollee was successfully recognized, press  to add the left IrisCode template to the database.

The optional **Enroll – Custom Information** screen will be displayed, if previously enabled. This screen might not display during enrollment if it is set not to show (please refer to “IrisAccess Control Panel Applet” on page 81).

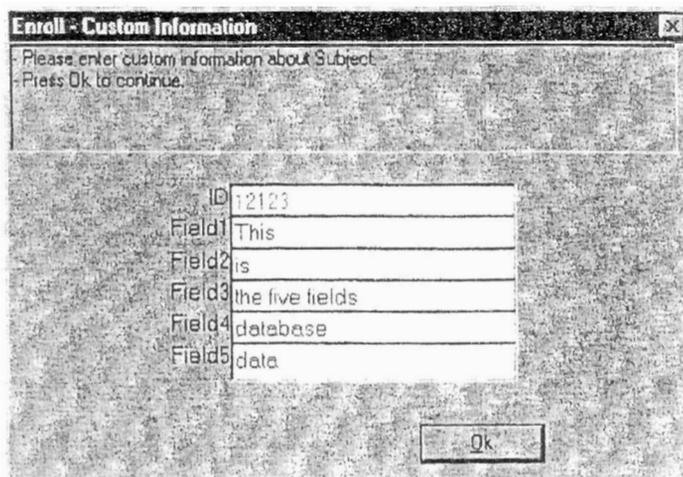


Figure 13: Subject Custom Information Profile for Database

- 5.33  Fill in fields one through five.  
These five fields can be used to hold any text desired.

For example, you can use **Field1** to enter the subject's mother's maiden name.

- 5.34 □ Click .

When the enroll process is completed, the enrolled IrisCode templates are added to the Master Database and downloaded to the appropriate Remote Unit(s). If archive searching is enabled, the search engine is instructed to search the archives for the enrolled IrisCode templates.

- 5.4 Procedure for Removing a User from the Database
  - 5.4.1 The edit users screen is used to delete records in the Admin Master Database. You must be logged in with the superuser status.
  - 5.4.2 Click DMUWIN (see figure 14).
  - 5.4.3 Select Edit > Users (see figure 15).
  - 5.4.4 Select By Name (see figure 15).
  - 5.4.5 Click the Find Records button (see figure 16).
  - 5.5.5 Enter the first 2-3 characters of a last name in the "Last Name" search text box (see figure 17).
  - 5.5.6 Click the "Find Records" button or hit Enter. All records that have last name fields beginning with the same 2 to 3 filter characters are displayed (see figure 18).
  - 5.5.7 Highlight the desired record (see figure 18).
  - 5.5.8 Select the "Delete Selected Record Button" (see figure 18).
  - 5.5.9 Answer Yes in response to the prompt.

