DEPUTY SHERIFFS' TRAINING BULLETIN

PENNSYLVANIA FIREARMS LICENSE TO CARRY SYSTEM

PCCD is well underway with the development and preliminary testing of the new License to Carry (LTC) application. This bulletin provides updates and additional detail regarding the Basic system requirements defined in the PCCD LTC Funding announcement, updates to the data extract file format provided in Training Bulletin Number 95, and a suggested floor plan.

To ensure a smooth implementation, **PCCD highly recommends that you only procure devices** (Webcams, Signature Pads, and Magnetic Stripe readers) **which have been tested and recommended for use with the LTC application**. The Table below provides a summary of the devices recommended:

LTC Device Summary

Purpose	*Component*
Photo Capture	**Logitech® Webcam Pro 9000** http://www.logitech.com/index.cfm/webcam_communications/webcams/devices/6333&cl=us,en
Signature Capture	**Topaz SignatureGem LCD 1x5 capture pad Model T-LBK462-HSB** http://www.topazsystems.com/products/siggemlcd1x5.asp
Magnetic Stripe Reader	**Logic Controls Model MR3300U-BK** http://www.logiccontrols.com/web/MR3.html

Updates to the specifications for the Basic system requirements provided in the LTC Funding Announcement are provided below. Tables have been included, where applicable, which reflect testing results of critical components. Revisions and comments regarding the requirements are in *italic blue*.

> **Basic system requirements must include the following** (*costs of any additional items are borne by the applicant agency*):

WORKSTATION (Budget allowance $2,400)

- **PC tower or mini-tower housing, floor-standing**.
    - Processor – IBM Compatible, 2.33 GHz or greater,
    - Integrated video controller,
    - Internal audio speaker,
    - Integrated network adapter 10/100 MB Ethernet,
    - *USB 2.0 ports, five to eight, depending upon local equipment*
        - Keyboard port *(Alternate: Keyboard with integrated MSR)*,
        - Mouse port,
        - *Web Cam / Camera port,*
        - *Magnetic Stripe Reader Port (if not included in Keyboard)*
        - *Signature Capture Pad Port,*
        - *2 Printer Ports (if Printers are not connected to the network)*
    - Internal expansion bay – one additional for future expansion,
    - Expansion card slots – two free slots for future expansion,
    - Memory – 4GB,
    - Hard drive – 300 GB or larger, and
    - Removable media storage drive – CD/DVD+/-RW.

- **Display** (monitor) – 19" *or larger* flat panel color, high resolution.

- **Keyboard** – full alphanumeric, standard format.

    - *Alternative – Key board with integrated magnetic stripe reader (MSR)*

    Mouse – minimum 2-button.

- **Software**.
    - *Microsoft Windows XP SP3,*
        - Microsoft Office 2007 Professional (*Internet Explorer 6.0 or higher*, Word, Excel, Outlook, PowerPoint, Publisher, Access),
        - Adobe Acrobat 9.0 or later version (reader only), and
        - Security – McAfee 10 Security Center or later version with anti-virus, firewall.

PRINTERS

- **Printer #1** Dedicated high quality color Inkjet or color Laser printer with a separate thermal laminator device. (Budget allowance $1,000)
  This printer is for dedicated use to print License to Carry cards (PSP Form SP4-129) on soft synthetic paper, with perforated sheet stock. Separate pocket laminator, heated to reduce bubbles, is required and included in allowance.

  - License to Carry card printer, dedicated,
  - Color printer,
  - Print on synthetic substrate *4" x 6"* sheet with perforated cards equivalent in size to Pennsylvania drivers license,
  - Hopper feed,
  - Card laminator device with hot lamination provided separately,
  - Printing and lamination must ensure durability and legibility of card for 5 years with no degradation or separation of laminate,
  - Print composite license including LTC form template, licensee data, licensee digital photograph, licensee signature, LTC internet accessible authorizing signature (stored),
  - Supported by software listed with PC Workstation, and
  - *Include USB cord for connection to PC workstation if printer is not accessible via Local Area Network*.

