Intelligent Library System Open Plus (ILS) 3.0

User Guide

ISO 15693

Checkpoint®

Intelligent Library System Open Plus 3.0 (ILS) User Guide

Document Conventions

Caution: This is a Caution or Warning icon. When it appears, the corresponding text indicates a cautionary statement by which you must abide.

Note: This is a Note icon. When it appears, the corresponding text indicates a helpful note or tip when using the feature.

The following usage conventions are used throughout the Intelligent Library System User Manual.

Button Name - This describes a button or selection on the screen. For example, the <DONE> button is represented in this document as **Done**.

Key Name - This describes a keystroke on a keyboard. For example **Ctrl** represents the Control key on a keyboard.

Important Information to our Users in North America

FCC Regulatory Compliance Statement

Checkpoint Systems, Inc., offers Radio Frequency Identification Products that have been FCC certified or verified to 47 CFR Part 15 Subparts B/C and/or 47 CFR Part 18. Appropriately, one of the following labels will apply to the approval:

NOTE: This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

- OR -

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) including this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation, which may include intermittent decreases in detection and/or intermittent increases in alarm activity.

- OR -

NOTE: This equipment has been tested and found to comply with the limits for a miscellaneous type ISM device, pursuant to Part 18 of the FCC Rules. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio communications reception, which can be determined by turning the equipment off and on, please contact Checkpoint Systems, Inc., at 1 (800) 257-5540 for further assistance.

Equipment Safety Compliance Statement

Checkpoint Systems Radio Frequency Identification products have been designed to be safe during normal use and, where applicable, certain components of the system or accessory sub-assemblies have been certified, listed or recognized in accordance with one or more of the following Safety standards: UL 1012, UL 1037, UL 1310, UL 60950-1, CSA C22.2 No. 205, CSA C22.2 No. 220, CSA C22.2 No. 223, CSA C22.2 No. 60950-1. Additional approvals may be pending.

WARNING: Changes or modifications to Checkpoint's Radio Frequency Identification (RFID) equipment not expressly approved by the party responsible for assuring compliance could void the user's authority to operate the equipment in a safe or otherwise regulatory compliant manner.

Important Information to our Users in Europe

CE Compliance Statement

Where applicable, Checkpoint Systems, Inc., offers certain Radio Frequency Identification (RFID) products that have CE Declarations of Conformity according to R&TTE Directive 99/5/EC.

System Electromagnetic Compatibility (EMC), has been tested and notified through Spectrum Management Authorities using laboratories, whereby, conformity is declared by voluntarily accepted European Telecommunications Standards Institute (ETSI) standards EN 301489-3 and EN 300330-2.

$$C \in \textcircled{!}$$

NOTE: Certain Radio Frequency Identification (RFID) equipment have been tested and found to conform with the CE emission and immunity requirement in Europe. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Under unusual circumstances, interference from external sources may degrade the system performance, which may include intermittent decreases in detection and/or intermittent increases in alarm activity. However, there is no guarantee that interference will not occur in a particular installation. If this equipment experiences frequent interference from external sources or does cause harmful interference to radio communications reception, which can be determined by turning the equipment off and on, please contact a Checkpoint Systems representative for further assistance.

Equipment Safety Compliance Statement

Checkpoint Systems Radio Frequency Identification products have been designed to be safe during normal use and, where applicable, certain components of the system or accessory sub-assemblies have been declared safe according to the European Low Voltage Directive (LVD) by being certified, listed, or recognized in accordance with one or more of the following European safety standards; EN 60950, EN 50364, EN 60742. Additional approvals may be pending.

WARNING: Changes or modifications to Checkpoint's Radio Frequency Identification equipment not expressly approved by the party responsible for assuring compliance could void the user's authority to operate the equipment in a safe or otherwise regulatory compliant manner.

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INTRODUCTION

The Intelligent Library System Open Plus 3.0 (ILS) is an integrated security tracking and database system that maintains a library's collection using Radio Frequency Identification (RFID) to wirelessly coordinate the subscription status of library materials. This protects collections, streamlines operations, and improves patron service. When using ILS, libraries reduce losses, enhance staff productivity, increase circulation flow, and improve patron satisfaction. ILS operates in conjunction with the library's Library Management System (LMS) or Automated Circulation System (ACS).

ILS includes the following components:

- RFID tag
- Patron Identification Card
- Intelligent Sensor
- Patron Self-Checkout Station
- Staff Station Reader
- Intelligent Library Controller (Application Server)
- Portable Inventory Reader (optional)
- Exception Ticket Printer (optional)
- ILS Remote Monitor (optional)
- CheckVIEW (optional)
- CheckPASS (optional)
- Tag Programming Station (optional)
- DiscMate (optional)

The following configuration illustrates an example of the ILS components and connections in a typical ILS setup.

Figure 1.1 Sample Intelligent Library System Components

Note: Your specific ILS configuration may not include one or more of the components shown.

Library Network Topology

In addition to supporting the Single Branch topology, ILS Version 3.0 supports the following library topologies:

- "Single Branch"
- "Single Server, Multi-Branch Architecture"
- "Peer-to-Peer Communication"

Figure 1.2 depicts the library network topologies supported by ILS Version 3.0.

Single Branch

Application Server

Single Server, Multi-Branch

Local Security Controller   Main Branch

Peer-to-Peer

Peer Branch   Main Branch

= branch   Peer Branch   Peer Branch
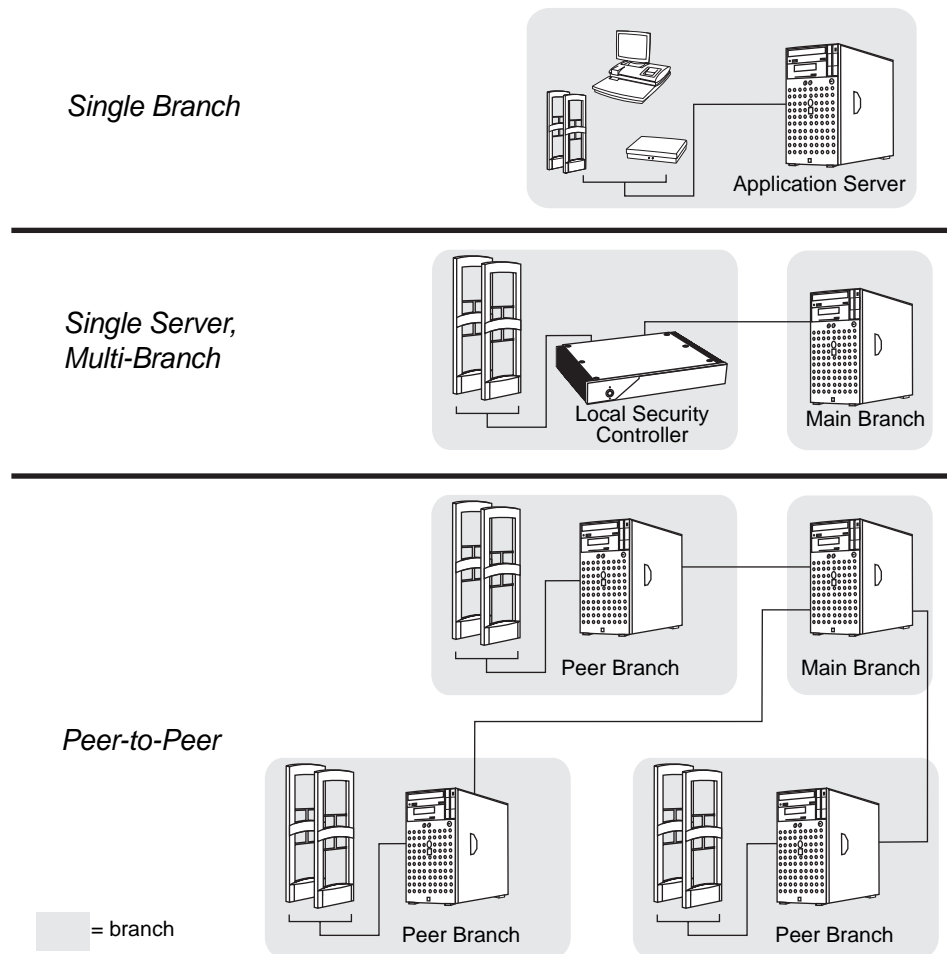
Figure 1.2 Library Network Topologies Supported by ILS Version 2.5

Single Branch

The Single Branch scenario represents the current implementation of ILS, where one Application Server controls all of the components within a single branch library.

Single Server, Multi-Branch Architecture

New with this release, ILS Version 3.0 enables a single server to manage the circulation of not only its only branch but multiple remote branches as well, granting the administrator greater power and ease to manage the entire system. In this scenario, Local Security Controllers are used to assist the Application Server.

The Local Security Controller (LSC) is a combination hardware and software solution for a multi-branch ILS deployment. The LSC assists the Intelligent Library Controller in maintaining the response speed of Exit Interrogators, managing the connection between the Exit Interrogators at the branch and the remote Application Server to provide maximum caching performance. The LSC also enables the intelligent sensors to operate (with limitations) if the main server is down. This scenario is normally used with libraries containing up to 20 branches.

Peer-to-Peer Communication

New with this release is the ability to run a library's security and inventory management system from any ILS Server. This enables a granular redundant system that is crash resistant because each node can run the entire system, as well as, holding a complete copy of the checkout cache database at any time.

The main Application Server communicates to each node (peer server) the latest circulation database in a configurable matter of time (from seconds to hours or even daily); meaning circulation records are nearly always up to date. This means that exit gates (intelligent sensors) are updated throughout the day at every branch. This allows a patron to walk to another branch (for example on a college campus) and their library material will respond with the correct check-in or checkout status. This scenario is normally used for libraries containing more than 20 branches.

Document Overview

This manual provides a general overview of the ILS technology and illustrates the use and operation of each component.

This manual has been designed for the librarian and administrator and contains all the information necessary to take full advantage of the system capabilities. The Intelligent Library System enhances your library experience because of the system's inherent ease of use and efficiency.

This manual is organized into chapters, with each chapter describing a system peripheral, such as the Self-Checkout Station. Each peripheral is designed with a specific system role in mind. For example, patrons typically use the Self-Checkout Station, while Library staff use the Portable Inventory Reader. Read the sections that apply to your role for ILS system operation.

This manual is divided into the following chapters that cover system peripherals and important ILS tasks.

Intended Audience

This document is intended for library staff and administrators as well as Checkpoint Systems field service staff. The library staff includes librarians, support staff, and temporary staff. The Field Service staff is comprised of the Checkpoint installers and technical support personnel. These audiences need to understand the basic functions, operations, and procedures related to the ILS.

System Overview

The following sections describe how the Intelligent Library System Open Plus interacts with a library's circulation system to maintain its collection.

How RF Query Tags

The Intelligent Library components - Self-Checkout Station, Intelligent Sensor, Staff Station Reader, and Portable Reader - all use a Radio Frequency (RF) antenna and transceiver system (interrogator) which detects and reads the RFID tags. Communications occur when an interrogator's radio field is triggered by a tag passing through it. When energized, the tag presents the programmed item-specific information to the interrogator for further processing.
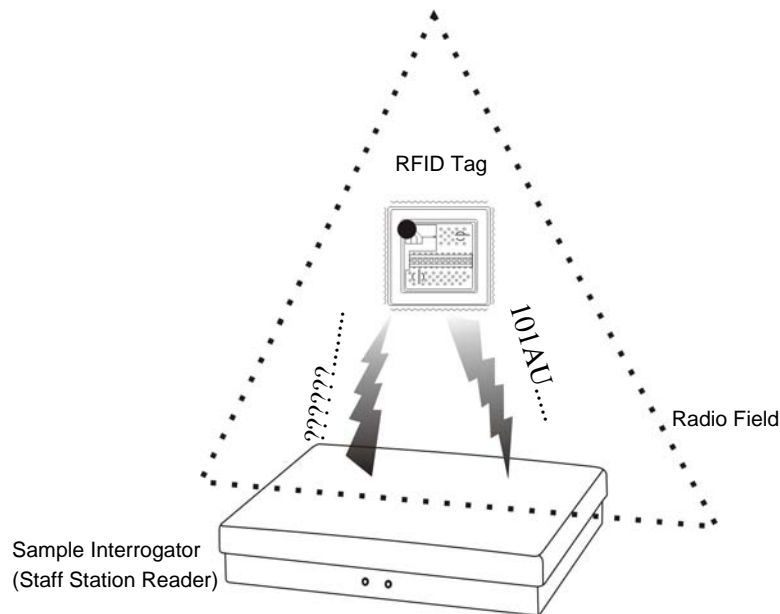
Figure 1.3 RFID Tag is interrogated

The data, routed by the Intelligent Library Controller, is compared to the Library Management System (LMS) database, in order to identify the checkout status of an item.

How ILS Maintains the Library's Collection Database

The Intelligent Library Controller is the communications gateway between the ILS subsystems and the library's Library Management System (LMS) so that the check-in, self-checkout, inventory management, and security activities can all be accomplished.

All library materials including books, CD/DVD materials, videotapes, and cassettes are tagged with a permanent RFID tag. This tag contains information that uniquely identifies the item within the library circulation database. Patron cards identify patrons when the card is scanned at the Self-Checkout Station. The card stores coded information unique to the individual patron that identifies the user to the Library Management System. The patron can then be validated as eligible or ineligible to use the library checkout privilege.

Patron Checkout and Check-In

Patrons use Self-Checkout Stations to checkout library materials. Self-Checkout Stations include a patron card reader, an RFID tag, a touch screen monitor, and a printer in one compact unit. This provides the patron with library transaction capability without any librarian assistance. A patron scans the RFID Patron Card and library materials, identifying the patron and linking the library materials to the individual through a communications session with the Library Management System via the Intelligent Library Controller.

When the patron checks out materials, the patron and checked out item information is stored in both the LMS and ILS databases, allowing ILS to operate in both on- and off-line modes. When materials are checked out from a Self-Checkout Station, the ILS asks the to the patron to checkout items from the LMS. If privileges are granted then a checkout request to the LMS is generated for each item.

If the patron is checking in library materials, the ILS makes a check-in request to the LMS, which updates its database and reports the result back to the ILS.

Staff Checkout and Check-In

The library staff typically uses a Staff Station Reader in situations where a patron needs help from a librarian or when a librarian is checking in or checking out library materials. The Staff Station Reader interrogates tags and functions the same as current bar code scanners used in Library Management Systems.

Book Return Check-In

The Staff Station Reader can also be integrated into a book return slot. When library materials are placed in the book return, the tags on the items are read and sent to the LMS. The LMS then updates its database and passes back the transaction status to the ILS.

Checkout Process

Diagrammed here is how library materials are checked out.

Self-Checkout Station

Staff Station Reader

Intelligent Sensors

Intelligent Library Controller

Figure 1.4 Check Out Flow

1 The RFID tag, encoded with the necessary information, is wirelessly read by either the Self-Checkout Station or the Staff Station Reader.

2 The Station or Reader communicates with the Intelligent Library Controller which, after successful verification, communicates back to the Station or Reader that the book is checked out.

3 When exiting the library, the book passes through the Intelligent Sensors which verifies the status of the book and allows it to exit the library without triggering an alarm.

Inventory Collection

You can use the Portable Inventory Reader to inventory the library's contents or to find individual items. The unit is a battery powered hand-held device that interrogates RFID tags as you walk by tagged items, when the unit detection head is within a ten-inch (25 cm) radius.

The Portable Inventory Reader searches for specified items using its search function. Single or multiple item IDs can be uploaded to the data terminal and when a scanned ID matches, the user receives an audible alert and the ID is displayed on the data terminal.
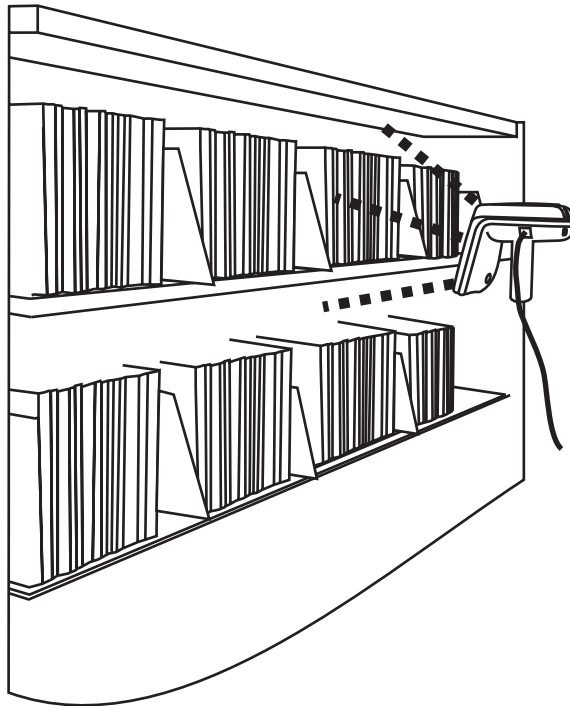
Figure 1.5 Portable Inventory Reader Taking Inventory

The Item Identifiers on the tagged articles are read and stored in a Portable Data Terminal which can be downloaded in real-time to the Intelligent Library Controller using the wireless data-terminal option or downloaded after the inventory is completed as a batch file using the standard data terminal. The inventory data is then communicated to the Library Management System, which compares the information from the Portable Inventory Reader to item information in the circulation database.

Exit Monitoring

The Intelligent Sensor protects exit/entry aisles against unchecked library materials leaving the secured area by determining whether tagged items have checked (authorized/no alarm) or unchecked (unauthorized/alarm) events.