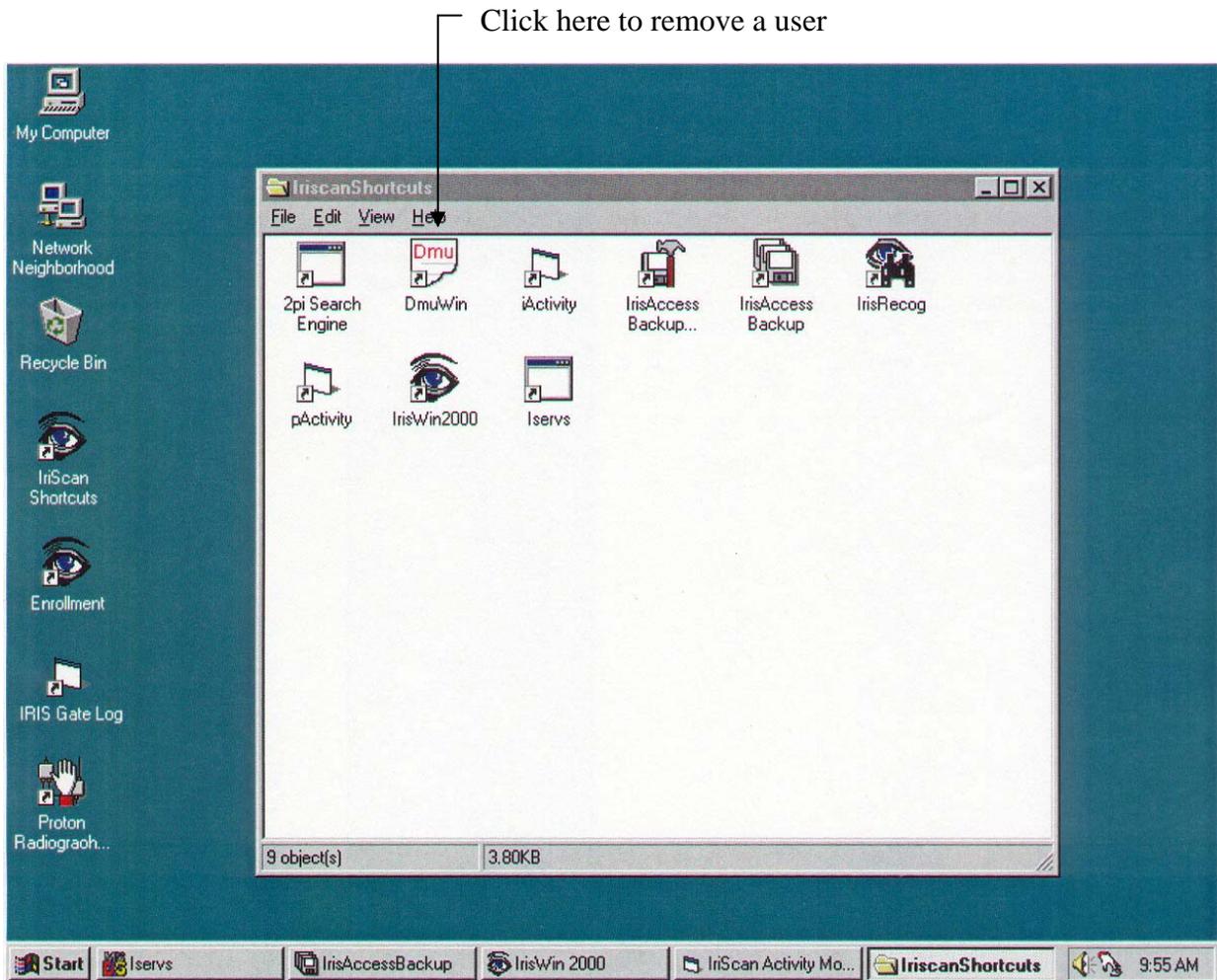


Figure 14

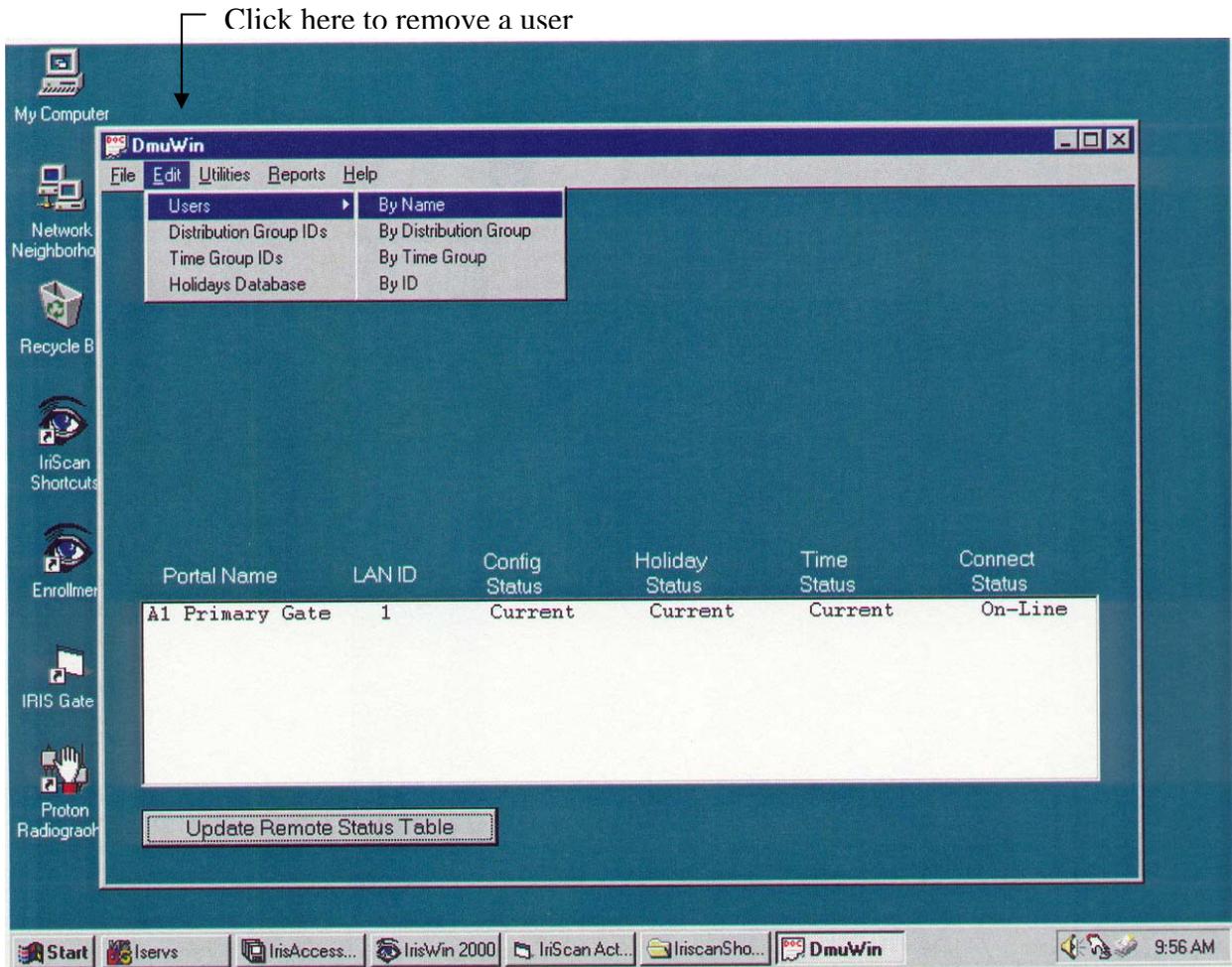


Figure 15