  *Please note: Based on additional research, PCCD recommends a dedicated high quality color Inkjet printer with a **straight paper feed path**. The perforated synthetic paper cards are more likely to jam using a printer with a curved paper feed path and may melt if using a Laser printer.*

  There are a variety of color Inkjet printers available which should work without any problems, provided the printers have a straight paper feed path. Color Laser printers with a straight paper feed path should also work with the solution.

  *__Thermal Laminators__: There are a variety of thermal laminators available. A **Heavy Duty** thermal laminator designed to support 2 1/8" x 3 3/8" credit card size **10 mil Butterfly pouches** is recommended.*

- **Printer #2** General purpose (Budget allowance $300)
  This printer is a standard color inkjet or black and white laser printer for use to print License to Carry form copies and general reports.

  - Standard desktop, inkjet or laser, for general purpose printing, low volume,
  - Supported by software listed with PC Workstation, and
  - *Include USB cord for connection to PC workstation if printer is not accessible via Local Area Network*.

  There are a variety of color or black and white Laser or Inkjet printers available. This printer requires no special integration.

SIGNATURE CAPTURE PAD (Budget allowance $500)

- Electronic pad for attachment to PC via USB port to capture an applicant's handwritten signature digitally for inclusion on the LTC card.
- Must include a cable for attachment to the USB port and the software driver

Test Results

Component	Rating	Comments
Topaz SignatureGem LCD 1x5 capture pad Model T-LBK462-HSB http://www.topazsystems.com/products/siggemlcd1x5.asp	*Best*	*Minimum configuration, small footprint, industry leader*
IDTech uSign™ 200, Signature Capture Pad (IDUA-015500)	*NA*	*Unable to integrate with LTC application.*

DIGITAL *SLR* CAMERA *WITH LIVE VIEW OR WEBCAM* AND ACCESSORIES (Budget allowance $800)

- Commercial digital camera *or Webcam* for taking NIST/CPIN compliant applicant identification photograph,
- Minimum 5 megapixel resolution,
- 16MB internal memory,
- Minimum 2GB SD memory card,
- Camera *or Webcam* must include a port and USB cable long enough for attachment from the *device* location to the USB port of the PC Workstation,
- Live capture plug-in software to transfer a photograph image to the PC immediately,
- Supported by the software listed with the PC Workstation,
- Tripod or other style stand, and
- *18% Gray background cloth or poster*.

Test Results:

Component	Rating	Comments
Logitech® Webcam Pro 9000 http://www.logitech.com/index.cfm/webcam _communications/webcams/devices/6333&cl =us,en	*Best*	*Minimum Configuration, small footprint, industry leader, ease of use*
Logitech QuickCam Orbit AF	*Better*	*Minimum Configuration, small footprint, industry leader, slightly more complicated to use*
Microsoft LifeCam VX-7000	*Good*	*Minimum Configuration, small footprint, average or below average brightness of captured photos but can be remedied via supplemental area lighting.*
Nikon D-5000	*Poor*	*Does not seamlessly integrate with application*
Olympus E-450	*Poor*	*Does not seamlessly integrate with application*
Canon EOS Rebel XS 1855-IS Kit	*Poor*	*Does not seamlessly integrate with application*
Nikon D50	*Poor*	*Does not seamlessly integrate with application*
Olympus C-740 Ultra Zoom	*Poor*	*Does not seamlessly integrate with application*

Please note: PCCD has designed the LTC application to support the use of virtually any Digital SLR Camera with Live View capabilities by providing the ability to import digital photos from the PC into the LTC application. Using digital cameras may work, but will not provide seamless integration from the users stand point. Digital Cameras are also much more expensive than Web Cams.