Intelligent Sensors

Intelligent Library Controller
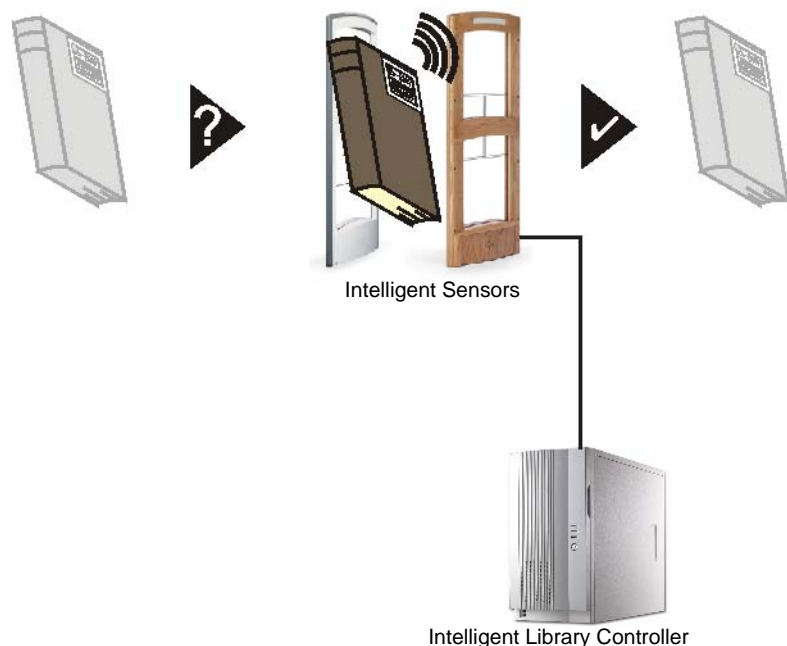
Figure 1.6 Exit Monitoring

Programming Tags

The Tag Programming Station enables libraries to read and create their own RFID tags and print barcode labels. This can also be used to convert library materials with barcodes to RFID tags programmed with the barcode value. A tag format file (created by Checkpoint field service staff using the Tag Programming Application) is used to program the tags in a compatible format. Tags are programmed by printing them with the Tag Programming Station. See "RFID Tag is interrogated" on page 1-6 for an illustration of this process.

Off-line Processing

The Off-line Processing feature enables the Intelligent Library Controller and Self-Checkout Stations to continue operating when disconnected from the library's circulation system. While the circulation system is offline, the Intelligent Library Controller records significant events on the system, which are then reported to the circulation server when synchronization reoccurs. For example, at the time of synchronization, the due date is sent to the circulation server.

When Off-line Processing is turned on, the word ON appears next to Off-line Processing. The feature is turned on or off by Checkpoint field service personnel by setting a table parameter on the Intelligent Library Controller. If using the Bridge Interface ("ILS Without an LMS Connection"), Off-line Processing should never be turned on.

ILS Without an LMS Connection

It is possible for ILS to operate without an active Library Management System (LMS) interconnection using the ILS Bridge Interface feature. The Bridge Interface feature allows libraries with non-supported circulation vendors or no circulation systems to use the security and Staff Station Reader functionality of the ILS.

With the Bridge Interface, the user of the ILS Control program monitors and changes the operation mode (check-in or checkout) of the Staff Station Readers. A library that is using the Bridge Interface can use a Staff Station Reader for checkout, but cannot use a Self-Checkout Station.

Components

The following sections describe in detail each of the ILS system components.

RFID Tag

The RFID tag an advanced RFID integrated circuit bonded to a label which is then attached to library material.
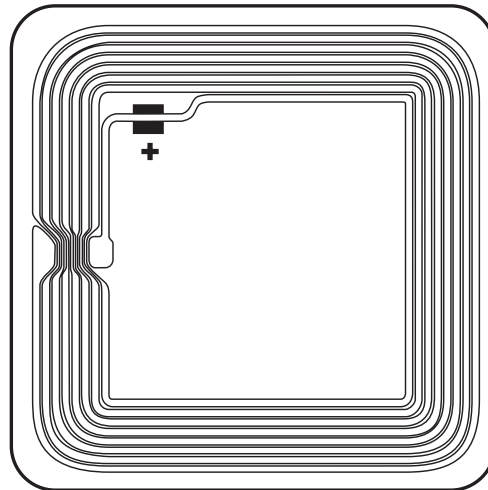
Figure 1.7 RFID Tag

The tag stores 96 programmable bits of information about an item that can be read on a single Radio Frequency, 13.56 MHz, up to a distance of 4 feet (1.2 m). The tag allows for the reading of multiple tags using an anticollision algorithm, as well as error detection and correction methods.

ILS Intelligent Sensor

The ILS Open Plus Exit Gate provides security at library exits and corrals by generating a radio field that gathers tag information from a distance up to 24 inches (61 cm). Two intelligent sensors form a secure aisle up to 48 inches (122 cm) wide for tag detection range. Additionally, the sensor communicates back to the Library Management System via the Intelligent Library Controller in real-time, determining whether an item has been checked out. If items in the interrogation field are not properly checked out, an alarm sounds and the book title appears on an exit alarm screen.

Figure 1.8 ILS Intelligent Sensors

Local Security Controller

The Local Security Controller (LSC) is a combination hardware and software solution for a single server, multi-branch ILS deployment. The LSC assists the Intelligent Library Controller in maintaining the response speed of Intelligent Sensors (exit gates), managing the connection between the Exit Interrogators at the branch and the remote Application Server to provide maximum caching performance. The LSC also enables the exit gates to operate (with limitations) if the main server is down. This scenario is normally used with libraries containing up to 20 branches.
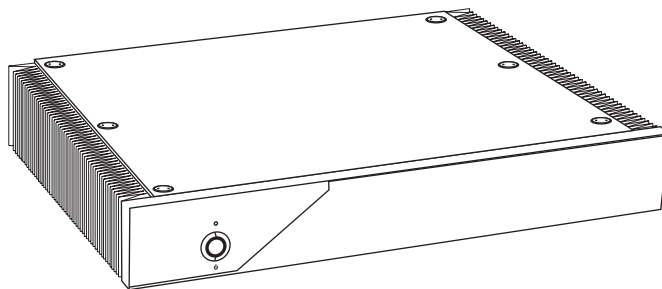
Figure 1.9 Local Security Controller

Staff Station Reader

The Staff Station Reader functions as an interface to ILS and circulation activities for library personnel. The Staff Station Reader reads RFID tags when a book is placed on the reader at up to 12 inches (30 cm) from the reader in a vertical direction. The Staff Station Reader communicates through data links with both the Library Management System and ILS, providing library staff the ability to perform typical functions with both the library system and RFID tagged items. For example, library staff can find the status of RFID tagged items that have been processed by ILS.

Figure 1.10 ILS Staff Station Reader

Patron Self-Checkout Station II

The Self-Checkout Station enables a library patron to checkout library materials without the assistance of the library staff. The system may report messages if there is a problem conducting the checkout transaction; for example, overdue fines have locked the patron's account.

Figure 1.11 ILS Self-Checkout Station

The Self-Checkout Station supports multiple languages simultaneously. When programmed, a language selection screen is presented to the patron to select a language for the self-checkout transaction.

A typical scenario for a patron to check out a book is as follows.

1 A patron arrives at the Self-Checkout Station and selects a language (if using multiple languages).

2 The patron is identified by the system with their patron ID card.

3 The system confirms the patron's eligibility to conduct a transaction through validation of the patron ID card.

4 The patron is led through the transaction process by communication with the system through a touch screen monitor. The patron checks out items by passing them one at a time over a short-range wireless interrogator that is located in the Self-Checkout Station.

   a The short-range interrogator generates a radio field, which activates and interrogates the tagged item.

   b The interrogated item ID is passed to the Intelligent Library Controller.

   c The Intelligent Library Controller determines the item status and actions that can be taken via communications with the Library Management System.

   d The Intelligent Library Controller updates the Self-Checkout Station, which notifies the patron about their transaction status.

5 After the patron scans all the items to be checked out, the patron touches **Done** and receives a receipt for the transaction, listing all materials checked out and the respective due dates.

Portable Inventory Reader

The Portable Inventory Reader provides inventory management functions, such as inventory reconciliation and item search. The device consists of a hand-held, rechargeable battery operated wand that generates a radio field that scans RFID tagged items. The wand is attached with cabling to a data terminal, which can be carried in one hand or strapped onto the wrist, storing information read by the wand. The data stored in the terminal can be downloaded to the Intelligent Library Controller in real-time either with the standard data terminal or wirelessly.

The wand can also be used for item searches and shelf order checking. Item information is uploaded to the data terminal, allowing you to scan the ID. Once found, an audible alert sounds and the ID displays.

Inventory Wand

Portable Data Terminal

Figure 1.12 ILS Portable Reader

Intelligent Library Controller

The Intelligent Library Controller software:

• Functions as the communications gateway between the Intelligent Library subsystems and the Library Management System

• Identifies and configures all peripheral Intelligent Library sub-systems

• Tracks and directs all ILS transactions

The Intelligent Library Controller operates whether the Library Management System is on-line or off-line. In off-line mode, the server tracks whether an item is being checked out, checked in, and determines whether tagged items going through secured areas are authorized. If unauthorized items are detected by the system, the server signals the Intelligent Sensor (the gates) to alarm. Any transactions that occur independent of the Library Management System are updated when the ILS system comes back on-line.

The Intelligent Library Controller interfaces to the Library Management System and other subsystem components using the 3M$^{©}$ protocol (SIP2) over an Ethernet Network Interface Card (NIC). The Ethernet NIC uses the TCP/IP protocol and session and the physical cable is 10BaseT.

Exception Ticket Printer

New in ILS Version 3.0 is the option to automatically print a hold receipt for library material at designated book drops. This means that when library material is returned via a book drop, if the library material is designated with a hold, a printer automatically prints a receipt. This frees library staff from having to manually check-in each item for its hold status. Instead, a staff member just checks the print receipt and then secures the receipt with the item on hold.

One exception ticket printer can service multiple interrogators. This means that a receipt might print at the exception ticket printer near Drop Box A for a book that is returned at Drop Box B.

CheckVIEW

New in Version 3.0 is the CheckVIEW utility, enabling library staff to remotely monitor up to four different Self-Checkout Stations at one time from any computer within the library. This enables library staff to manage issues such as:

*   Patrons who are having difficulty using the touch screen

*   Stations that may have hardware or system problems

*   Viewing the patrons' check out list to reconcile any discrepancies concerning availability

Staff members can use their mouse and keyboard to assist patrons by assuming control of a specific Self-Checkout Station window to step a patron through a checkout procedure.

ILS Remote Monitor

New in Version 3.0, ILS Remote Monitor is an optional utility that allows library staff operating in a single server, multi-branch or peer-to-peer environment to view the status of other branches on the network from any computer on that network. This enables a staff member to monitor system status, identify a troublesome Self-Checkout Station, print a pre-run report, or transfer files.

The ILS Remote Monitor works on any computer (with a web browser) that is connected to the library network.

Tag Programming Station

The Tag Programming Station programs RFID tags, either with the retrospective item identifier from the existing barcode or when new materials are added to the collection. This reduces the time it takes to convert a library collection from barcode to RFID tags as well as add additional materials.

The Tag Programming Station enables the library to easily link new materials into ILS instead of waiting several weeks for pre-programmed tags.
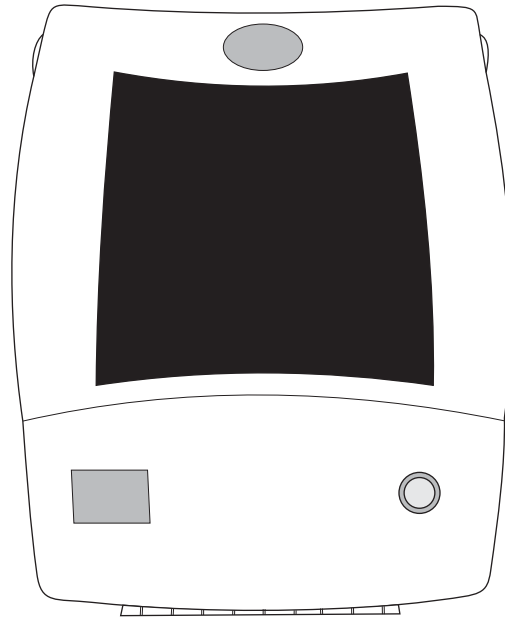
Figure 1.13 Tag Programming Station

When adding a new item to the collection and programming the RFID tag, the library can also print a barcode label. In many cases, libraries will continue to support the use of barcodes in addition to the RFID tags, mainly for compatibility with other branch libraries still using barcodes.

Using the Tag Programming Application, libraries program the RFID tags by printing them. Refer to "Affixing Tags" on page 8-1 for instructions on how to attach circuits to library materials.

CheckPASS

CheckPASS is an optional utility that allows library patrons to pay library fees at a Self-Checkout Station, without staff assistance. Outside of the ILS product, patrons use a self-service unit to add cash to their account balances. Within ILS, patrons are reminded of outstanding library fees when they attempt to check out materials. They can then pay with the touch of a button at the Self-Checkout Station. Patrons save time and library staff is freed to perform other tasks.

See "CheckPASS" on page 11-1 for further information.

Notes

2

APPLICATION SERVER

The Application Server hardware hosts the Intelligent Library Controller software, which is the core-processing component of the Intelligent Library System Open Plus. The Intelligent Library Controller performs many functions, including:

- Storing transactions performed at the Self-Checkout Stations
- Downloading inventory data from the ILS Portable Inventory Reader
- Generating reports
- Connecting to the Library Management System (LMS)

In addition, the Intelligent Library Controller provides a single station for system configuration and diagnostics. If the LMS becomes unavailable, the Intelligent Library Controller can support automated checkout functions without the LMS, using a feature known as Off-Line Processing. Off-Line Processing is a site-specific option, so it may not be available to you.

This chapter describes the Application Server and its components and how they operate within the ILS. It also provides information on:

- Checking system, host, interrogator, and exit alarm status (page 2-2)
- Scheduling Checkout Cache Synchronization and Host Reconnections (page 2-6)
- Synchronizing the Checkout Cache (page 2-8)
- Downloading inventory information from the Portable Inventory Reader (page 2-10)
- Generating, saving, and printing reports, including Checkout Discrepancy, Patron Discrepancy, Exit Alarm, Check-In Exception, and Generic reports (page 2-11)
- Communicating and coordinating data exchange with Local Security Controllers at remote branches (page 2-25)
- Working in Bridge Mode (page 2-25)

Check System Status

The Intelligent Library Controller provides current information on the status of the ILS system and ILS Portable Inventory Reader. You also use it to generate reports.

The four main sections of the Intelligent Library Controller window include:

- Self-Checkout Station Status (page 2-2)
- Host Status (page 2-4)
- Interrogator Status (page 2-4)
- Exit Alarms (page 2-6)

With the exception of the Interrogator Status section, these sections can be displayed or hidden from view.
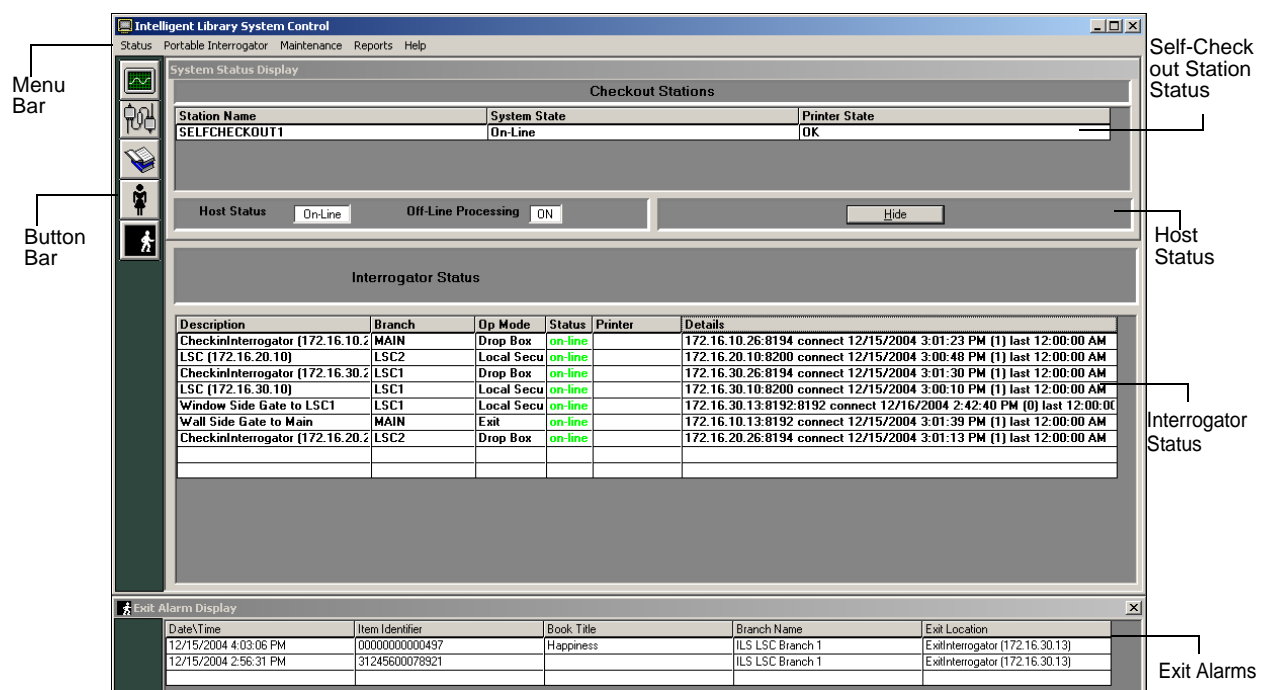
Figure 2.1 Intelligent Library Controller window

You navigate using the menu bar or the button bar. The button bar provides shortcut buttons to the most commonly-used features. Use the Hide button to hide or show individual areas of the window.

