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IEI eMerge™

Photo ID Badging Install and Setup

System Data for Photo ID Layouts

Includes instructions for the magnetic stripe encoding of badges

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Photo ID Requirements List

The hardware, software, and licenses required for IEI eMerge™ Photo ID features are listed below. In addition to the listed items, you will need to have a login username and password to the Network Controller with setup privileges.

NOTE: Magnetic stripe encoding is supported only in V3.3 build 344 and above of the eMerge software.

Hardware

At this release, the Photo ID feature is tested to work with the following devices:

- **PC:** A personal computer running Windows XP Pro (Logitech or Canon Cameras) or Windows Vista (Logitech cameras only), to be used as enrollment/badging station. You will need an administrative account on the PC to install software.
- **Cameras:** Logitech® QuickCam® Orbit AF camera, and the other compatible and tested cameras listed on the following web page:
http://www.iwsinc.com/Support/EPISuite_compatible_hardware.cfm?Device=Image%20Capture
- **Printers:** (optional) For a list of the compatible and tested printers, refer to the following web page:
http://www.iwsinc.com/Support/EPISuite_compatible_hardware.cfm.
- **Badges:** (optional) Blank photo ID badges.

Software and Licenses

- **License file:** To verify that your system has a license file for the Photo ID features, select **Support : Utility : About**, and look for the line "**Badge**" in the **License** section. If that line does not appear in the list of licenses, contact Linear Technical Services at (800) 421-1587 to upgrade your license file.
- **IWS™ software:** The IWS™ EPI Builder runtime software and EPI Builder Designer software, available by purchase from IEI. This software is necessary for creating badge designs.
- **Browser:** Internet Explorer 6 or higher is needed because of the use of an Active X component.
- **AF software:** If you are using a Logitech QuickCam camera, the Logitech QuickCam Orbit AF (autofocus) software, which is provided on the CD with your camera.

Setting Up the Photo ID Features

This section provides Photo ID setup procedures for Logitech cameras and Canon cameras.

Setup Procedure

Install the IWS software and IEI Add-on software components on the PC:

1. If you are a certified systems integrator, call Linear Technical Services at (800) 421-1587 for the **IEI_PhotoID.zip** file.

NOTE: The software in the **IEI_PhotoID.zip** file is compatible with eMerge software version 3.2 or higher. To check your version number in the Security Application, select **Support/Utility : About** to display the **About** page. If your version number is lower than 3.2, contact Linear Technical Services at (800) 421-1587 for the files needed to update your system version.

2. Unzip the file you downloaded at step 1 onto your local hard drive. Inside the folder **IEI_PhotoID** folder, you will find the following three folders:

- **1-Designer_Runtime**
- **2-IEI_Add_on**
- **3-Canon Digital Cameras**

3. Open the **1-Designer_Runtime** folder and double-click the **setup.exe**. Follow the screen prompts to complete this installation. You must accept the license agreement in order to install.
4. Open the **2-IEI_Add_on** folder and double-click the file **setup.exe**. Follow the screen prompts to complete this installation.

Complete the Logitech camera setup:

Refer to the camera documentation and complete the software installation and physical setup and connection of the Logitech QuickCam camera.

Complete the Canon camera setup:

1. Open the **Canon Digital Cameras** folder and double-click the **setup.exe**. Follow the screen prompts to complete the installation. You must accept the license agreement in order to install.
2. When you reach the **InstallShield Wizard Completed** dialog, uncheck the box labeled **Launch EPI Client License Manager now** and then click **Finish**.

If you do not uncheck the box, a license activation dialog will open. Click **Exit**.

NOTE: It is not necessary to install the Canon camera utilities on the PC. The IWS Canon Plug-in will provide sufficient function for creating photo IDs.

3. Refer to the camera documentation and complete the physical setup and connection of the camera.
4. Set the camera shooting mode dial to **AUTO**.
5. Slide the camera mode switch to **Playback (or Preview)** mode.

Designing and Uploading Photo ID Badge Layouts

Design and Upload Photo ID Badge Layouts:

1. Using EPI Designer and data from the personal information records in your eMerge, create a photo ID badge layout and save it.

NOTE: To start EPI Designer select from the **Start** menu, **Programs : EPI Builder Runtime 6 : EPIDesigner**.

See “System Data for Photo ID Badge Layouts” on page 5 for a list of the data fields from the personal information records that you can use in your badge design, and for assistance including user photos and signatures. Refer to the EPI Designer documentation for help working with EPI Designer.