MAGNETIC STRIPE CARD READER (Budget allowance $500)

- Small unit to read identification data from the magnetic stripe on the back of an applicant's Pennsylvania Operator's License or Photo Identification Card.
- Must include a cable for attachment to the USB port and software driver, if needed, and supported by the software listed with the PC Workstation.
  - *Must be a 3 Track MSR with an available OLE for Retail POS (OPOS) driver. (All MSRs generally require a two step setup process in order to enable OPOS driver data events via manufacturer-provided or web-downloadable software configuration utility as well as the installation of the manufacturer-provided or web-downloadable OPOS driver onto the host system.)*

Test Results:

Component	Rating	Comments
Logic Controls Model MR3300U-BK http://www.logiccontrols.com/web/MR3.html	*Best*	*Minimum Configuration, small footprint, easy to use. Heavy metal case with rubber feet keeps it in place.*
HP USB POS Keyboard with Magnetic Stripe Reader - FK218AA#ABA	*Better*	*Minimum Configuration, MSR, keyboard, and touchpad in one unit. Some users voice strong aversion to touchpad.*
Versakey USB Keyboard with Magnetic Stripe Reader by ID Tech Item #: IDKA-234133B	*Better*	*Minimum Configuration, small footprint. Loud beeps from device at startup and upon card swipe.*
Unitech MS241-3UG	*NA*	*OPOS drivers unavailable from manufacturer web site.*

LICENSE TO CARRY CARD PRODUCTION SOFTWARE (Budget allowance $2,000)

*Please Note: **No Commercial License to Carry Card Production Software is required**.*

ACCESSORIES (Budget allowance $1,500)

- External disk storage backup unit, 300 GB or greater, and
- Backup power unit (Universal Power Supply), minimum 500 KVA rating for 20 minutes, with a minimum of six 120 volt grounded outlets, and
- Equipment stands.

Please Note: None of these accessories are required but can be purchased if deemed necessary by the Issuing Authority.

SUPPLIES (Budget allowance $1,000)

- Initial supply of LTC card blanks, laminate materials, printer ribbons/cartridges for LTC card printer and general purpose printer
    - LTC ID Card blanks, such as Teslin® or Artisyn® premium synthetic paper. The blanks should be opaque white soft synthetic paper with a micro porous structure that bonds well with Thermal laminating to offer superior lamination properties and improve security and tamper resistance. The synthetic paper should be moisture resistant, tear resistant.
    - *The cards and Laminate should adhere to the following specifications:*
    - *ID card Blanks 1-up* **Credit Card size card 2 1/8" x 3 3/8" size on perforated 4" x 6"** *synthetic paper. When ordering the card blanks* **you must specify the type of printer (Inkjet or Laser) you plan to use**. *The paper is different for Inkjet or Laser printers.*
    - *Clear Laminate* **2 1/8" x 3 3/8" Credit Card size 10 mil Butterfly pouches**
    - Please note. If the Issuing Authority desires to have data or information on the back of the LTC ID cards, the cards should be ordered preprinted with the desired data or information.
- Electrical cords, cables, and spare battery for digital camera for backup.

SITE PREPARATION (Budget allowance $2,000)

- *Procurement and Installation of* **High Speed Internet** *Service.*
- *Receive, unpack and set up LTC site hardware including verification of installation of PC workstation software, connecting all devices to PC and Installing device drivers for Webcam, Signature Pad, Card Reader, and Printers on PC. Test high speed internet connectivity.*
- *Procurement and Installation of 3 point lighting.*
- Installation of 110V power outlets, Ethernet Cat5+ port with attachment to the County Local Area Network.

LOCAL ON SITE ASSISTANCE (Budget allowance $3,000)

- Local services as needed for technical consulting, training and startup support.

*Please Note: **PCCD is willing to provide technical assistance where possible to create the requested extract files defined below to counties that need it. Please complete and return the ACT 2005-66 LTC Survey 3, distributed on 3/08/10, to PCCD by 03/19/10**.*

For planning purposes, each LTCIA should plan to have 2 extract files (one for test and one for production) created according to the following specifications. Please note these specifications have been updated since provided in Training Bulletin 95 to include a second address line and up to 10 digits in the permit number:

*After the initial Pennsylvania State Police (PSP) conversion, PCCD will import and merge data supplied from each of the License to Cary Issuing Authorities (LTCIAs) using the standard, **double quote and comma delimited** text file format as defined in the table below, to capture address information, which is not available in the old PSP repository.*