Self-Checkout Station Status

The Self-Checkout Station Status section displays information about the operational state of the Self-Checkout Stations, including:

- **Station Name**
  Displays the name of each Self-Checkout Station.

- **System State**

  Identifies whether or not the Self-Checkout Station is connected (on-line) or not connected (off-line) to the LMS.

- **Printer State**

  Displays messages about the printer, including: OK, out of paper, I/O error, and so on. These messages are generated by Windows.

Figure 2.2 System Status Section

To display the System Status Section:

▸ Click **System Status** in the button bar. See Figure 2.3.
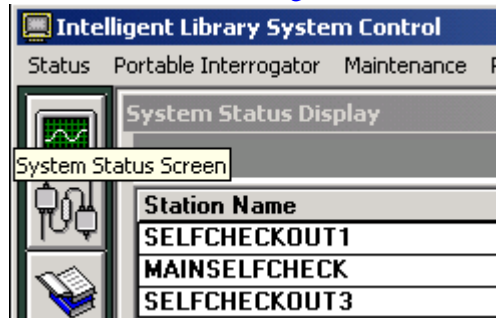
Figure 2.3 System Status Button

OR

▸ Select **Status > System Status Display** in the menu bar. See Figure 2.4.
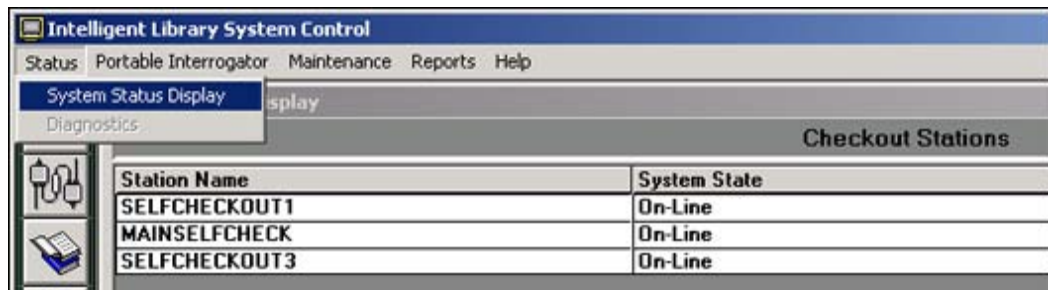
Figure 2.4 System Status Menu Selection

Host Status

The Host Status section notifies you if the host (Library Management System) is on-line or off-line and whether or not Off-Line Processing is enabled.

Figure 2.5 Host Status Area

The Off-Line Processing feature allows a library to configure the Intelligent Library Controller and Self-Checkout Stations so they can continue to operate while the LMS is off-line. While the LMS is off-line, the Intelligent Library Controller records significant events (such as check-ins and checkouts) and reports them to the LMS later, during cache synchronization.
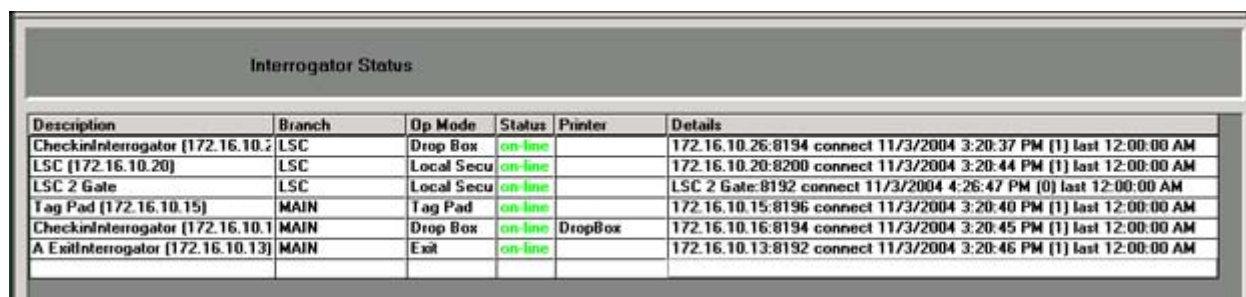
Off-Line Processing must be enabled on an Application Server that uses the Bridge Interface. The Bridge Interface allows libraries with non-supported circulation vendors, or no LMS at all, to use the ILS security and Staff Station reader features. See for more information.

This feature is optional and may or may not be enabled (allowed) at your site.

- If Off-Line Processing is enabled, the Off-Line Processing status is ON.
- If Off-Line Processing is disabled, the Off-Line Processing status is OFF.

Interrogator Status

The Interrogator Status section shows information about interrogators (Self-Checkout Stations, Staff Station Readers, and Intelligent Sensor exit gates), including:

Figure 2.6 Interrogator Status Section

- **Description**
  The IP address, port number, and the location of the interrogator.

- **Branch**
  The library branch at which the interrogator resides.

- **Op Mode**
  Used in bridge mode to denote the function of the interrogator, including Check In, Checkout, Drop Box, or Exit. If your site does not use the Bridge Interface, the Op Mode denotes the function of the interrogator, including Drop Box, Exit, or Tag Pad.

- **Status**

  Operational status of the interrogator (on-line or off-line).

- **Details**

  Shows a history of connections for each interrogator, including IP address, port number, whether the connection was a connect or disconnect, connection date, and connection time. The number in parentheses (#) shows how many reconnections were attempted. (A high number of attempts may indicate network problems.)

This section cannot be hidden from view.

Edit Interrogator

To view or edit the information for an individual interrogator:
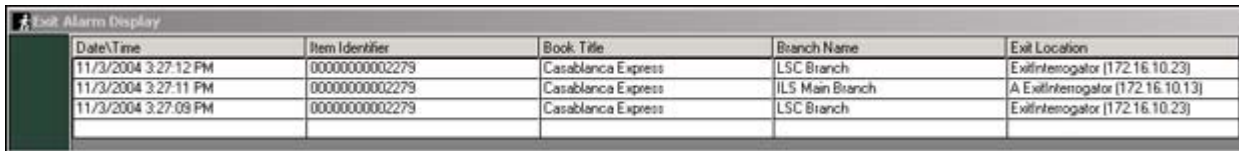
1 In the Intelligent Library System Control window, select **Maintenance > Edit Interrogators**.

2 Type the **ILS username** and **password** in the ILS Login window. The default username is **ils** and the default password is **maint**. The Edit Interrogator window displays:

Figure 2.7 Edit Interrogator Window

3 If necessary, use the drop-down list boxes to select the desired **Interrogator (desc.)** and **Branch** (Figure 2.7). In the example above, SELFCHECKOUT1 will be assigned to the Main branch.

4 Make the desired modifications, and click **Save**. For example, you can change the description of the component in the Description drop-down menu by typing over the existing description. Click **Cancel** to clear any changes you do not wish to save.

5 **Close** the Edit Interrogator window by clicking the **X**.

Exit Alarms

The Exit Alarms section displays information about each exit alarm that has occurred, including:

Figure 2.8 Exit Alarms Section

- Date and time of exception
- Item identifier
- Book Title of the exception
- Branch at which the exception occurred
- Exit location is the exit gate at which the exception occurred

Scheduling Checkout Cache Synchronization and Host Reconnections

Use Task Scheduler to schedule Checkout Cache Synchronization and Host Reconnections to execute automatically at the desired time. It is recommended that they occur once each day, during non-circulation hours.

For an explanation of Checkout Cache Synchronization, see "Synchronizing the Checkout Cache" on page 2-8. You should schedule this task to occur once each day.

Host reconnection refers to re-establishing the Application Server's connection with the Library Management System. Various tasks that the LMS performs (such as backup) can cause it to close its connection to the Application Server. You should schedule the reconnection to happen after the LMS performs these types of tasks.

To display the Task Scheduler and schedule the tasks:
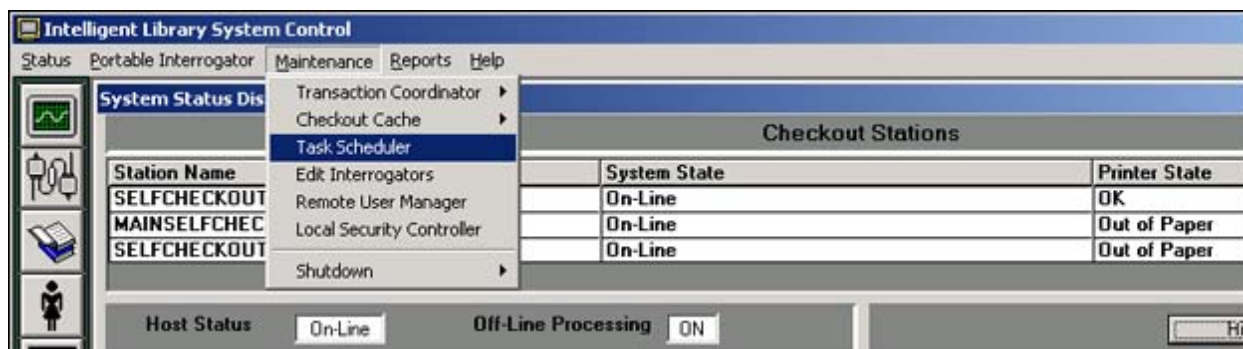
Figure 2.9 Task Scheduler Navigation

1   Select **Maintenance > Task Scheduler**.
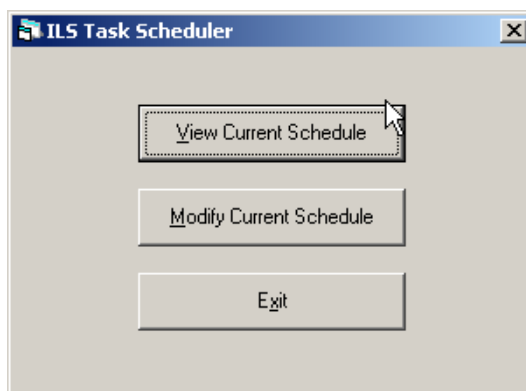
Figure 2.10 Task Scheduler Menu

2   In the ILS Task Scheduler window, click **View Current Schedule** or **Modify Current Schedule**, depending on which task you want to perform. View Current Schedule does not allow you to change the schedule.

3   Type the **ILS username** and **password** in the ILS Login window. The default username is **ils** and the default password is **maint**.

4   Click **OK** to log in to the Task Scheduler. The Task Scheduler window displays:

Figure 2.11 Task Scheduler dialog box (Modify)

5   In the ILS Task Scheduler dialog box, enter the following information:

   a   Type a **Task ID** number. Valid Task ID numbers are:

   3200 = Checkout Cache Synchronization

   3201 = Host Reconnect

   3401 = Transaction Purge (marks for deletion records older than 14 days in Transaction database)

   3402 = Transaction Compact (deletes marked records in Transaction database)

b Click the **Disable Task** checkbox to override the scheduled time that the task should run. The task will not run until you clear the checkbox.

c Enter a **name** for the task.

d Select whether the task should be run **Weekly/Daily** or **Monthly**.
If you select Monthly, enter the day of the month on which the task should run.

e For each day of the week that you want the task to run, enter **a time** to start the task. If you do not want the task to run on a particular day, leave that day's time field empty or clear it, as needed.

✎ Note   Be sure to schedule Checkout Cache Synchronization to occur soon after the checkout cache file is transferred from the LMS to the Application Server by the library staff.

You can scroll to different tasks using the arrows at the bottom of the window.

f To save your changes, click **Save**, then click **Close** at the bottom of the dialog box. To ignore changes, click **Cancel**.

Synchronizing the Checkout Cache

Under normal conditions, you schedule the Checkout Cache to synchronize automatically. However, Field Service personnel may ask you to perform this task manually or they may perform the task themselves.

Checkout cache synchronization works as follows:

1 Each night, the library staff generates a list of item identifiers of checked-out material from the LMS. The library staff transfers this checkout cache file to the C:\inetpub\ ftproot directory on the Application Server.

2 Checkout Cache Synchronization should be scheduled to occur after the checkout cache file is transferred to the Application Server.

3 When the Checkout Cache synchronizes, the Application Server deletes its own, older version of the checkout cache file, and uses the newly transferred file as its new checkout cache file.

To manually synchronize the Checkout Cache:

1 If have not already done, transfer the latest checkout cache file from the LMS to the Application Server.
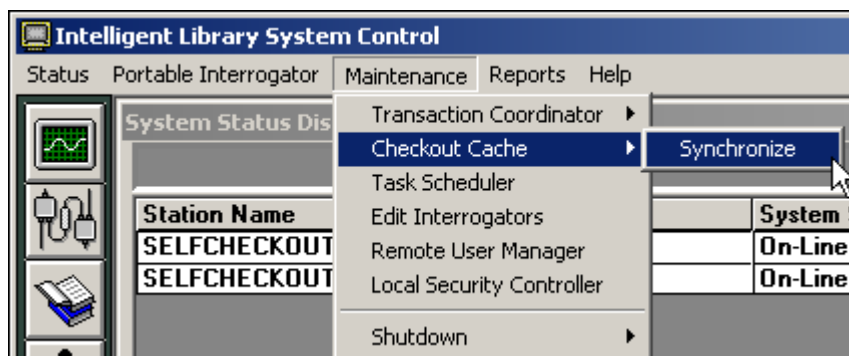
Figure 2.12 Synchronize Checkout Cache

2 From the menu, select **Maintenance > Checkout Cache > Synchronize**.

3 Type a **user name** and **password** in the ILS Login dialog box and click **OK**. The default username is **ils** and the default password is **maint**. The Checkout Cache Synchronize window displays.
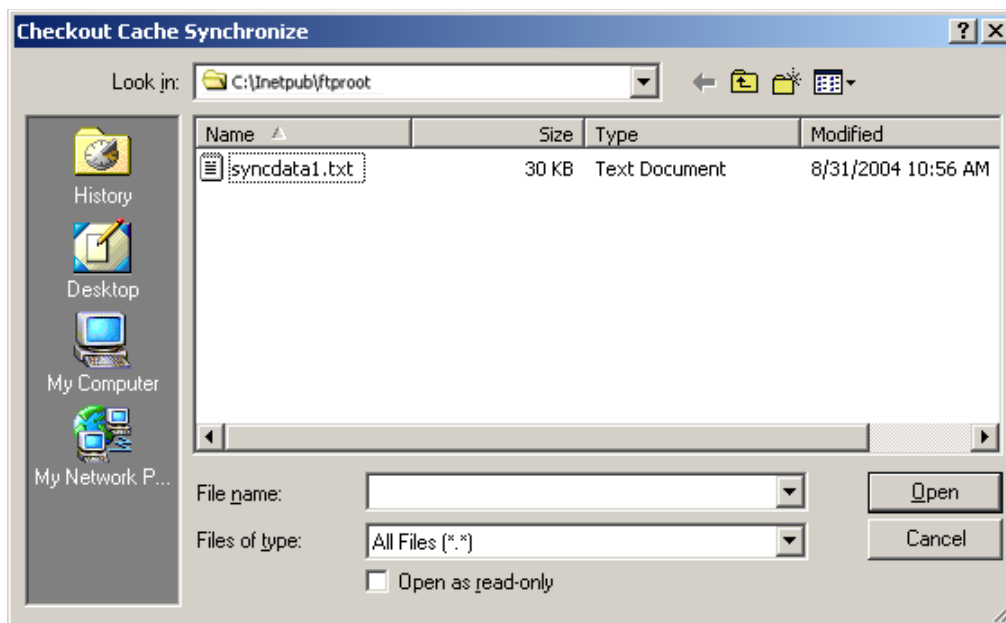
Figure 2.13 Checkout Cache file location

4 In the Checkout Cache Synchronize window, navigate to and select the checkout cache file (the one that was downloaded from the LMS), usually located at c:\InetPub\ FTPRoot. The name of the file is customizable for each library.

5 Click **Open** to start the synchronization.

When Checkout Synchronization begins, a "cache synchronization in progress" message displays.
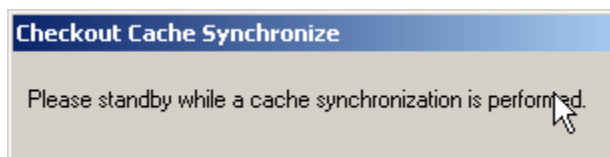
Figure 2.14 Cache synchronization in progress message

A message displays when the process is successfully completed.
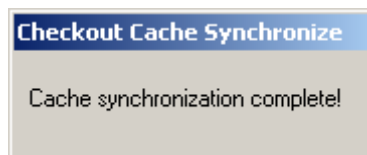
Figure 2.15 Cache synchronization complete message

Downloading Inventory from the Portable Reader

Downloading inventory information is a two-step process. First, you download the information from the Portable Inventory Reader to the Intelligent Library Controller. Then the Intelligent Library Controller converts the information to the inventory file format used by the LMS and copies it to a directory from which the LMS accesses it (using FTP).