2. Select **Administration : Utility: Photo ID Layout Upload**.
3. Click the **Browse** button to browse to the location of your photo ID layout files.
4. In the Browse dialog box select the photo ID layout file you want to upload and click **Open**.

NOTE: Photo ID badge layout files must end with the .dgn extension and can be no larger than 15 MB. If you have layouts from previous versions of EPI Designer, they can be opened and saved with the current version as “dgn” files.

5. Click **Save**.

System Data for Photo ID Badge Layouts

Using EPI Designer, you can create your own custom photo ID badge layouts.

Selected data fields from the **Personal Information** page can be used as dynamic fields in the photo ID badge layout. The contents of those data fields will print on the badge when it is printed.

Data fields that may be used for dynamic fields in the photo ID layout using EPI Designer are:

- First_Name
- Middle_Name
- Last_Name
- U_Field1 through U_Field 5 (user-defined sections)
- U_Field6 through U_Field20
- **NOTE:** User-defined fields 6 through 20 are supported only in V3.3 build 344 and above of the eMerge software.
- Company_ID (ID#)
- User_Note
- Badge_Name (photo ID layout name)
- Start_Date
- End_Date

- cardid
- facilitycode
- **NOTE:** The cardid and facilitycode fields are supported only in V3.3 build 344 and above of the eMerge software.

In addition to the data fields above, you can include a user photo and a signature image on your badge designs. You can also encode magnetic stripe badges in V3.3 build 344 and above of the eMerge software.

To include user photos and signature images in your badge design:

1. Create a “PhotoID” image type. See **View : Image Setup** in EPI Designer.
2. Create a “Signature” image type. See **View : Image Setup** in EPI Designer.

NOTE: You must create the PhotoID image type first and then the Signature image type. This is because the image type index numbers are hard-coded in this feature.

3. Select **Draw : Dynamic Image** and add a dynamic image for the photo ID to the badge design and set its **Image Type** to **PhotoID**. Leave the **Field Name** blank.
4. Select **Draw : Dynamic Image** and add a dynamic image for the signature to the badge design and set its **Image Type** to **Signature**. Leave the **Field Name** blank.
5. Confirm that the badge layout shows “PhotoID” and “Signature” in the middle of the image locations in the badge design.

NOTE: For further instructions on including signatures on badges see Tech Note 11, “Configuring the Topaz Signature Pad.” This is available in Help. From the **Contents** page click the link for **Technical Documentation**.

6. Complete your badge design and save it.

For specific information on working with EPI Designer and designing badge layouts, refer to the EPI Designer documentation.

Creating Photo ID Badges

This section describes how to create photo ID badges in the Security Application.

NOTE: For information on encoding magnetic stripe cards, see page 9.

Create a photo ID badge:

NOTE: If you are using a Logitech QuickCam camera, make sure that the QuickCam settings are set to an image size of no more than 640x480, and that **Face Tracking** is set to **Follow Me**. This will ensure that the image size remains under the maximum 80K.

1. Select **Administration : People**.
2. Add a new person to the system or search for an existing person.
3. Click the **Photo ID** tab.
4. Select from the **Badge** drop-down the badge design you wish to use.
5. Click the **Photo ID** button to display the **Photo IDs** pop-up window.

NOTE: If the window does not appear, turn off the pop-up blocker or add the Network Controller site to the allowed site list.

6. In the **Photo IDs** window, click **Capture Image** to display the **Select Image Source** window.
7. Select the appropriate image source for your camera.

For example, select **Microsoft WDM Image Capture (Win32)** if you are using a Logitech camera, or select **Canon Live Capture** if you are using a Canon camera.

8. Click **OK** to display the **Capture** window for your camera.
9. Ensure that the person is properly within the picture frame and is at least six feet away from the camera, and then click the capture button.
10. Click **OK**.
11. The **Capture** window closes and the **Photo IDs** window redisplay with the image placed in the badge design. Confirm that the person's image is correctly captured and click **Save Image**.
12. The captured image appears on the **Personal Information** page. Click the **Close** button in the **Photo IDs** window.
13. Scroll to the bottom of the **Personal Information** page and click **Save**.

NOTE: On the **Personal Information** page, you can right-click on the image and select **Save Picture as**. You can then save this image separately as a jpg or bmp file.

Printing Photo ID Badges

This section describes how to print photo ID badges in the Security Application.

NOTE: For information on printing magnetic stripe encoded cards, see page 12.

Print to a photo ID badge printer:

1. Select **Administration : People**.
2. Search for the person whose photo ID you want to print.
3. Click the **Photo ID** button to display the **Photo IDs** pop-up window.