Field	Format	Required	Sample Data
County Code	2 digits numeric	Y	21
Permit Number	*10 characters max; numeric*	Y	210000000001
Last Name	40 characters max; alphanumeric	Y	O'Malley
Suffix	5 characters max; alphanumeric	N	
First Name	40 characters max: alphanumeric	Y	Alan
Middle Name	35 characters max: alphanumeric	N	C
Date of Birth	MMDDCCYY; numeric	Y	12191986
Address Line 1	65 characters max; alphanumeric	Y	1313 Mocking Bird Lane
Address Line 2	*65 characters max, alphanumeric*	N	PO Box 12
City	65 characters max: alphanumeric	Y	Harrisburg
State	2 characters max; alphanumeric, valid state abbreviation	Y	PA
Zip	9 characters max (zip +4) ; numeric	Y 5 digit zip	17108

For example, the record update from the sample column in the above table would be formatted as follows:
"21","210000000001","O'Malley","","Alan","C","12191986","1313 Mockingbird Lane","PO Box 12", "Harrisburg", "PA", "17108".

The files that are created should conform to the following naming convention:

*CCLTCADDRESS**TEST**.txt   or CCLTCADDRESS**PROD**.txt*

Where CC represents the 2 digit County Code, LTCADDRESS is a constant, and TEST or PROD is a variable suffix used to reflect whether the file is a Test or Production extract file.

For example the production extract file for Cumberland County should be named:

21LTCADDRESSPROD.txt

The project team will utilize the records provided to locate active permit records and populate address information in the new repository. These files will need to be created during the second or third quarters of 2010 and submitted to the PSP via File Transfer Protocol (FTP) or email. Details regarding when and how to submit the extract files to PSP will be provided in future bulletins.

In the event, you are not able to provide a text file with the address information as requested, PSP will accept the same data in an MS Excel format. Alternatively, counties which utilize paper systems and or counties which choose not to create an extract file will be able to manually update the address information for their records, after the county is implemented into production.

PCCD will provide one 2-3 hour on site training session regarding how to use the new application during implementation.   No other training by PCCD is planned.

If individuals responsible for processing LTC applications and issuing permits are not already comfortable using a PC (key board, mouse, Microsoft application and Internet Explorer navigation), PCCD strongly recommends you procure basic training for these individuals.