To download inventory information from the Portable Inventory Reader to the Intelligent Library Controller:

1 Dock the Portable Data Terminal in its docking station. Inventory transfer begins immediately.
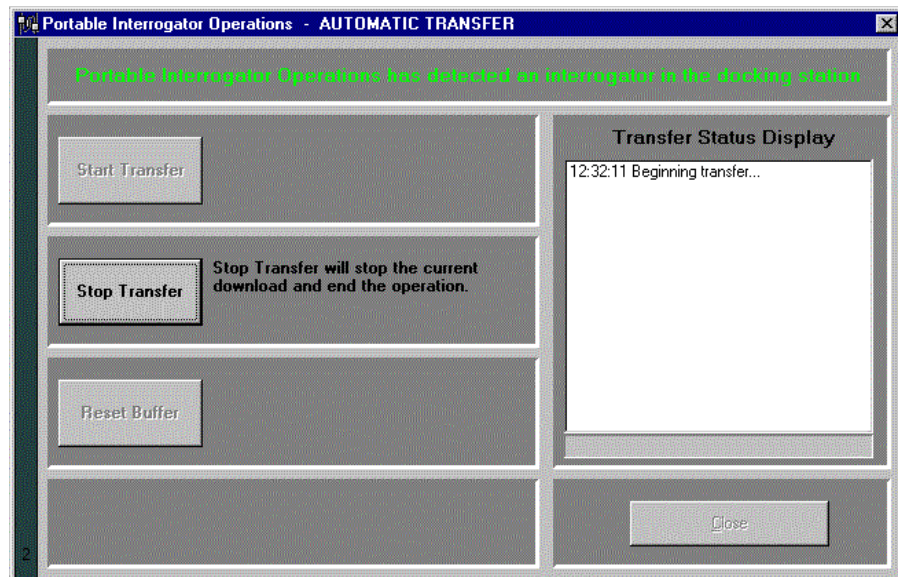
Figure 2.16 Portable Reader Operations Screen - Automatic Transfer

2 Once complete, click **Close** to close the window. The inventory file is now ready to be uploaded by the LMS.

Generating Reports

This section describes the ILS reports provided by the Intelligent Library Controller and gives instructions for generating them. Available reports include:

- **Checkout Discrepancy Report**

  Use this report only if your site allows off-line processing. This report lists off-line checkout events that were rejected by the LMS after it returned to on-line processing. See "Checkout Discrepancy Report" on page 2-14.

- **Patron Discrepancy Report**

  Use this report only if your site allows off-line processing. This report lists off-line patron status events that were rejected by the LMS after it returned to on-line processing. Before you can successfully generate this report, you must use the Offline Synchronize function (see "Synchronize Offline Transactions" on page 13-3) to move off-line transactions into the transaction database. See "Patron Discrepancy Report" on page 2-15.

- **Generic Reports**

  You specify this report's parameters to create custom reports. See "Generic Reports" on page 2-18.

- **Exit Alarm Report**

  This report lists items that caused an alarm at specified exits. See "Exit Alarm Report" on page 2-21.

- **Check In Report**

  This report lists items that failed to check in or that require special handling. See "Check In Report" on page 2-23.

After generating a report, you can view or print it. If you generate a report for a specific branch, you can save, view, or print it; or view later from an ILS Remote Monitor at another location. You cannot generate Intelligent Library Controller reports when using ILS Remote Monitor. See "Using ILS Remote Monitor" on page 5-8 for further details.

You can navigate to the most commonly requested reports (Checkout Discrepancy, Patron Discrepancy, and Exit Alarm) by using the buttons on the button bar, as well as the Reports menu.

Specifying a Time Period for Any Report

You can specify a time period in one of three ways:

- "Choose a Time Period"
- "Use the Calendar"
- "Enter the From and To information" yourself

Choose a Time Period

1 Choose the time period by using the drop-down list labelled Time Period of Interest. Choices include: Today, Yesterday, This Week, Last Week, This Month, Last Month, and All Data.

2 Enter a **From** and **To** time, or leave the fields blank to accept the default times:

From = 12:00:00 A.M.

To = 11:59:59 P.M.

Figure 2.17 Time Period fields

Use the Calendar

1 Click **From** (or **To**) to display the calendar form.

Figure 2.18 Calendar

1 Select the **month** and **year** from the drop-down lists.

2 Select the **day** from the calendar table.

3 Specify the **time**. Enter the time yourself, or select the time by pressing the up-down arrow buttons at the end of the field. Click **Now** to use the current time.

4 Click **OK**.

Enter the From and To information

▶ In the **From** and **To** fields, enter the date and time yourself. Valid date and time formats include:

Date: MM/DD/YY or MM/DD/YYYY

Time: HH:MM AM or PM

Checkout Discrepancy Report

Use this report only if your site allows off-line processing. This report lists off-line checkout events that were rejected by the LMS after it returned to on-line processing. Before you can successfully generate this report, you must use the Offline Synchronize function (see "Synchronize Offline Transactions" on page 13-3) to move off-line transactions into the transaction database.

When the LMS returns on-line, use the Offline Synchronize function (see "Synchronize Offline Transactions" on page 13-3) to move off-line transactions into the transaction database.

To generate the Checkout Discrepancy Report:

1 In the Intelligent Library System Control window, select **Reports > Checkout Discrepancy**, or click the **Checkout Discrepancy Report** button.

Figure 2.19 Checkout Discrepancy List window

2 In the Specific Report: Checkout Discrepancy List window, enter the **time period** for which to run the report. See "Specifying a Time Period for Any Report" on page 2-12 for details on the different ways to enter time criteria.

3 If desired, enter the **Item ID** of the specific item for which you are searching for which you are searching.

4 If desired, restrict the report to a specific branch by selecting that branch in the **Branch** drop-down list box. If selected, you will have the ability to save the report for viewing/printing in ILS Remote Monitor.

5 Click **Generate Report**. The report displays.

Figure 2.20 Sample Checkout Discrepancy Report

6 Resolve any discrepancies using the Library Management System.

The Checkout Discrepancy Report contains the following fields.

Table 2.1 Checkout Discrepancy Report Field Names and Data Description

Field Name	Possible Field Data	Data Description
Branch	Name of branch	The branch at which the discrepancy occurred.
Patron Identifier	ID Number	The patron ID number in this transaction.
Transaction Date	Date/Time	Date and time of the transaction.
Item Identifier	ID Number	The item number in this transaction.
Title	Book title	Book title.
Station Name	Name of Station	Station where the transaction occurred.
Final Transaction Date	Date/Time	The date and time that an off-line incomplete transaction was synchronized.
Screen Message	Text Message	Message returned from the LMS for this transaction.

Patron Discrepancy Report

Use this report only if your site allows off-line processing. This report lists off-line patron status events that were rejected by the LMS after it returned to on-line processing. Before you can successfully generate this report, you must use the Offline Synchronize function (see "Synchronize Offline Transactions" on page 13-3) to move off-line transactions into the transaction database.

To generate the Patron Discrepancy Report:

1 When the LMS returns to an on-line state, use the Offline Synchronize function (see "Synchronize Offline Transactions" on page 13-3) to move off-line transactions into the transaction database.

2 In the Intelligent Library System Control window, select **Reports > Patron Status Discrepancy**, or click the **Patron Discrepancy Report** button. The Patron Status Discrepancy window displays:

Figure 2.21 Patron Status Discrepancy List window

3 In the Specific Report: Patron Discrepancy List window, enter the **time period** for which to run the report. See for details on the different ways to enter time criteria.

4 If desired, enter the **Patron ID** for which you are searching.

5 If desired, restrict the report to a specific branch by selecting that branch in the **Branch** drop-down list box. If selected, you will have the ability to save the report for viewing/ printing in ILS Remote Monitor.

6 Click **Generate Report**. The report displays.

Figure 2.22 Sample Patron Discrepancy Report

7 Resolve any discrepancies using the Library Management System.

The Patron Discrepancy Report contains the following fields.

Table 2.2 Patron Discrepancy Report Field Names and Descriptions

Field Name	Possible Field Data	Data Description
Branch	Name of branch	The branch at which the discrepancy occurred.
Patron Identifier	ID Number	The patron ID number in this transaction.
Transaction Date	Date/Time	Date and time of the transaction.
Station Name	Name of Station	Station where the transaction occurred.
Final Transaction Date	Date/Time	The date and time that an off-line incomplete transaction was synchronized.
Screen Message	Text Message	Message returned from the LMS for this transaction.

Generic Reports

The Intelligent Library Controller stores all activity, such as patron validation, checkout, check-in, and exit alarms, as a transaction. You can generate custom reports from these activities, which list specific transactions and transaction counts.

To generate a Generic Report:

1 In the Intelligent Library System Control window, select **Reports > Generic Report**. The Generic Report window displays:

Figure 2.23 Generic Report window

2 In the Transaction Coordinator Report Generator window, enter the **time period** for which to run the report. This is the only required field. See "Specifying a Time Period for Any Report" on page 2-12 for details on the different ways to enter time criteria.

3 In the drop-down lists, select:

    a A particular Self-Checkout Station, or keep the default All Stations.

    b A particular type of transaction, or keep the default All Types. Choices include: Check In, Check Out, Patron Status, or Item Information.

    c The type of processing, or keep the default Both Online/Offline.

    d   The type of report to generate (list or count), or keep the default All Transactions List. Choices include: All Transactions Count, Discrepancy Count, Discrepancy List, Failed Transaction Count, Failed Transaction List, Successful Transaction Count, and Successful Transaction List.

4   If desired, enter the **Patron ID** for which you are searching.

5   If desired, enter the **Item ID** for which you are searching.

6   If desired, restrict the report to a specific branch by selecting that branch in the **Branch** drop-down list box. If selected, you will have the ability to save the report for viewing/printing in ILS Remote Monitor.

7   Click **Generate**. The report displays.

Figure 2.24 Sample Generic Report

The Generic Report contains the following fields.

Table 2.3 User Specified - Report for All Transaction List Field Names and Descriptions

Field Name	Possible Field Data	Data Description
Branch	Branch	Name of the branch.
Transaction date	Date/Time	Date and time of the transaction.
Station Name	Name of Interrogator	Name of the interrogator where the transaction occurred.
Status	Completed	The transaction was successfully completed on-line.
	Offline-Complete	The transaction was an off-line incomplete transaction that was subsequently successfully completed online during off-line synchronization.
	Offline-Incomplete	The transaction was not completed on-line.
	Discrepancy	The transaction was an off-line incomplete transaction that was subsequently rejected during off-line synchronization.
OffLine-OnLine	Offline	Transaction completed off-line.
	Online	Transaction completed on-line to the LMS.
Transaction Type	Patron Status	Patron scans their ID card at a Patron Self-Checkout Station.
	Checkin	An item automatically checked in to the LMS.
	Checkout	An item is scanned at the Patron Self-Checkout Station.
	ItemStatus	An item is scanned at the circulation desk.
	ExitAlarm	An item generated an alarm at an exit because it was not checked out.
Final Transaction Date	Date/Time	The date and time that an off-line incomplete transaction was synchronized.
Item Identifier	ID Number	The item number in this transaction.
Patron Identifier	ID Number	The patron ID numbers in this transaction.
Item Status	Checked Out	The item is checked out.
	Checked In	The item is checked in.
	Status Unavailable	The item's status is unknown.

8 You can view the reports on the screen, print them, or return to the previous screen.

Exit Alarm Report

This report lists items that caused an alarm at specified exits.

To generate an Exit Alarm Report:

1 In the Intelligent Library System Control window, select **Reports > Exit Alarm**, or click on the Exit Alarm Report button. The Exit Alarm Report window displays:

Figure 2.25 Exit Alarm Report window

2 In the Specific Report: Exit Alarm Report window, enter the **time period** for which to run the report. See "Specifying a Time Period for Any Report" on page 2-12 for details on the different ways to enter time criteria.

3 If desired, restrict the report to a specific branch by selecting that branch in the **Branch** drop-down list box. If selected, you will have the ability to save the report for viewing/printing in ILS Remote Monitor.

4 Click **Generate Report**. The report displays:

Figure 2.26 Sample Exit Alarm Report

The Generic Report contains the following fields.

Table 2.4 Exit Alarm Report Field Names and Descriptions

Field Name	Possible Field Data	Data Description
Transaction date	Date/Time	Date and time of transaction
Item Identifier	ID Number	The item number in this transaction
Book Title	Book title	Name of the book.
Branch	Name of branch	The branch at which the discrepancy occurred.
Exit Location	Name of the exit and/or IP Address	Name of the exit

Check In Report

This report lists items that failed to check-in or that require special handling.

To generate the Check In Report:

1 In the Intelligent Library System Control window, select **Reports > Check In**. The Check In Report window displays:

Figure 2.27 Check In Report window

2 In the Specific Report: Check In Report window, enter the **time period** for which to run the report. See "Specifying a Time Period for Any Report" on page 2-12 for details on the different ways to enter time criteria.

3 If desired, select a particular **check-in station**, or keep the default All available.

4 If desired, restrict the report to a specific branch by selecting that branch in the **Branch** drop-down list box. If selected, you will have the ability to save the report for viewing/ printing in ILS Remote Monitor.

5 Click **Generate Report**. The report displays:

Figure 2.28 Sample Check In Report

The Check In Report contains the following fields.

Table 2.5 Check In Report Field Names and Descriptions

Field Name	Possible Field Data	Data Description
Branch	Name of branch	Name of branch at which check-in occurred
Transaction Date	Date/Time	Date and time of the transaction.
Check-in Location	Name of location	Location of the check-in station.
Item ID	ID Number	The item identifier number in this transaction.
Title	Item title	Title of the item checked-in.
Location	Name of location	Location of check-in.
Checked-In	Y	Item was checked in
	N	Item was not checked-in.
OFFLine-Online	OffLine	Transaction completed off-line.
	OnLine	Transaction completed on-line to the LMS.
Alert	Y	An exit alarm was issued.
	N	An exit alarm was not issued.
Screen Message	Text of Message	The specific error message received from the LMS for this transaction.

Working with the Bridge Interface

The Bridge Interface allows libraries with non-supported circulation vendors, or no LMS at all, to use the ILS security and Staff Station reader features. Self-Checkout Stations are not available when using Bridge mode.

You can change the operation mode of the Staff Station Readers programmed as a tag pad to either check-in or checkout materials during normal operations. You can also group individual tag pads together so that you can quickly change a group to either check-in or checkout personalities.

Changing the Op Mode of a Staff Station Reader

In Bridge mode, you can change the function of the Staff Station Reader to become either a check-in or checkout device.
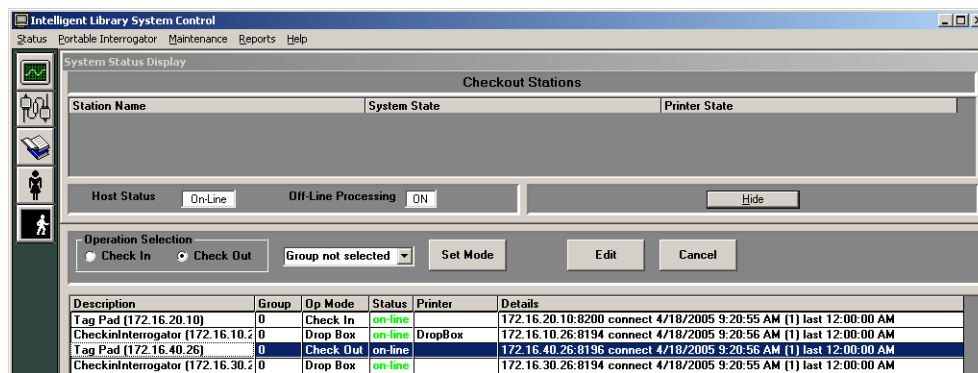
Figure 2.29 Bridge Mode

1 On the Intelligent Library Controller in the Interrogator Status area, select a **Staff Station Reader**. The description should indicate if the device is a Staff Station Reader (tag pad).

2 In the Operation Selection field, select either **Check In** or **Check Out**, as desired.

3 Click **Set Mode**. The Staff Station Reader highlighted changes its Op Mode, from either Check In to Check Out or vice versa, which you verify in the Op Mode column.

4 Click **Save** to save your changes.

5 Repeat the procedure to change the personality back.

Creating Staff Station Reader Groups

Staff Station Readers can be grouped together so that you can quickly change the personality for a group of Staff Station Readers to either check-in or checkout.

1 On the Intelligent Library Controller in the Interrogator Status area, select a **Staff Station Reader**.

2 Click **Edit**. The Edit Interrogator window displays.

Figure 2.30 Edit Interrogator Window

3 Type a **Group number** in the Group number dialog box.

4 Click **Save**.

5 Close the window using the top right-hand corner **X**.

6 Click **Save** on the main window to save your changes.

7 Repeat step 2 through step 6 for each Staff Station Reader you wish to assign to a group. You can create multiple groups.

Changing the Op Mode of Multiple Staff Station Readers

Once you have assigned multiple Staff Station Readers to a group number (accomplished at "Creating Staff Station Reader Groups"), you can now alter the check-in or checkout personality of a group with one operation.

1 On the Intelligent Library Controller in the Operation Selection area, select the function desired, either **Check In** or **Check Out**.

2 From the drop-down menu next to Operation Selection, select the **Group number** desired, for example all Staff Station Readers in Group 1.

3 Click **Set Mode**. All the Staff Station Readers in Group 1 change to reflect the new check-in or checkout personality selected.

4 Click **Save** to save your changes.

Maintenance

See "Intelligent Library Controller System Maintenance" on page 13-1 for information on maintaining the Application Server.