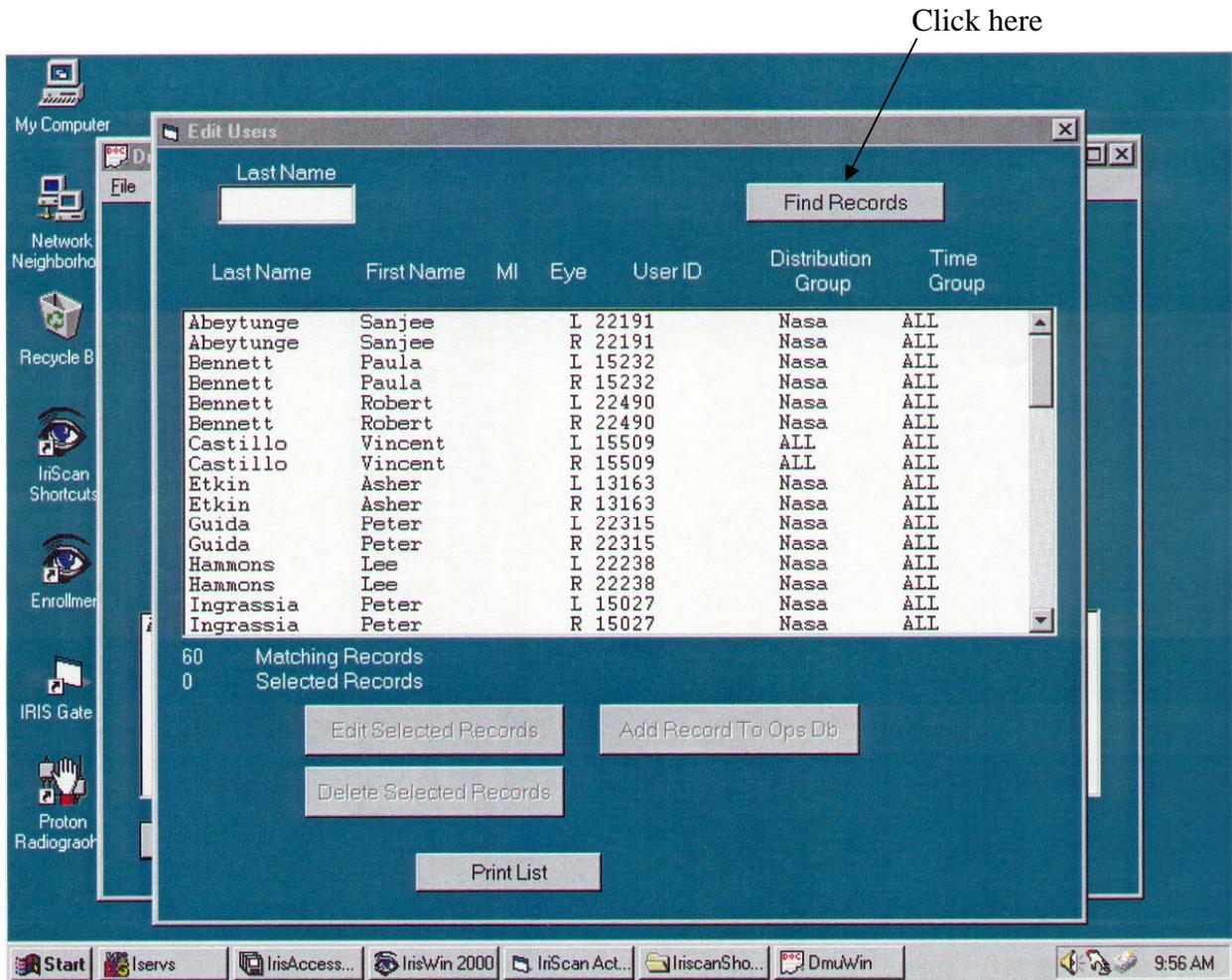


Figure 16

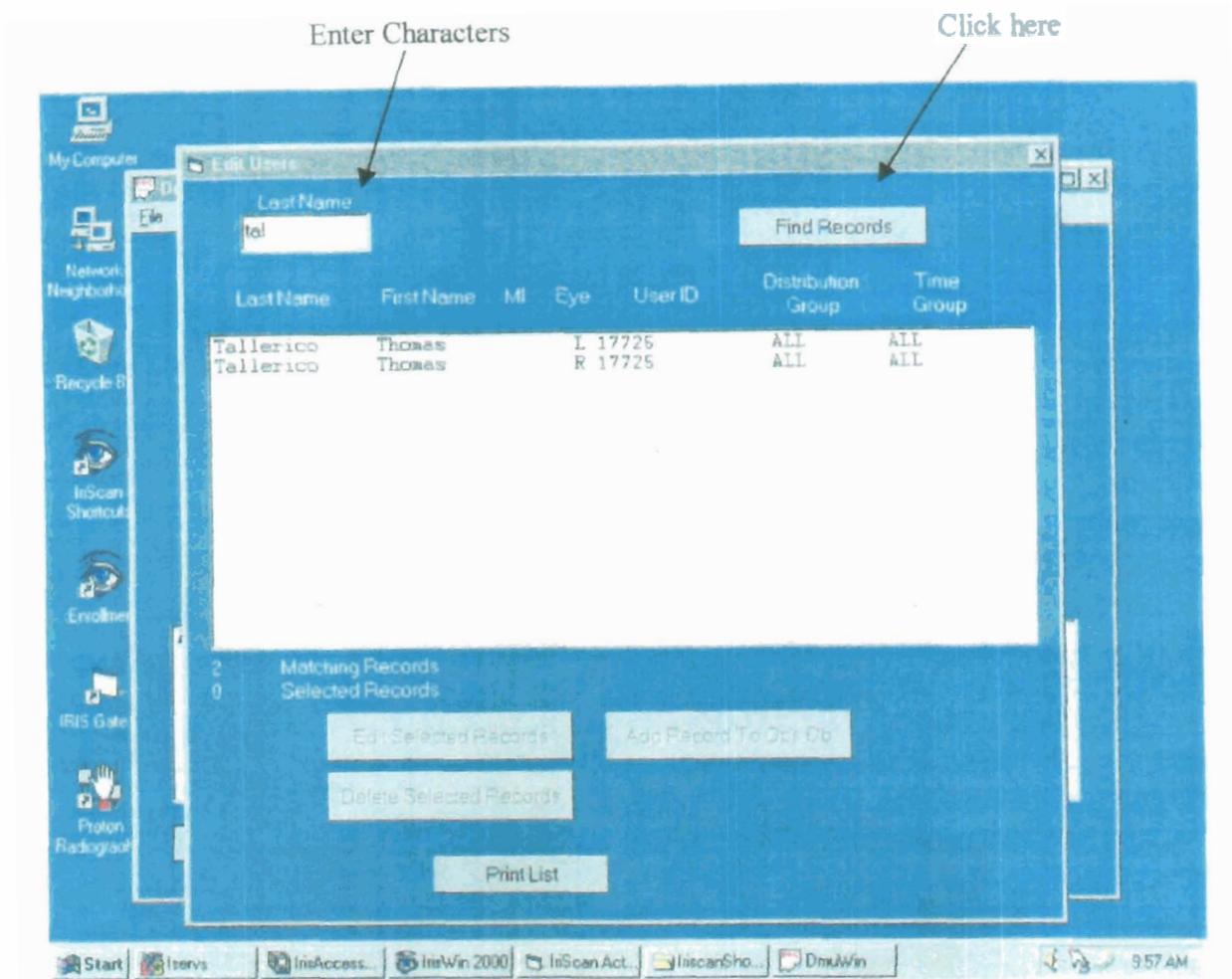
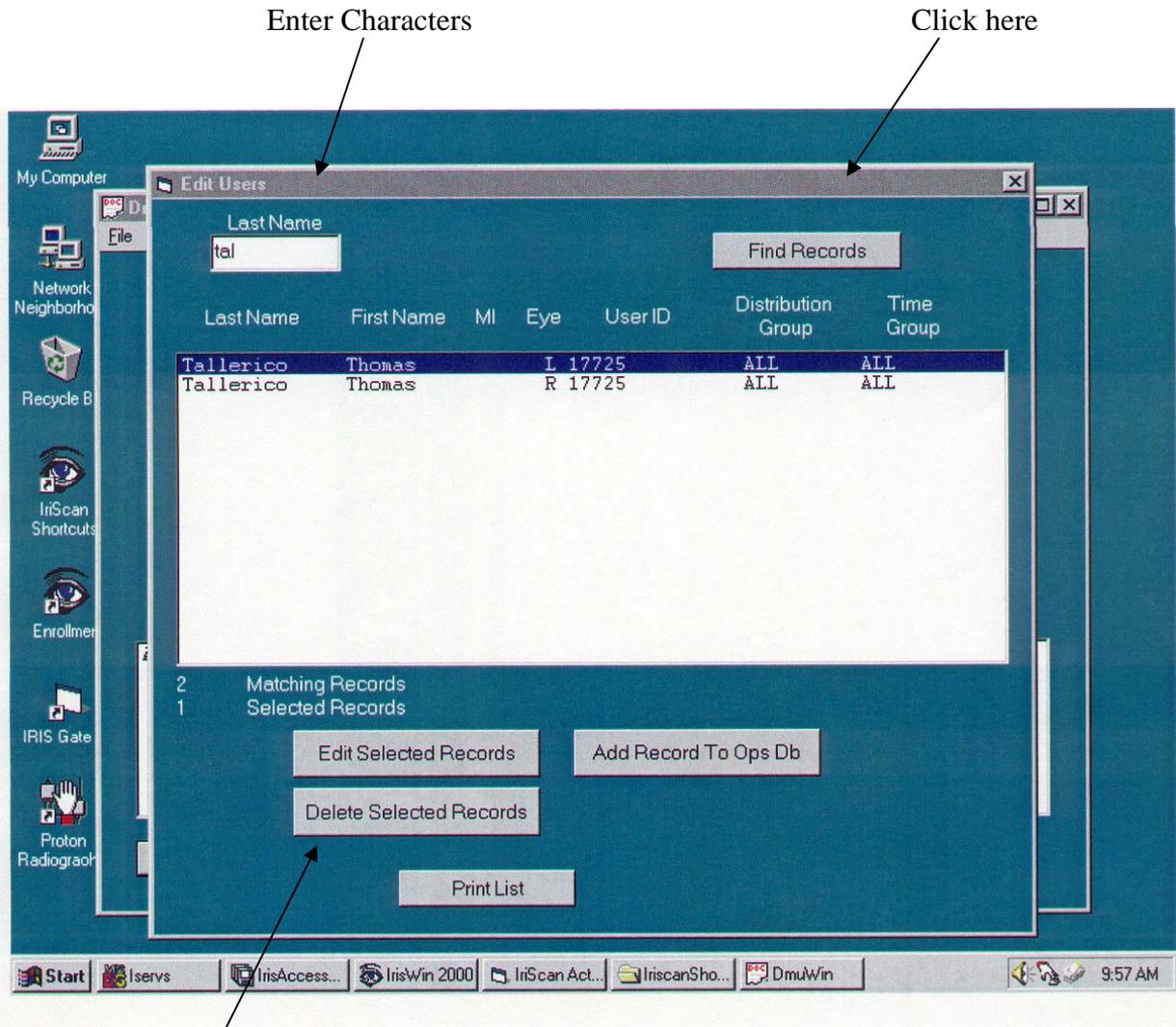


Figure 17



Click here to delete the record

Figure 18

**6. Documentation**

None

**7. References**

7.1 Iridian Iris Access 9.10 Entry Access Control System - Operations Guide,  
(400-3.2).

**8. Attachments**

None