SUGGESTED FLOOR PLAN

- PCCD is providing the suggested floor plan below for planning purposes. This plan includes the use of a Webcam rather than a digital camera. This floor plan represents a 13' x 15' room which should be more than adequate. A minimum 12' x 12' area is recommended, however you may be able to use smaller areas. PCCD realizes that the actual floor plan utilized will vary by site.
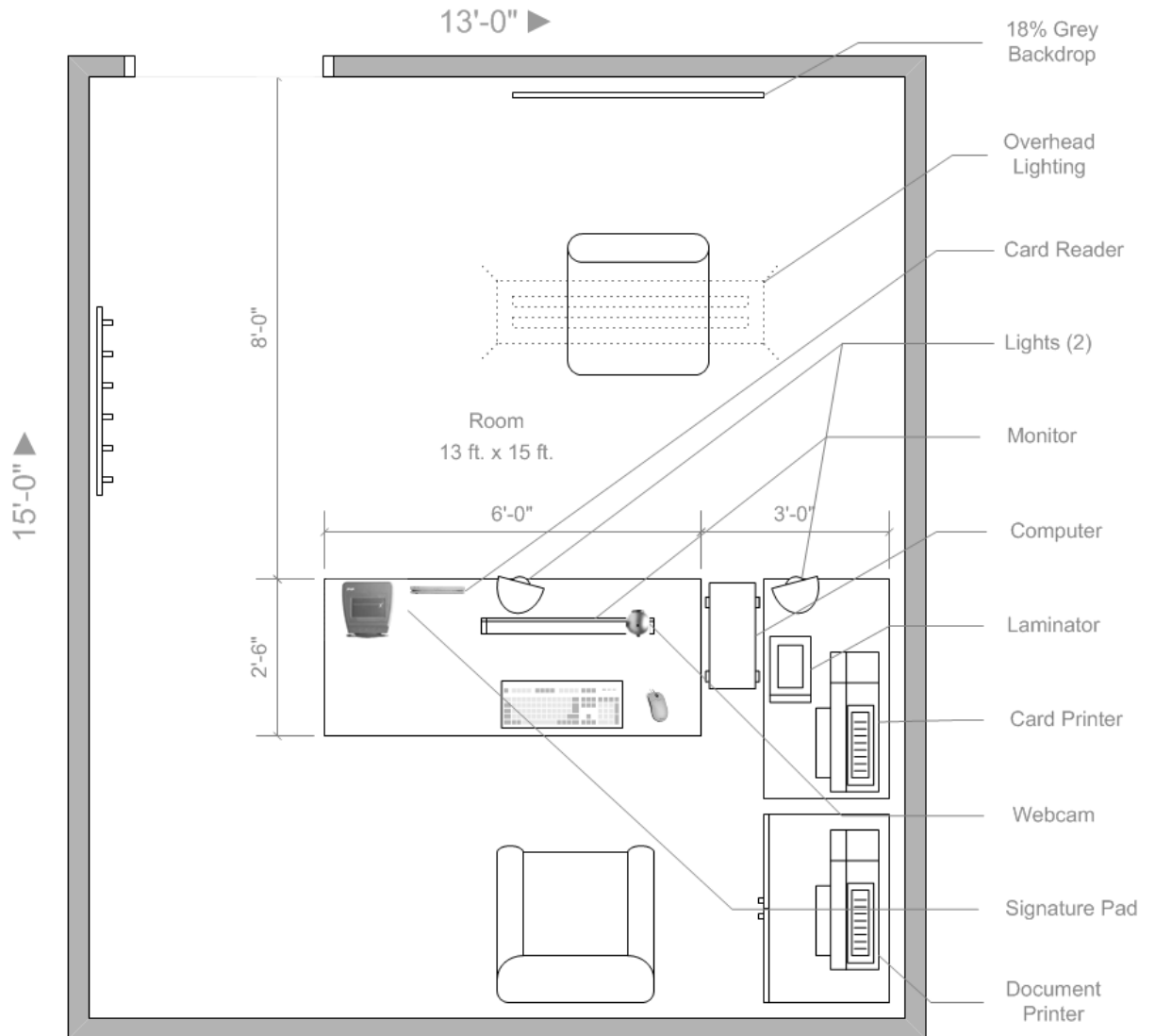
CPIN SUMMARY AND REFERENCES

Outlined below is a summary of key points from CPIN (Commonwealth Photo Imaging Network) guidelines and Best Practices to keep in mind when designing your floor plan:

POSE

The full-face or frontal pose shall be captured.

DEPTH OF FIELD
The subject's captured facial image shall always be in focus from the nose to the ears.

CENTERING
The facial image being captured (full-face pose) shall be positioned to satisfy all of the following conditions:

- The approximate horizontal mid-points of the mouth and of the bridge of the nose shall lie on an imaginary vertical straight line positioned at the horizontal center of the image.
- An imaginary horizontal line through the center of the subject's eyes shall be located at approximately the 55% point of the vertical distance up from the bottom edge of the captured image.
- The width of the subject's head shall occupy approximately 50% of the width of the captured image. This width shall be the horizontal distance between the mid-points of two imaginary vertical lines. Each imaginary line shall be drawn between the upper and lower lobes of each ear and shall be positioned where the external ear connects to the head.

LIGHTING
Subject illumination shall be accomplished using a minimum of three (3) point balanced illumination. Appropriate diffusion techniques shall also be employed and lights positioned to minimize shadows, and to eliminate hot spots on the facial image. These hot spots usually appear on reflective areas such as cheeks and foreheads.

BACKGROUND
The subject whose image is being captured shall be positioned in front of a background which is 18% gray with a plain smooth flat surface.

Additional information regarding CPIN standards can be found at the following sites:

http://www.pabulletin.com/secure/data/vol39/39-14/652.html

http://www.itl.nist.gov/iad/894.03/face/bpr_mug3.html