Display System Information

To display copyright and version information about ILS:

1 In the Intelligent Library System Control window, select **Help > About** ILS.
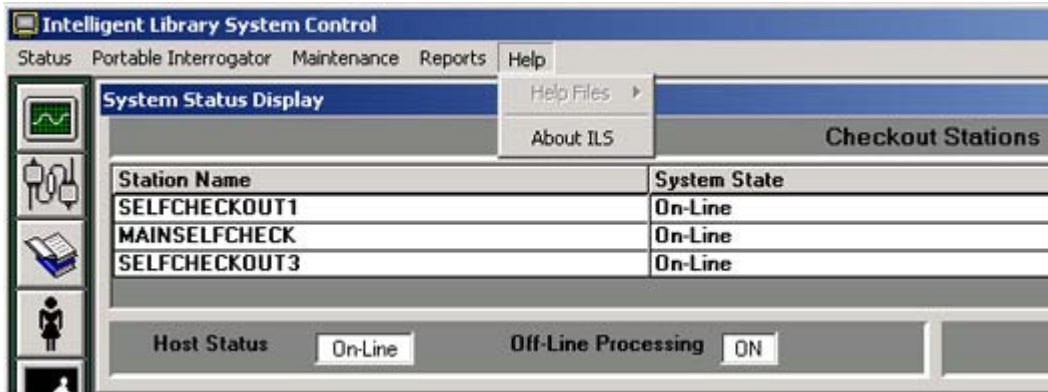
Figure 2.31 Help About Navigation

2 Click **System Info** to see a detailed listing of all components and their versions.

Figure 2.32 Help About ILS window

Notes

3

PATRON SELF-CHECKOUT STATION

The Self-Checkout Station enables library patrons to check out library materials without the assistance of library staff. The Self-Checkout Station guides patrons smoothly through the checkout process with step-by-step instructions to assist in checking out materials properly. The process is quick, efficient, and (if available) delivers a printed receipt listing the checked out materials and their due dates.

The Self-Checkout Station delivers data, item identification and its checkout status, to the Library Management System, which processes the information and updates the library records. The processing occurs almost instantaneously, allowing a speedy and efficient checkout.

✎ Note: The Self-Checkout Station is the same as the CheckStation II.

Overview

There are three steps to checking out library material:

*   "Presenting a Patron ID Card, Step 1" - Identify yourself with your library card
*   "Scanning Items for Checkout, Step 2" - Check out materials
*   "Finishing Checkout, Step 3" - Finish and collect your receipt (if available)

The windows on the Self-Checkout Station reflect this order, showing Step 1, Step 2, and Step 3, identifying the checkout process.

The following pages details the process a patron uses to check out library material.

✎ Note: The sample windows shown in this chapter may differ slightly than the windows shown on your library's Self-Checkout Station. Your library may have a different Self-Checkout Station model, operating environment, welcome logo, or other windows.

Beginning a Self-Checkout Station Session

If the Self-Checkout Station is configured to use multiple languages, the first window shown is the ILS multiple language welcome window.

Figure 3.1 ILS Multiple Language Welcome window

If configured to use a single language, the first window shown is the ILS single language welcome window.
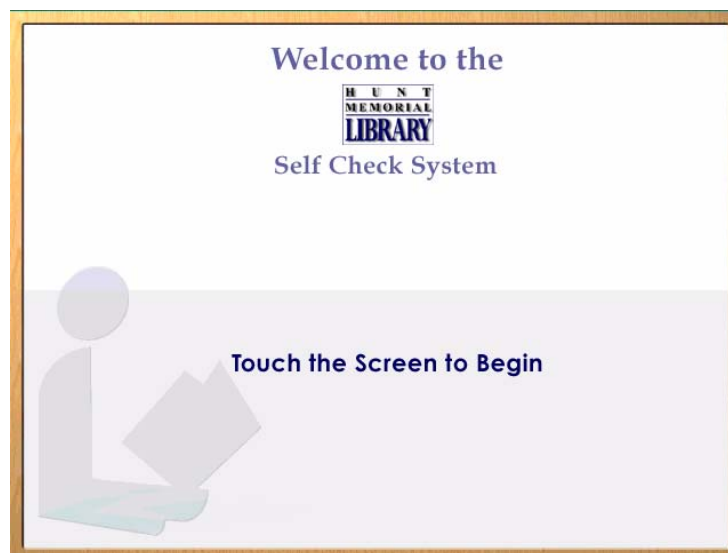
Figure 3.2 ILS Single Language Welcome window

1   Touch the screen or select a language to begin the checkout process.

-   Some libraries support multiple institutions. If so, you are presented with a multiple institution selection window in which you select the correct institution.

2   After you have removed your finger, the image changes to the Patron Identification window.

Presenting a Patron ID Card, Step 1

Have your patron ID card ready and follow the instructions shown on the window, seen here.

Figure 3.3 Patron Identification window

1 On the right side of the window, you are given visual instructions on how to present your patron ID card for authorization. Your ID card may be different than the type of ID card illustrated in the sample Patron Identification window; if so, simply follow the visual instructions on the Patron Identification window specific to your institution.

2 If you have been authorized to check out items, the Item Entry window is displayed.

3 If your site uses the optional CheckPASS feature that allows library patrons to pay library fees at a Self-Checkout Station, and if you owe fees to the library, you are prohibited from checking out library material until the fee is paid. See "CheckPASS" on page 11-1 for details.

4 If you have not been authorized, the Patron Identification Failure window appears.
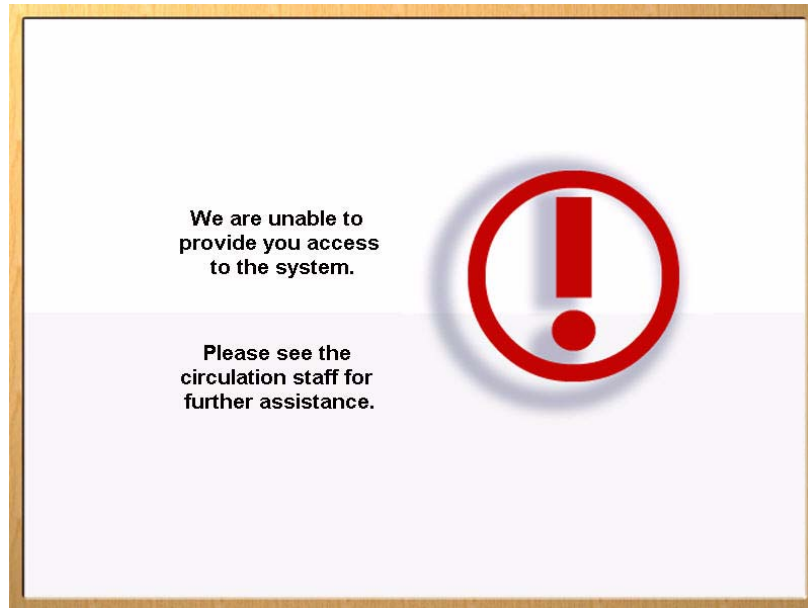
Figure 3.4 Patron Identification Failure window

Contact the librarian desk for further assistance. After a short period the Welcome window is displayed again allowing normal checkout procedure.

Scanning Items for Checkout, Step 2

Once authorized for checkout, the window advances and instructions appear on how to check out each item. On the left side of the window, the patron's name displays at the top. Once you have checked out items, a list of those items displays as shown in the Items Identification window - Item List shown below.
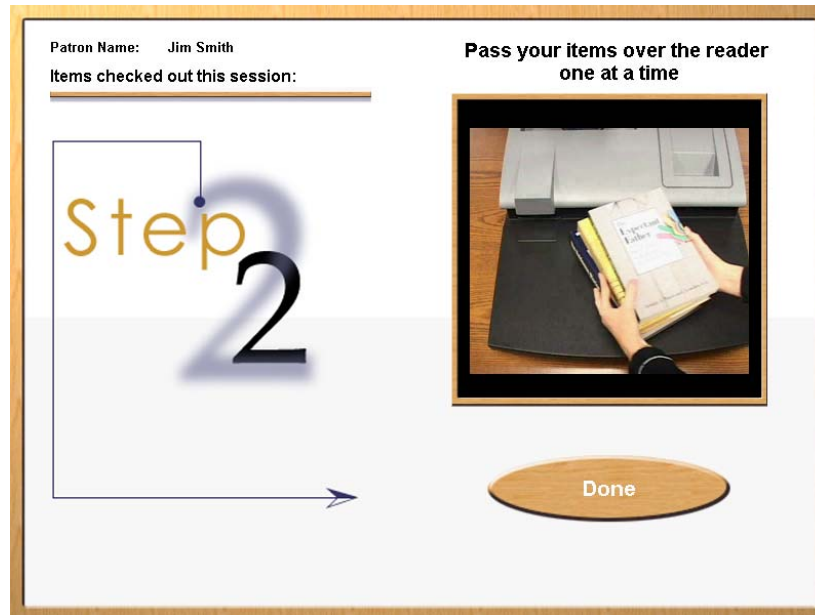
Figure 3.5 Item Identification window - Begin

1 Take one (or more) of the items you wish to check out and slowly pass it over the surface area of the item identification pad. You do not need to slide it on the pad in order for the item to be identified. Simply move the item over the pad in a smooth fashion, about 4 inches (10 cm) above the pad area.

2 Repeat the above step for each item you want to check out. As you pass the item over the pad, the system identifies each item and lists it on the left side of the window. Some institutions may provide additional information along with the item name.
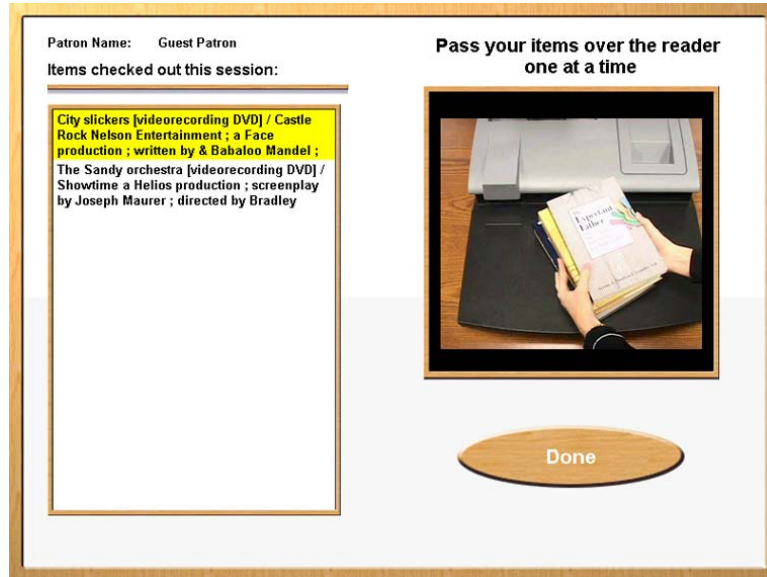
Figure 3.6 Items Identification window - Item List

At anytime in the checkout process you may touch **Done** to complete your checkout session. The **Done** button is on the right bottom of the window.

If you have checked out more items than can display on the window, the list automatically scrolls to show the most recent items at the top of the list. To see items that have already scrolled off the bottom of the list, touch the **Down Arrow**. Press the **Up Arrow** to see the most recent items checked out.
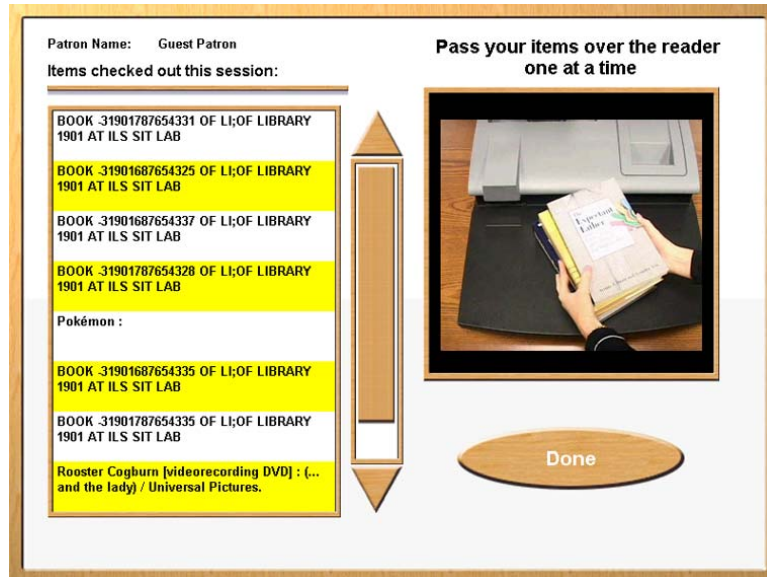
Figure 3.7 Items Identification window - Scroll

3 Press **Done** to end your session.

Viewing Items that Could Not be Checked Out

If any item you tried to check out is not accepted, a message appears indicating the system was unable to process the item. Listed are the title (if available) of the item and the reason for denied access. If the title is not available, No Match appears next to Title.
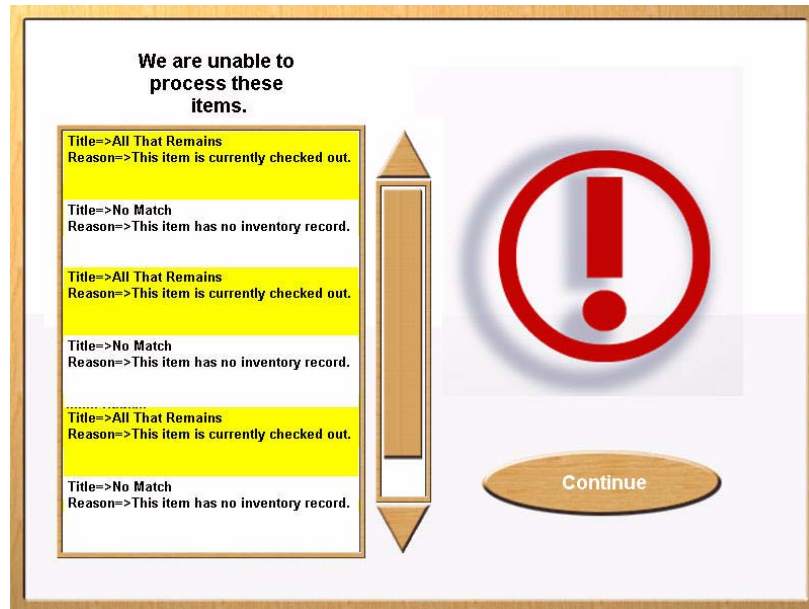
Figure 3.8 Item Identification window - Failure

If numerous items have been rejected so that all cannot be fully displayed on the left, a scroll bar appears to the right of the list. To see items that have already scrolled off the bottom of the list, touch the **Down Arrow**. Press the **Up Arrow** to see the most recent items.

Contact your librarian for assistance with items that were not successfully checked out. You may continue with the check out of additional items by returning to the Item Identification window.

Press **Continue** to continue your session.

Finishing Checkout, Step 3

The Step 3 window displays when you have finished checking out all your items and touched **Done**. The window instructs you to collect your printed receipt and shows you the total number of items checked out.
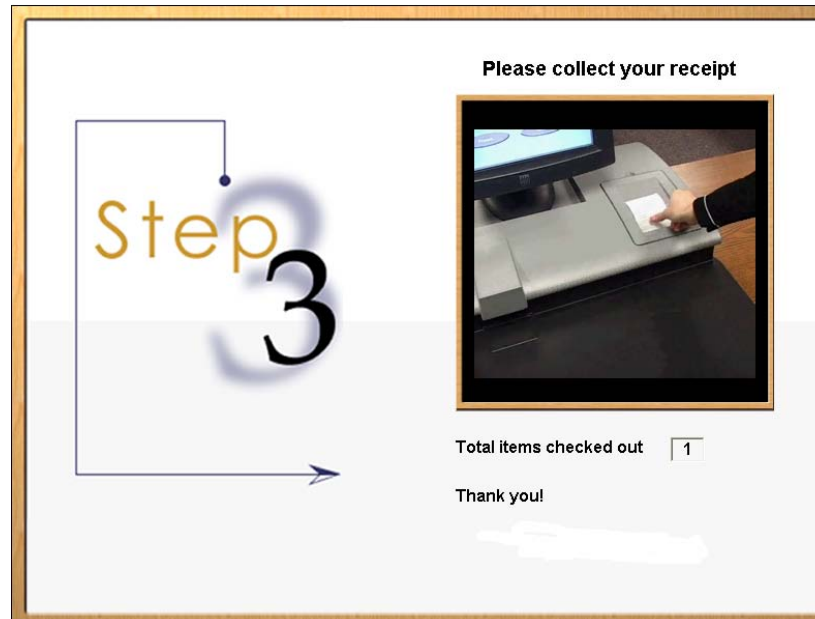
Figure 3.9 End Session window

Collect the printed receipt from the receipt dispenser. Your receipt lists the items you have checked out as well as the return due date for each item.

Note: Some institutions may not provide a printed receipt.

Loading Roll Paper

When the paper runs low or out, follow these directions for replacing the roll paper for the Self-Checkout Station's printer.

1 Remove the printer cover on the Self-Checkout Station.

Paper Roll
Release Lever
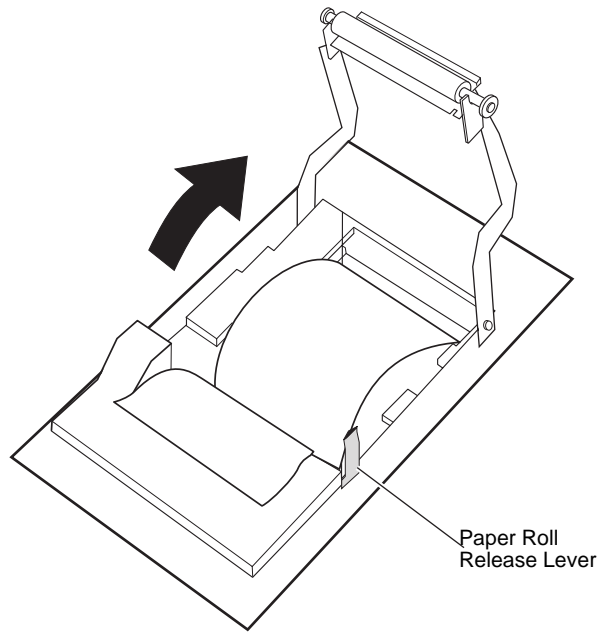
Figure 3.10 Paper Roll Release

2 Press the paper roll release lever to the front of the unit and swing the paper guide up and away from the printer.

Insert paper in
this direction.