NOTE: If the window does not appear, turn off the pop-up blocker or add the Network Controller site to the allowed site list.

4. In the **Photo IDs** window, click **Print Photo ID**.
5. Verify that the photo ID badge is properly printed.

Queue photo ID badge requests for printing later:

1. Click **Close**.
2. In the **Photo ID** tab of the **Personal Information** page, click to put a check in the **Request Photo ID** box.
3. Scroll down the page and click **Save**.
4. Select **Administration : Reports : People : Photo ID Requests**.
5. Verify that the Photo ID Requests report contains a record for the photo ID badge print request.

Print photo IDs from the queue:

1. Select **Administration : Reports : People : Photo ID Requests**.
2. In the **Action** column click the printer icon. The **Photo ID** window appears.
3. Click **Print Photo ID and Close**. The **Print** dialog box appears.
4. Select the Photo ID printer from the **Name** drop-down and click **OK**.

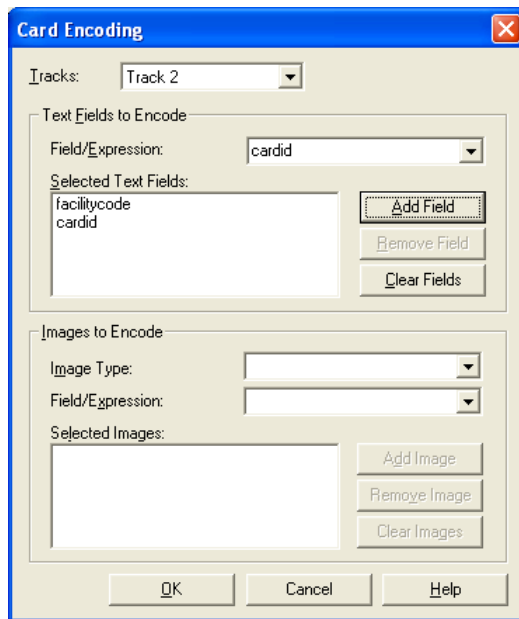
Encoding Magnetic Stripe Cards

As part of designing a magnetic stripe card in EPI Designer, you can encode fields to be used for access control purposes. Although you can also encode fields to be used for other purposes, this is not supported by Linear.

NOTE: Magnetic stripe encoding is supported only in V3.3 build 344 and above of the eMerge software.

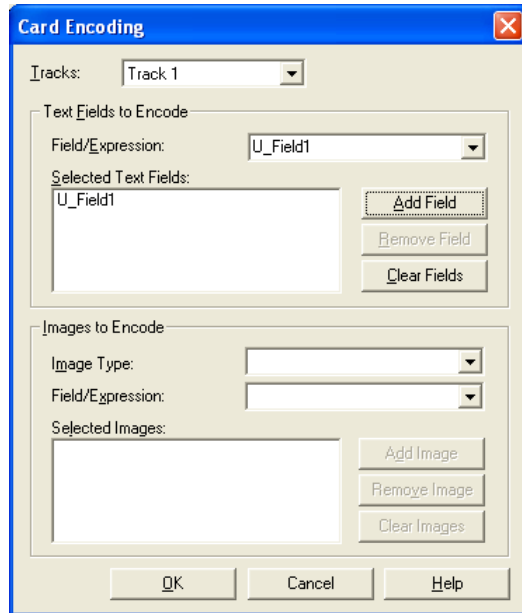
Encode a card with fields to be used for access control:

1. Select **Layout Properties** from the **Edit** menu to open the **Layout Properties** dialog.
2. On the General page, click the **Encoding** button to open the **Card Encoding** dialog.
3. Select **Track 2** from the **Tracks** drop-down.
4. Click the **Add Field** button and enter “**facilitycode**” data as the first field and “**cardid**” as the second field, as shown in the following figure.
5. Click **OK**.



Encode a card with fields to be used for purposes other than access control:

1. Select **Layout Properties** from the **Edit** menu to open the **Layout Properties** dialog.
2. On the General page, click the **Encoding** button to open the **Card Encoding** dialog.
3. Select **Track 1** or **Track 3** from the **Tracks** drop-down.
4. Click the **Add Field** button and enter the fields you want to encode. In the following example, **U_Field1** has been added.
5. Click **OK**.



Specify page setup properties:

1. Select **Page Setup** on the **File** menu.
2. On the **Name** drop-down, select the default printer to be used for printing badges.

IMPORTANT: This printer **must** be specified as the default printer in the badge design and in the Windows **Printers and Faxes** dialog box. To ensure that the printer default is set correctly, the default printer selection must be made on the same computer as the one used to print badges.