Do not insert paper
in this direction.
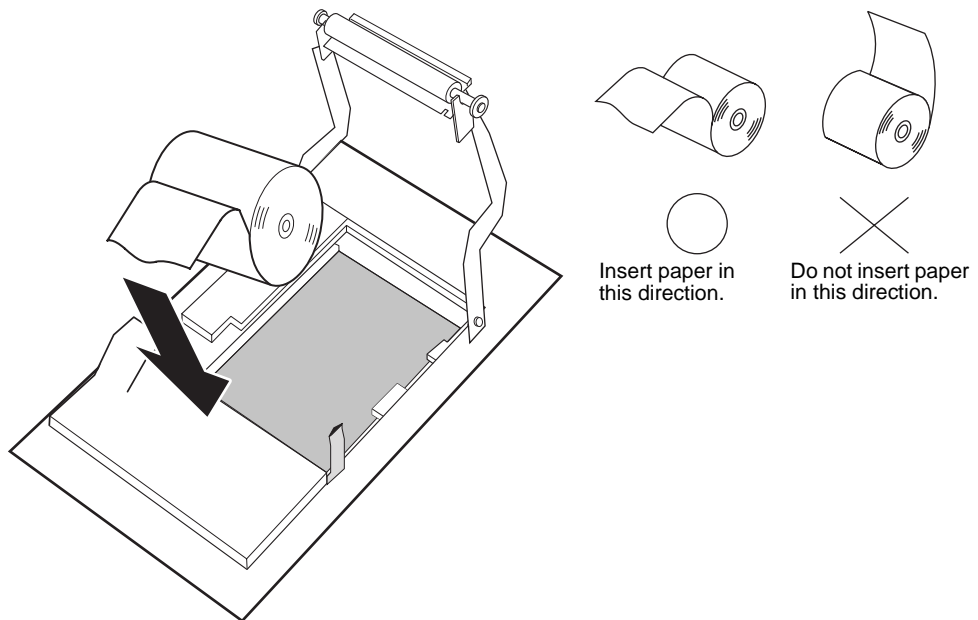
Figure 3.11 Insert Paper

3 Remove the empty roll and lower in the new roll, with the paper facing the correct direction.

4 Pull the paper out a bit, as seen below in Figure 3.12, "Lower the Paper Guide."
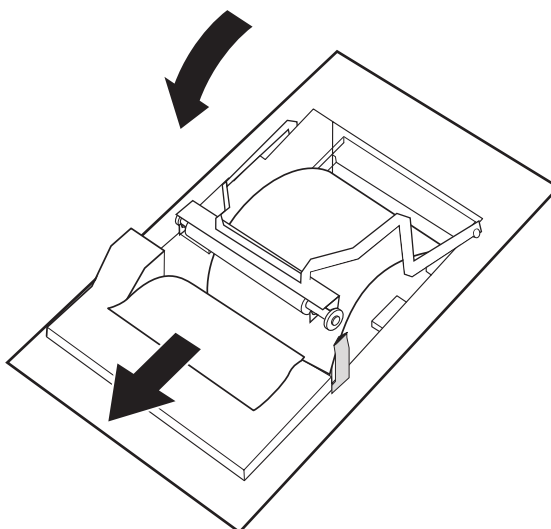
Figure 3.12 Lower the Paper Guide

5 Rotate the paper guide back down until you position the guide in between the main roll and the paper fed underneath the paper guide.

6 Once the paper guide clicks into place, the paper cutter should activate and partially cut the paper. If not, then reseat the paper guide again. If the cutter still fails to activate, reboot the Self-Checkout Station and try again.

Powering On the Self-Checkout Station

The following procedure powers on a Self-Checkout Station:

Power On/Off Switch
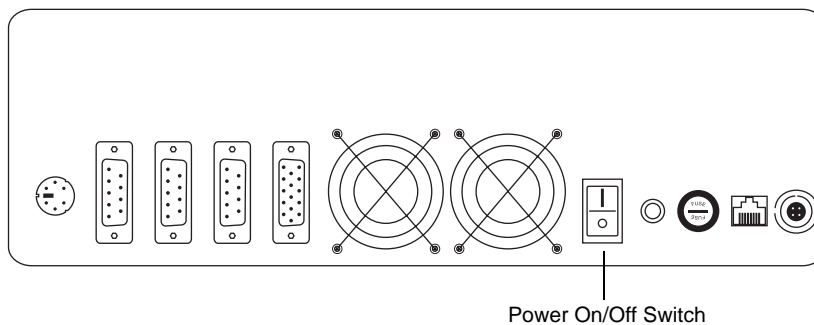
Figure 3.13 Turning On the Self-Checkout Station

1 On the back panel of the Self-Checkout Station, flip on the power switch.

2 The Self-Checkout Station starts, logs in, and launches the CheckPC program automatically.

Powering Off the Self-Checkout Station

The following procedure shuts down a Self-Checkout Station using CheckVIEW:

1 Launch CheckVIEW on the library staff's computer by clicking **Start** > **Programs > Checkpoint Systems > CheckVIEW Monitor** from the library staff's computer.

2 Access the specific Self-Checkout Station by selecting **View** from the menu and then select one of the **Display (1-4)** options for the desired Self-Checkout Station.

3 On the keyboard, press **CTRL** + **SHIFT** + **DEL**.

4 Click **Shut down**. The Self-Checkout Station enters a shut down sequence until it states that Self-Checkout Station can be turned off.

Power On/Off Switch
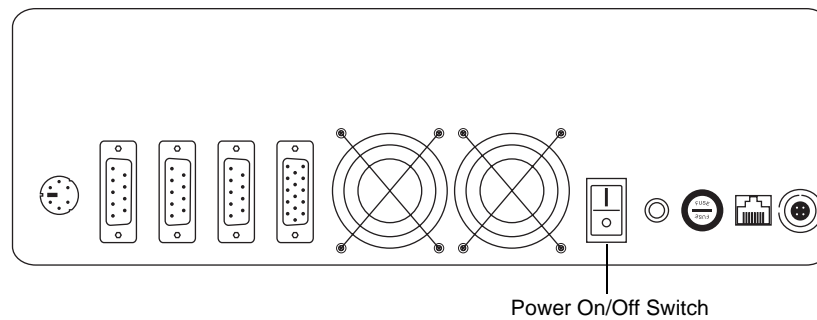
Figure 3.14 Turning Off the Self-Checkout Station

5 Go to the Self-Checkout Station and turn off the power switch.

Notes

PORTABLE INVENTORY READER

Overview

The Portable Inventory Reader is an easy-to-use wireless long range reader that changes how library staff take inventory. The Portable Inventory Reader combines convenience with versatility, using a lightweight, handheld portable data terminal connected to an extendable inventory wand. This makes it easy to read items in hard-to-reach areas, and, because of the sophisticated antenna design and electronics, the Portable Inventory Reader becomes a very long-range reader. This is very useful for taking inventory or trying to locate materials that have not been shelved properly.

The Portable Inventory Reader consists of two units:

• An inventory wand

• A portable data terminal

The handheld inventory wand, using a built-in antenna to scan for circulation circuits, connects to a Portable Data Terminal (PDT), which stores the information retrieved from and accessed by the wand. The PDT enables data to be uploaded or downloaded from the Intelligent Library Controller, providing both inventory and searching capability.

The Portable Inventory Reader enables a fast, efficient and accurate method for taking inventory of library materials.

Inventory Wand

Portable Data Terminal

Figure 4.1 Portable Inventory Reader

Inventory Wand LED Indicators

The inventory wand uses three LED lights:
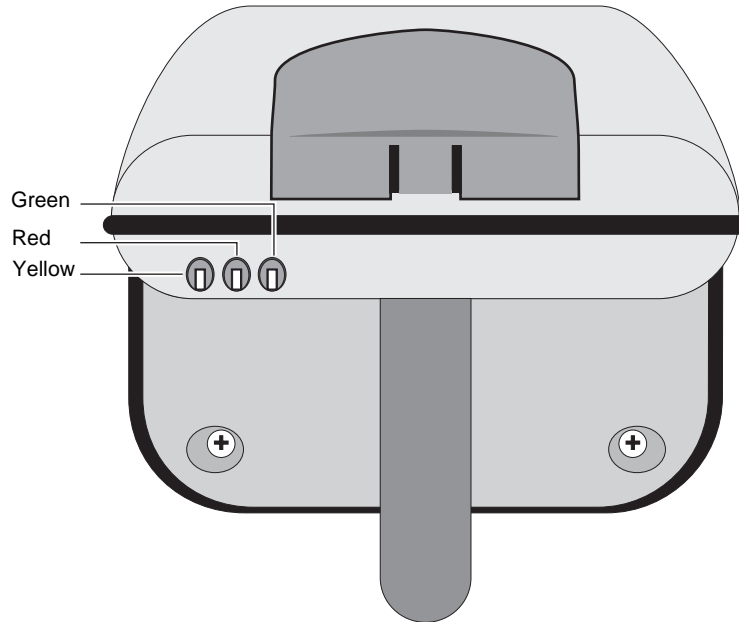
Figure 4.2 Wand LED Indicators

Table 4.1   Wand LED Indicators

LED	Description
Green	The power is on
Red	Circulation circuit is being read
Yellow	Low battery condition

Charging the Inventory Wand Battery

Prior to using the inventory wand for any significant inventory collection or inventory search session, ensure that its battery is fully charged to guarantee that the entire collection is inventoried all at once.
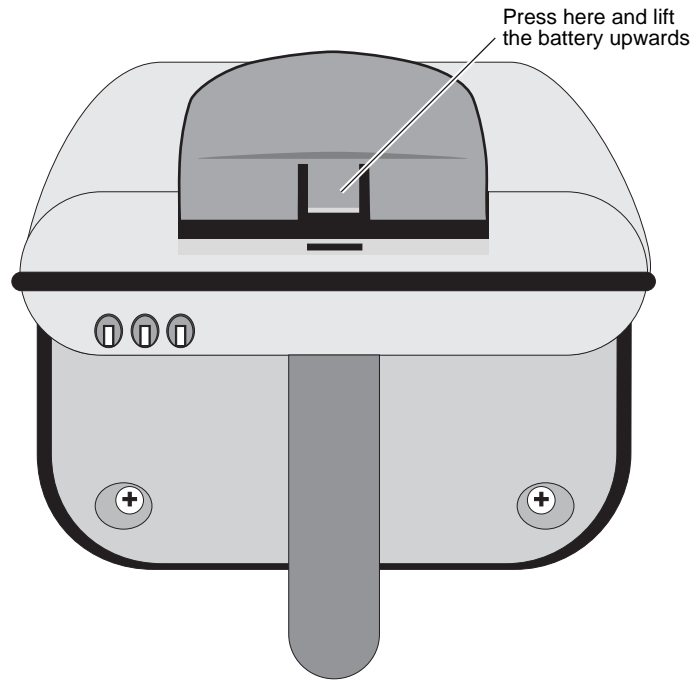
Figure 4.3 Extracting Inventory Wand battery

To extract the battery from the inventory wand:

1 Rotate the inventory wand so that the antenna is facing away from you as shown in "Extracting Inventory Wand battery".

2 Press the tab in the middle of the battery and lift it carefully upwards.

3 Once disconnected, rotate the battery until you see the power connection jack.
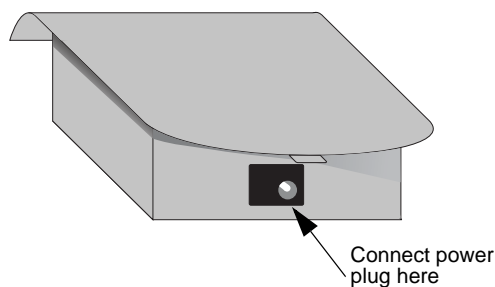
Figure 4.4 Inventory Wand power plug connection

4 Using the cable from the battery charger, connect the battery to the battery charger and plug the adapter into an outlet to begin charging. The estimated charging time is 4 to 6 hours.

There is an LED indicator on the battery charger that indicates when the battery is completely charged.

5 When charging completes, disconnect the power plug. Insert the front of the battery (with the tab) first into the wand's battery receptacle, then rotate the back of battery down until it clicks into place.

Maintaining the Portable Data Terminal

This section details how to charge and turn on and off the portable data terminal.

Charging the Portable Data Terminal

Before using your terminal for the first time, charge the battery fully using the CRD 2800 cradle or synchronization cable. Your terminal is equipped with a memory backup battery that automatically charges from the main lithium-ion battery. This backup battery retains data in memory when the terminal's battery is removed, and takes several hours to charge when you first use your terminal.

✎ Note: If you remove your lithium-ion battery before the backup battery is fully charged, data may be lost. For this reason DO NOT remove the battery within the first ten hours of use.

When battery voltage is low, a warning message displays indicating the battery needs to be charged.

There are two methods to charging the PDT:

1 Using the Serial Charging Cable

2 Using the Universal Cable Cup

Using the Serial Charging Cable to charge the battery

1 Insert the cable into the bottom of the terminal.

Serial Charging
Cable
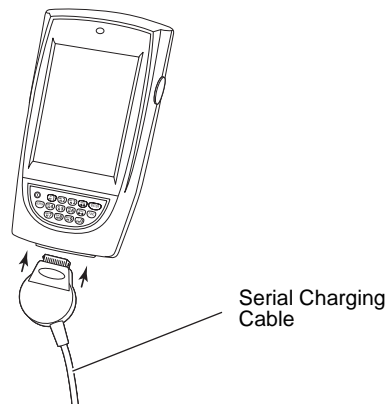
Figure 4.5 Insert Synchronization Cable

2 Plug the power cable into a wall outlet and plug the other end into the battery charging receptacle on the side of the synchronization cable.

Serial Charging Cable
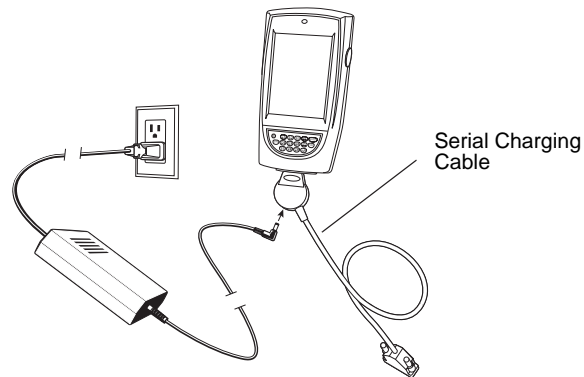
Figure 4.6 Battery charging with serial charging cable

Using the Universal Cable Cup to charge the battery

To charge the battery using the Universal Cable Cup:

1 On the cable cup, ensure the locking tabs are in the open position (up).

2 Insert the PDT into the cable cup.

3 Press down on the two locking tabs.

Locking Tabs
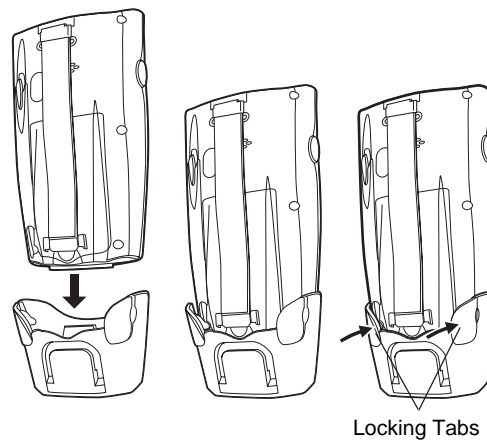
Figure 4.7 Insert PDT into cable cup

4 Lightly pull on the cable cup to ensure that it is securely attached to the terminal.

5 Open the rubber cap covering the power port.

Rubber Cap
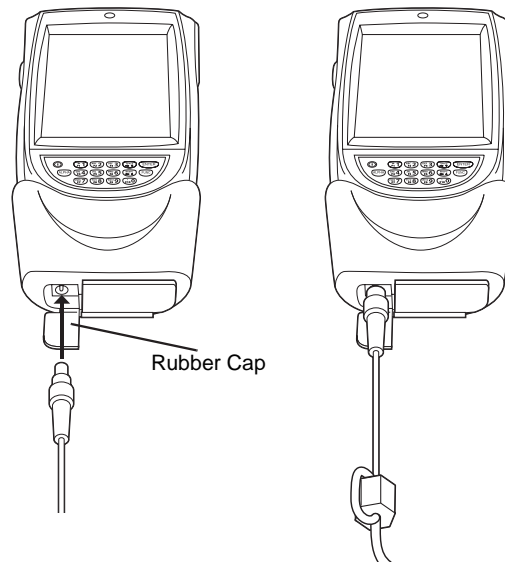
Figure 4.8 Connecting power cable

6 Plug the power connector into the power port. The battery is fully charged after approximately 2 1/2 hours.

Powering On and Off the Portable Data Terminal

1 To turn on the PDT, press the red power button on the lower left-hand side of the terminal to turn on the unit.
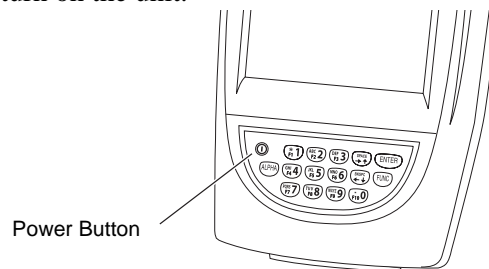
Power Button

Figure 4.9 Powering On the Portable Data Terminal

✎ Note: When not using the Portable Data Terminal within a set amount of time, the device enters a Power Save mode, meaning the device powers down. To turn it back on press the red power button. You are returned to the last window presented prior to shut off.

2 To turn off the unit, press and hold the power button until the screen turns grey, then press the power again.

Using the Portable Data Terminal

In this chapter the word tap is used instead of click because the stylus supplied is used to tap the touch screen. There are no double-clicks on the Portable Data Terminal unit as all actions are accomplished by a single tap. The stylus is stored in a silo on the back of the Portable Data Terminal.

Please refer to the **Symbol Portable Data Terminal Series Quick Reference Guide** for more information regarding use of this device.

Turning On/Off Backlight

Use the key combinations below to adjust the backlight.
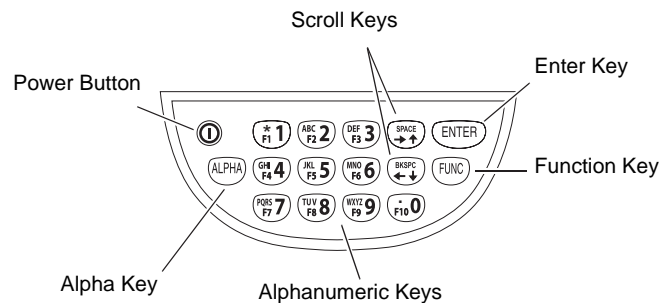
Figure 4.10 Backlight On/Off

Table 4.1   Remote User Manager Access Privileges

Keys	Description
Press and hold ⓘ	Turns the display backlight and keypad backlight on and off.
	When both backlights (display and keypad) are off, the backlights turn on in the following order when the button is held:
	• First the display backlight turns on, continue to hold, then the keypad backlight turns on.
	• When either backlight is on, the backlights turn off when the power button is pressed and held.
Press (FUNC) + (PQRS F7 7)	Decrease display backlight (decrease brightness).
Press (FUNC) + (TUV F8 8)	Increase display backlight (increase brightness).

The backlight turns off after a configurable amount of time.

✎ Note: You can alter the setting in Start > Settings > System > Backlight.

Checking the Status of the Batteries

It may become necessary to check the status of the Portable Data Terminal's battery power. Use the following procedure:

1 Tap the **Start** icon in the upper left hand corner of the window.

2 Tap the **Settings** menu item.

3 Tap the **System** tab at the bottom of the Settings Panel window.
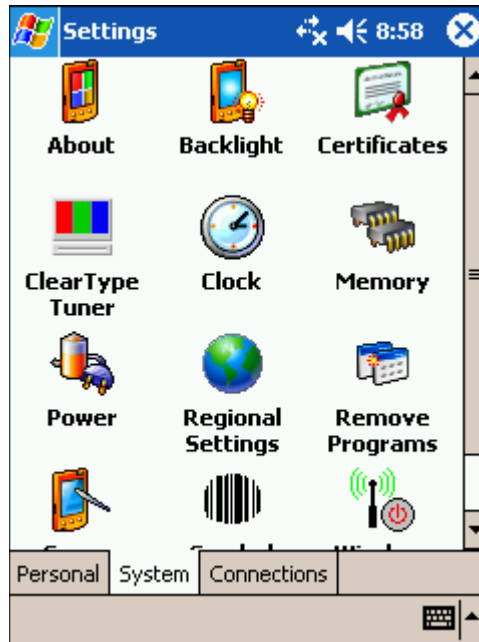
Figure 4.11 Settings Window

4 Tap the **Power** icon. The Battery Status window displays. This window shows you the power status of both the main and the backup batteries.
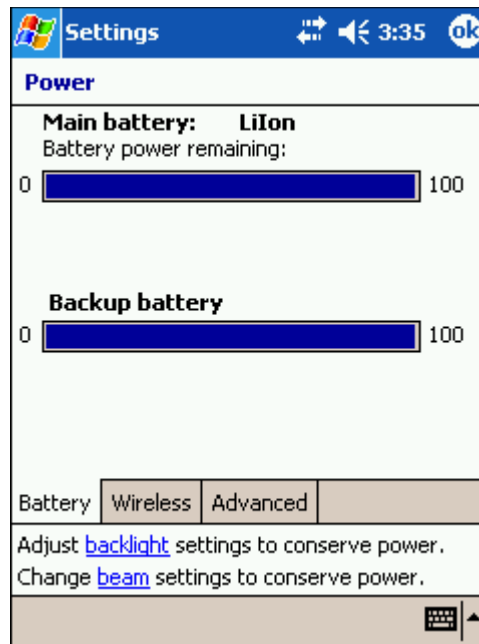
Figure 4.12 Battery Status

A warning displays if either battery is low.
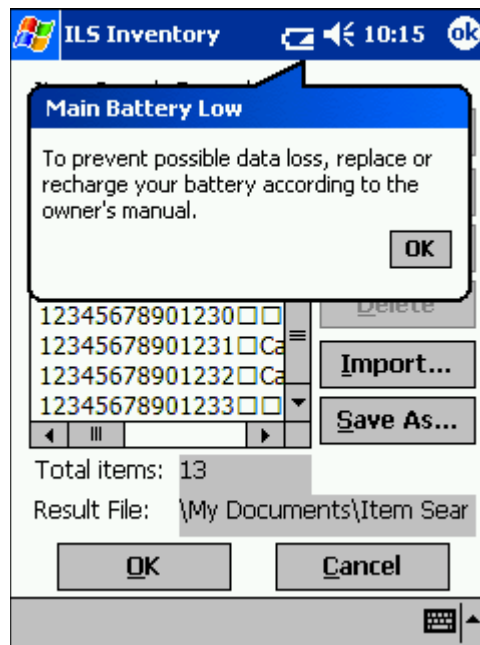
Figure 4.13 Low Battery Warning

Performing a Reset

If your PDT stops responding to input from buttons or the screen, reset it by performing a soft or hard reset. Only perform a hard reset if a soft reset fails to clear the problem.

Performing a Soft Reset

A soft reset restarts the terminal and saves all stored records and entries.

⚠️ Caution   Files that remain open during a warm boot may not be retained. DO NOT perform a soft reset if the terminal is suspended. Press the power button to wake the terminal.
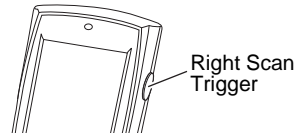
Figure 4.14 Soft reset buttons

▶ To perform a soft reset, press (ENTER) and (FUNC) keys while holding down either the left or right scan trigger and then releasing the keys.

The unit resets, during which the display shows a startup screen.

Performing a Hard Reset

A hard reset restarts your Portable Data Terminal terminal and erases all stored records and entries, including any extra programs installed in the Main Memory such as the ILS Inventory program. Therefore, never perform a hard reset unless a soft reset does not solve your problem.

✎ Note: You can restore any data previously synchronized with your computer during the next ActiveSync operation.

⚠️ Caution: With a hard reset, the current date and time, formats, preferences, and other settings are restored to their factory default settings.

To perform a hard reset:

1 Remove the hand strap above the locking screw by sliding the end of the strap towards the bottom of the unit.
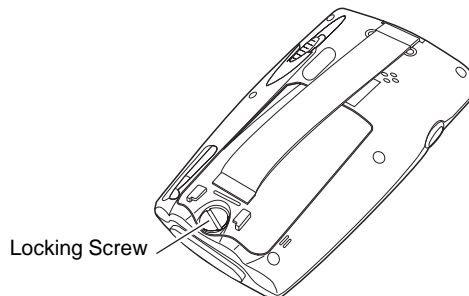
Figure 4.15 Locking screw

2 Turn the locking screw counterclockwise until the cover releases from the terminal and lift the battery door away from the terminal.
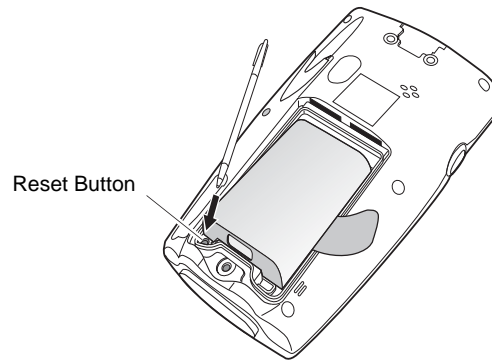
Reset Button

3 While holding down the (FUNC) button, use the tip of the stylus (or similar object without a sharp tip) to gently press the **Reset** button.

4 Release the (FUNC) button.

5 Replace the battery cover and hand strap and press the ⊙ button. As the terminal initializes its unique Flash File system, the Symbol splash screen displays for about a minute.

6 Follow the prompts when **Aligning the Screen** appears to perform an initial setup of the terminal.

Collecting Inventory Data

Now that the Portable Data Terminal has been initialized, you are ready to begin collecting inventory information.

1 Connect the synchronization cable from the inventory wand to the Portable Data Terminal.

Synchronization Cable
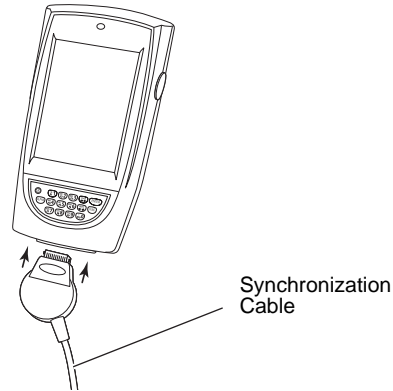
Figure 4.16 Attaching Synchronization Cable to Portable Data Terminal

2 Turn on the Portable Data Terminal by pressing the **red button** in the lower-left hand corner of the device.

Power Button
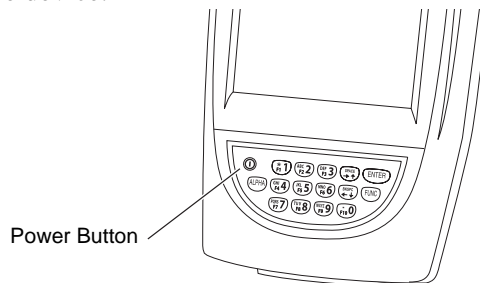
Figure 4.17 Powering On the Portable Data Terminal

Once you have powered on the Portable Data Terminal, you are presented with the ILS Inventory main menu window.
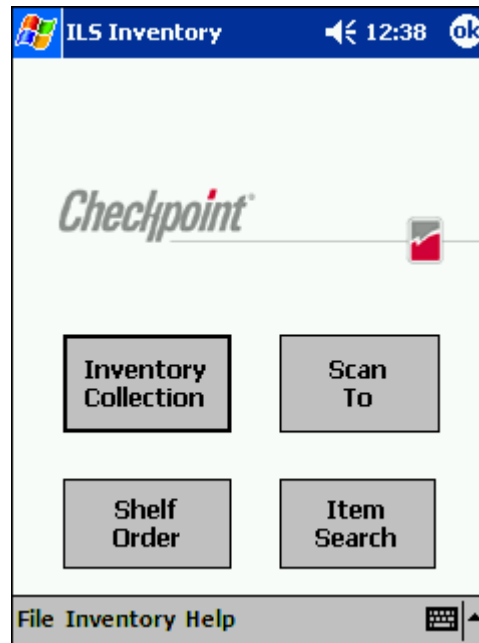
Figure 4.18 ILS Inventory Main window

✎ Note: If you do not see the main ILS Inventory window, tap the Start button in the upper-left hand corner of the screen. Tap on the ILS Inventory menu item in the start menu to launch the program.

3 Tap **Inventory Collection** located in the center of the screen.
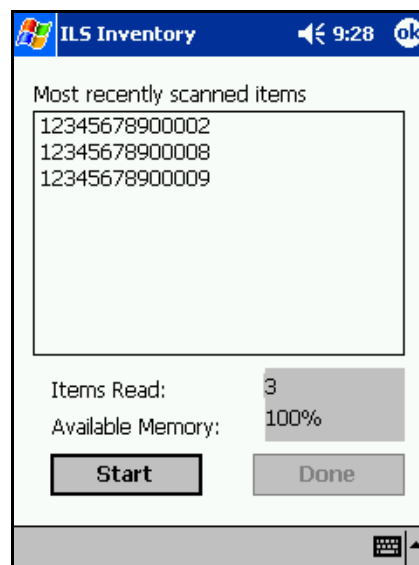
Figure 4.19 Inventory Collection

4 Tap **Start** located in the bottom-left hand corner of the screen.

5 If a previous inventory collection file was not transferred to the ILS Server, you will be asked if you want to add (append) to the file.

- Selecting **Yes** continues the previous inventory collection and new items are added to the file.

- If you select **No**, you are asked to confirm that you do not wish to keep the existing data. Tap **OK** if sure and a new inventory file is created. Tap **Cancel** to append to the file (as if you had selected Yes).

- If you want to transfer the previous file after selecting Yes, you can immediately tap **Done** to initiate a file transfer.

6 Begin scanning for items.
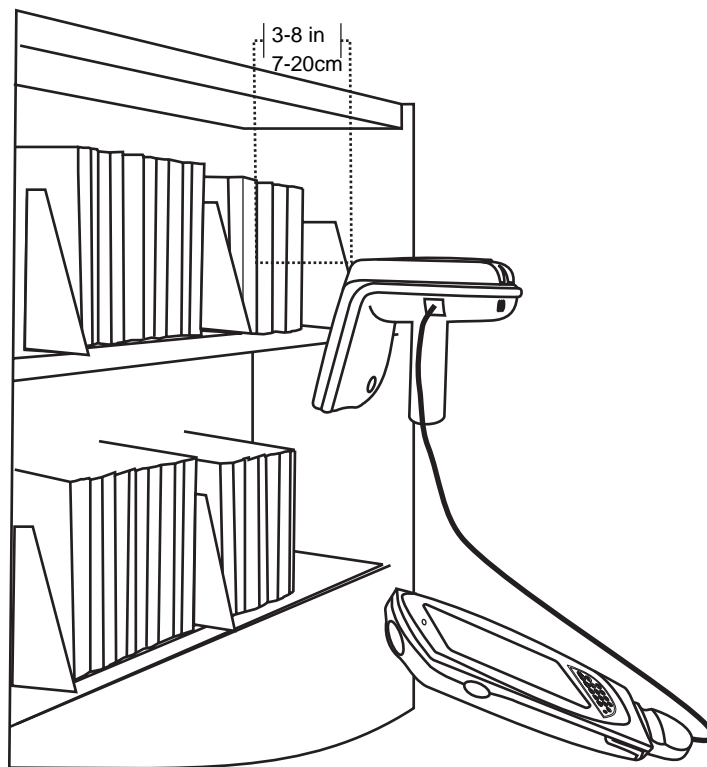
Figure 4.20 Scanning Books

Hold the wand in your hand about three inches (7 cm) from the material you wish to scan. Notice that the red light on the wand blinks, indicating that the wand is detecting circulation circuits. The wand detects Circulation Circuits up to a distance of 8 inches (20 cm); therefore, it is important to keep the wand focused on the intended inventory items to avoid unwanted data from being collected.

Alternatively, you can use the barcode scanner of the PDT to scan for barcodes. Press either the left or right scan trigger button to activate the barcode scanner, which beams from the front of the PDT.

Figure 4.21 Inventory Collection In Progress

Once you begin scanning, the following information displays in the ILS Inventory screen:

- **Most recently scanned items**

  The bar code number for that circuit displays on the Portable Data Terminal in the Most Recently Scanned Items field.

- **Items Read**

  Field displays the total number of inventory tags read over time.

- **Available Memory**

  Field displays the percentage of memory still available.

7 Once completed scanning, tap **Done**. See "Transferring Inventory Data" on page 4-16 for instructions on data transfer.

Transferring Inventory Data

Once you complete scanning inventory, follow these instructions to transfer the data.

1 After you have finished collecting inventory by tapping **Done,** a dialog window displays asking if you want to transfer the data collected. Tap **OK** to do so.

✎ Note: If you wish to continue the inventory collection after you have pressed Done, press Cancel to prevent file transfer and re-enter inventory collection mode.

2 Unplug the cable from the bottom of the Portable Data Terminal.

3 Dock the Portable Data Terminal into the cradle. A Transferring window displays on the Portable Data Terminal while data is transferring to the Intelligent Library Controller.
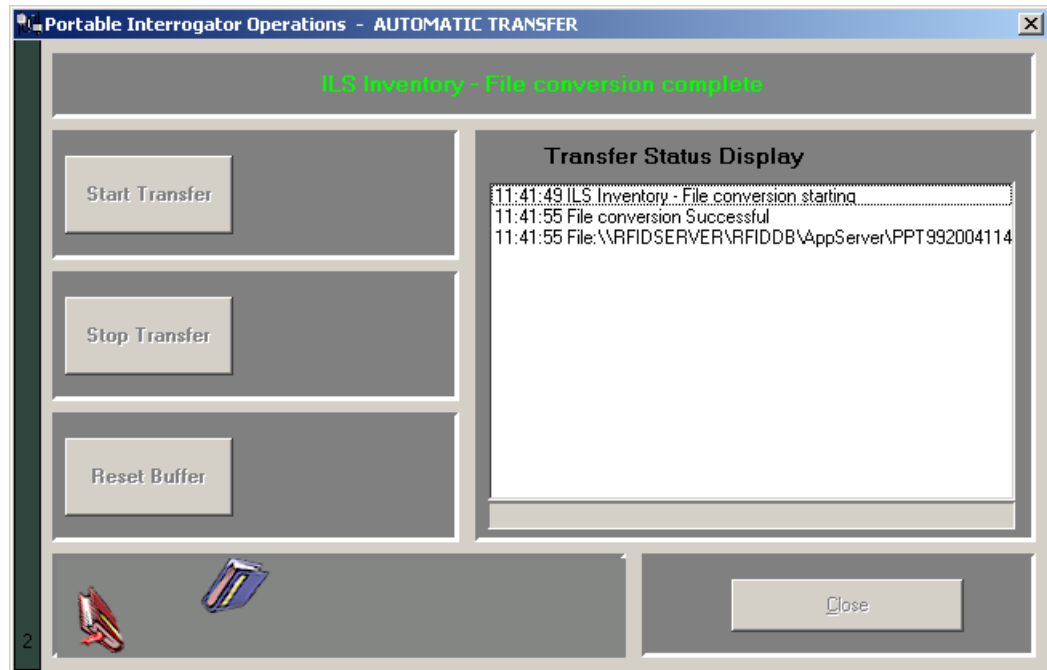
Figure 4.22 Portable Interrogator Operations

4 Once the transfer is completed, the Intelligent Library Controller displays the Portable Inventory Reader Operations window. The inventory you transferred is converted by the Intelligent Library Controller to a text file containing the list of barcodes. The file name and location is displayed in the Transfer Status Display window. When the process is finished, click **Close** on the Portable Interrogator Operations window.