3. Click the **Properties** button to open the Printer Properties dialog.
4. Select the card Orientation: **Portrait** or **Landscape**. If there is a Card Type option, specify the card type.

IMPORTANT: The same Orientation setting must be selected for the printer in the Windows **Printer and Faxes** dialog box.


Creating a Magnetic Stripe Card Format for Printing

NOTE: Magnetic stripe encoding is supported only in V3.3 build 344 and above of the eMerge software.

When creating a magnetic stripe card format for printing in the Security Application, you should be familiar with the following terms related to the ABA Track 2 format:

- **Start Sentinel (SS):** One-byte character (a semicolon “;”) indicating where the card format starts.
- **Facility Code (FC):** Number found at the beginning of the card format. The number is the same for all cards in this format.
- **Field Separator (FS):** One-byte character (an equal sign “=”) that always goes between the facility code and the encoded number.
- **Encoded Number (EN):** Number that is unique to each card.
- **End Sentinel (ES):** One-byte character (a question mark “?”) indicating where the card format ends.
- **Longitudinal Redundancy Check (LRC):** One-byte character used to verify the input internally to the magnetic stripe reader.

The start sentinel, field separator, end sentinel, and longitudinal redundancy check are always part of the card format when you are printing cards in the Security Application. A sample format is shown in the following figure.

 **Card/Keypad Formats**

Name: * (or [add](#) [clone](#) [rename](#))

Description:

Data Format: *

Length: *

Facility Code: *

Facility Code Start: *

Facility Code Length: *

Encoded # Start: *

Encoded # Length: *

Hot Stamp # = Encoded #:

Byte definitions in card format (F=facility Code, N=card number, SS=start sentinel, ES=end sentinel, LRC=checksum)												
1	2	3	4	5	6	7	8	9	10	11	12	
SS	F	F	F	-	N	N	N	N	N	ES	LRC	

Notice that the fifth byte is blank. This is required when printing magnetic stripe formats in the Security Application. This byte will become the field separator between the facility code and the encoded number.

Determining the Length of the Card Format

Given that the start sentinel, field separator, end sentinel, and longitudinal redundancy check are part of the card format by default, the Track 2 format always has four bytes to begin with. The remainder of its length is determined by the lengths of the facility code and encoded number. Therefore, the length of the card can be calculated with the following formula.

$$4 + (\text{Length of FC}) + (\text{Length of EN}) = \text{Total card format length.}$$

In the example above, the facility code is three digits long and the encoded number is five digits long. Using the formula, you can calculate a card length of 12:

$$4 + 3 + 5 = 12$$

Printing Magnetic Stripe Encoded Cards

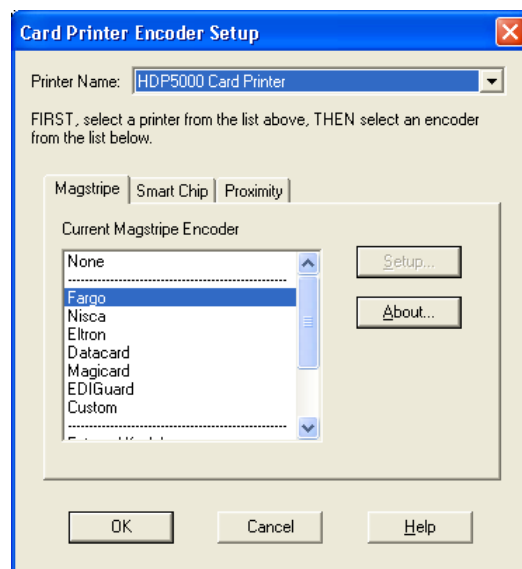
This section describes how to print photo ID cards in the Security Application.

Print to a photo ID badge printer:

1. Select **Administration : People**.
2. Search for the person whose photo ID you want to print.
3. Click the **Photo ID** button to display the **Photo IDs** pop-up window.

NOTE: If the window does not appear, turn off the pop-up blocker or add the Network Controller site to the allowed site list.

4. In the **Photo IDs** window, clear the **Use Default Printer** check box, and then click the **Print Photo ID** button.
5. In the **Card Printer Encoder Setup** dialog box, shown below, do the following:
 - a. Select the name of the printer you want to use from the **Printer Name** drop-down.
 - b. Select the printer manufacturer from the **Current Magstripe Encoder** list.
 - c. Click **OK**.
6. Verify that the photo ID badge is properly printed.



The information in this document pertains to Versions 3.2 and 3.3 of the IEI eMerge software.