The Intelligent Library Controller then converts the information to the inventory file format used by the LMS and copies it to a directory from which the LMS can copy it (using FTP).

5 The Portable Data Terminal displays Transfer Complete. Tap **OK** to return to the ILS Inventory Main window.

You may begin another inventory collection by selecting Start. Or, exit to the main window by clicking **OK** found at the top-right of the screen.

Searching the Inventory

Use this function to search for missing or desired materials. Library material must have a circulation circuit attached to it for this function to succeed. Also, it is helpful if scanning for more than one item that you prepare an Item Search List file before searching.

Preparing an Item Search List File

An Item Search List file contains the barcodes you wish to find. The file uses the .psl file extension and can be created:

- By formatting a report from the circulation system
- By formatting an Inventory Search or Shelf Order Search file conducted with the Portable Reader
- Using a text editor (like Notepad) to manually enter item information

Create the file in the following manner:

1 Gather your barcode data of missing items. If you have conducted an Inventory Search, you can use this file by changing the extension to ".psl" and following the formatting identified in step 2.

   If you are producing a report from your circulation system, ensure that it follows the parameters explained in the step 2.

2 Enter the data by typing or copying and pasting the data into a simple text editor, like Notepad, shown in the figure below: "Sample PSL File".

   - The barcode numbers must be in a single row, with a return at the end of each line.
   - If you wish the call number and book title to appear associated with that barcode, you must separate the information with a pipe symbol "|".
   - You can also have just a call number or just a book title appear as well with the associated barcode. If you want just a Book Title to appear with that barcode, you must include two pipes sequentially to account for the empty call title column.

   If your data resides in a more complex spreadsheet program like Microsoft Excel®, it is not recommended that you copy the data from Excel and paste it into your text editor as the correct pipe symbol is not used to separate data. However, you can manually alter the file if you choose to paste the data from a spreadsheet.

	Item Search.psl - Notepad
Barcode only	1234567890123
Barcode with Call #	1234567890124|Call#
Barcode with Call # and Book Title	1234567890125|Call#|Book Title
Barcode with only Book Title	1234567890125||Book Title
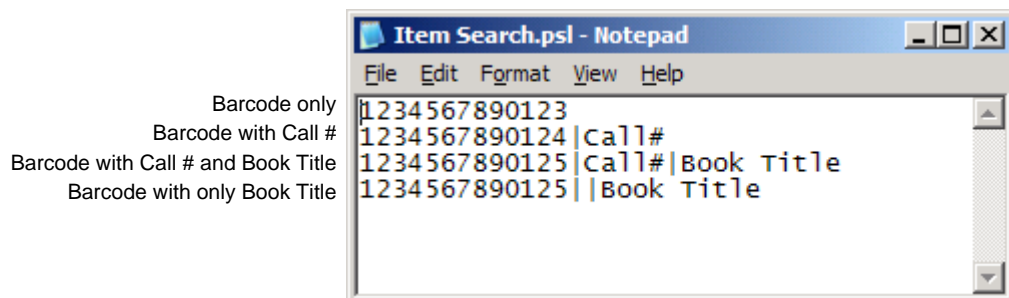
Figure 4.23 Sample PSL File

3 Once the data is entered, save with a descriptive name and close the file. Note the location where you saved the file.

4 Navigate to the location of your file and change the extension of the file to PSL. For example, "Item Search.txt" becomes "Item Search.psl".
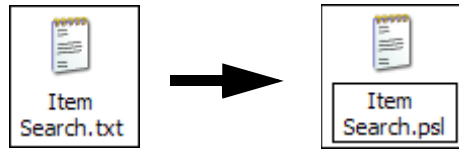
Figure 4.24 PSL File Name Change

The next section informs you how to transfer this file to the Portable Data Terminal using the docking station.

Transferring the Search List File

To transfer a search list file (or files) from the Intelligent Library Controller to your Portable Data Terminal

1 Place the search file (for example, Item Search.psl) in the synchronization directory for your Portable Data Terminal. There should be a shortcut to this directory on the desktop of the Intelligent Library Controller.

2 Once the file is in the correct location, dock the Portable Data Terminal and the file(s) is automatically transferred.

3 Once the file(s) has been transferred remove the Portable Data Terminal from its cradle.

4 If ILS Inventory is not running on your Portable Data Terminal, launch the program by tapping the **Start** button in the upper-left hand corner of the screen, then tap **ILS Inventory**.

Importing the Search List File

To import the search list file:

1 From the main screen of ILS Inventory, tap **Item Search**. The Item Search window displays.

Figure 4.25 Search List File

2 Follow either instruction for importing barcodes:

a If you are searching for a single barcode, you can input the number directly into the Item Search Barcode field. Tap **Add** when finished and the barcode number appears below.

The name of the search result file is stated in the Result File field (for example, "search2.*" in the example above) unless you use the Save As to enter a different name. See "Saving Custom Search Files" on page 4-34 for details.

b If you have created a search file, tap **Import**. The Import window displays.
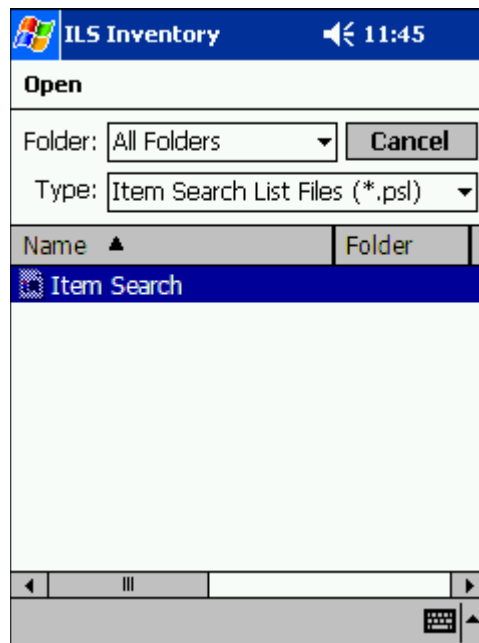
Figure 4.26 Search File Import

c Ensure that Item Search List Files (*.psl) is selected as the type, using the down arrow at right to select the type of file displayed. Your search file appears below in the Name field (the example shows "Item Search" already highlighted).

d Tap the **file name** (for example, you would tap **Item Search**, shown above), and the file imports automatically. If the import is successful, you are returned to the Item Search window. If unsuccessful, double-check that the format of the file is a plain text file that uses the extension *.psl. See "Preparing an Item Search List File" on page 4-17 for more details about preparing the file.

3 In the Item Search window, the Barcodes field displays the barcodes that will be used in searching for items.
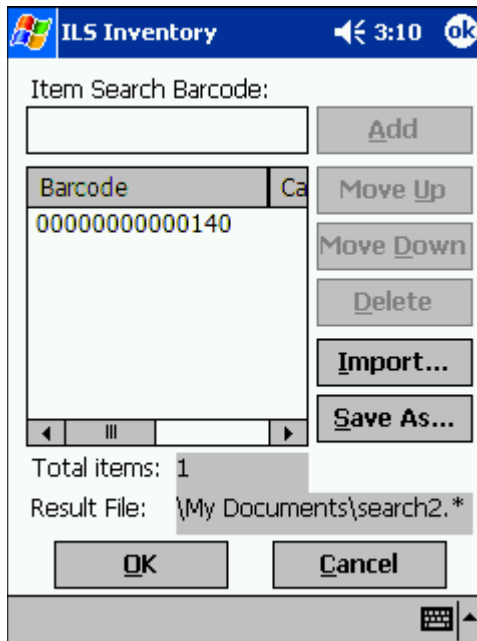
Figure 4.27 Item Search Input

If you need to move or delete a particular barcode, highlight it and select the appropriate action at right.

4 Tap **OK**. You see the ILS Inventory window.
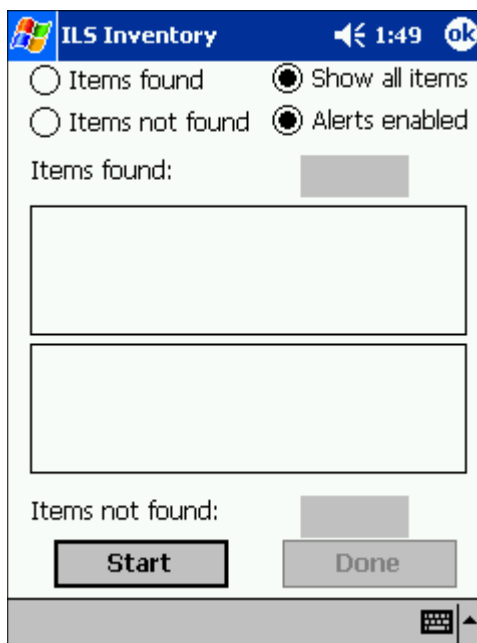
Figure 4.28 Inventory Search

5 Tap **Start** to begin your inventory search.

Scanning for Inventory

There are several ways to view information on the Search Mode window.

- **View 1 - Items Found**

  Indicates all of the barcodes that were found.

- **View 2 - Items Not Found**

  Indicates all of the barcodes that the system has not yet found.

- **View 3 - Show All Items**

  Shows both the Items Found and the Items Not Yet Found. This is the default selection.

- **Alerts Enabled**

  When the Alerts enabled is selected, an alert displays and sound occurs for each item found. The search mechanism stops temporarily, allowing you to locate the item found on the shelf. To disable this feature, tap it.

1 Tap a different view at any time to change.

2 Use the inventory wand to scan for barcodes, sweeping back and forth. See "Scanning Books" on page 4-14 for a details.

Notice that the barcode display field(s) reflects changes in the status of the search items, depending on the search option you chose. Items found (the field above) are listed as you find them. Items not found (the field below) are removed from the list as you find them.
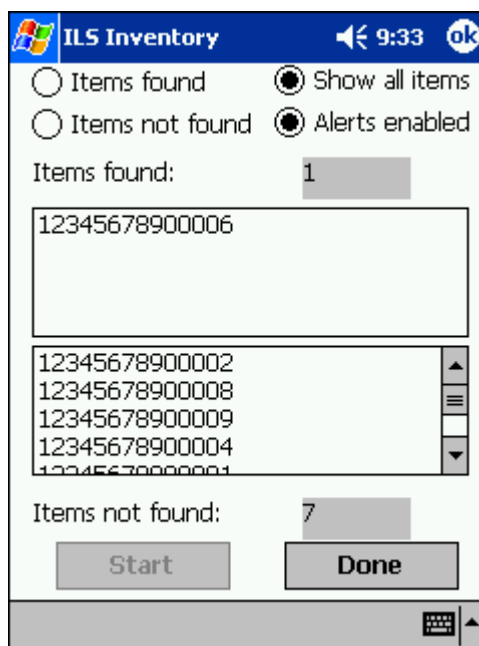
Figure 4.29 Item Search window

Notice that the red light on the wand flickers when it finds circulation circuits. It is important to keep the wand focused on the intended inventory items to avoid unwanted data from being collected.

✎ Note: While the red light may flash when the scanner detects any tag, a barcode only displays in the Items found list if it matches an item present in your Search Items list.

3 When a barcode is found; the barcode, shelf location, and title of the item (if all configured in your search file) display. Retrieve the item, if necessary, and tap **Continue** to resume the search.
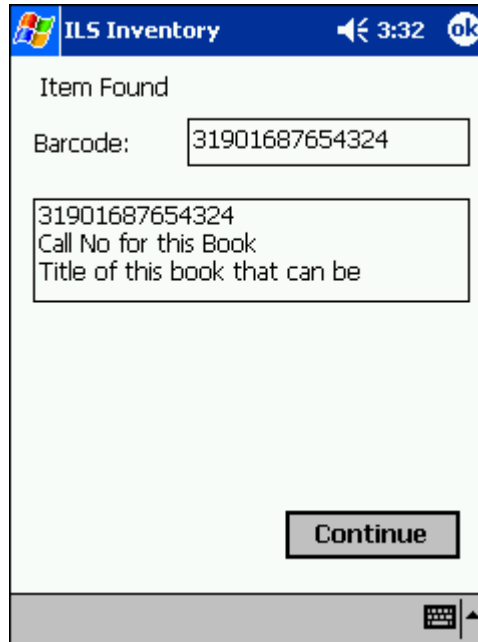
Figure 4.30 Item Found Alert

4 When finished, tap **Done** at the bottom of the screen. If all of the items are found, an alert window notifies you.

Figure 4.31 All Items Found

5 Tap **OK** to continue and the Item Search result files are generated.

A dialog box displays asking you to dock the Portable Data Terminal to transfer the Search Results file.
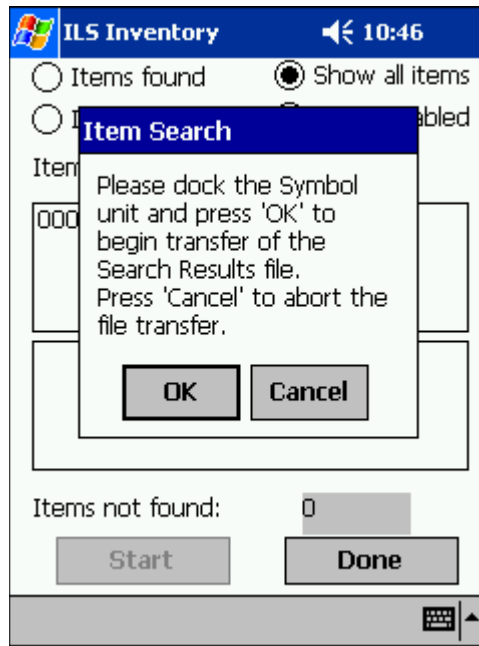
Figure 4.32 Portable Data Terminal Docking

6 Tap **OK** and place the Portable Data Terminal into the docking station to begin the transfer.

✎ Note: In Wireless mode the file transfer is automatic. If you would like to abort the file transfer, tap **Cancel**. You are returned to the Item Search window.

The Search Results files are transferred to the configured directory on the Intelligent Library Controller. Refer to "Transferring Inventory Data" on page 4-16 for details.
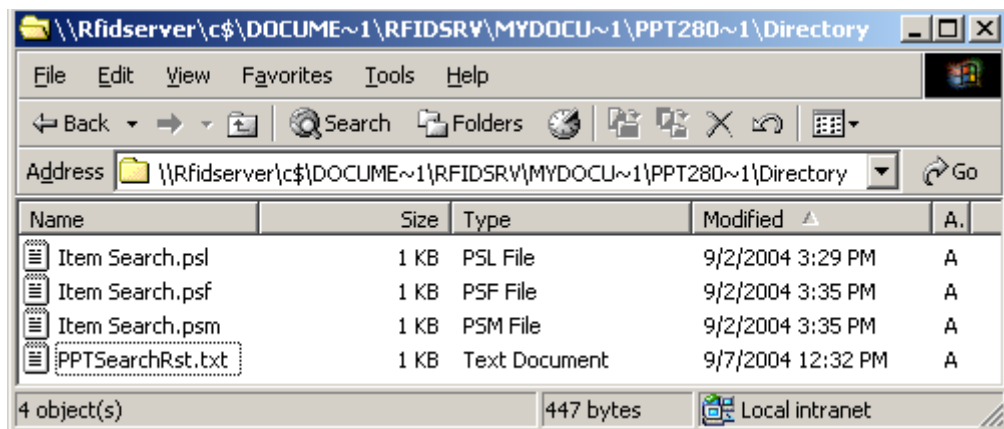
Figure 4.33 Sample search results directory

The "PPTSearchRst.txt" file lists all of the barcodes searched. If a barcode was found, the date and time of the search are listed. If the barcode was not found, the date and time are not listed.

Two additional files are also created to list the items found and the items not found.

- The Items Found file uses the file extension *.psf.
- The Items Not Found file uses the file extension *.psm.

These files may be used to perform another search, or may be processed as results of the search on the circulation system.

Every time you upload the results of an Item Search, the search results file "PPTSearchRst.txt" is overwritten with the new data automatically. Thus, if you wish to retain the previous data, save the file elsewhere before synchronizing.

Conducting Shelf Order Search

Use Shelf Order Search to verify the contents of a shelf against a shelf order list generated by the Library Management System. Items scanned are compared to the shelf order list to determine if they are in order, not in the list, or not found. This enables verification and sorting of the shelf contents.

Selecting or Creating a Shelf Order Search File

A Shelf Order Search file is identified by a *.pso file extension and is transferred from the Intelligent Library Controller to the Portable Data Terminal. To select or create a Shelf Order file:

1 Create the file by running a Shelf Order report on the circulation system or by creating a Shelf Order file manually.

2 See "Preparing an Item Search List File" on page 4-17 for details on how to format the file, as you configure the file using the exact same methodology as in preparing a Search List file, only you use the ".pso" extension when saving the file.

Transferring the Shelf Order File

To transfer a Shelf Order file:

1 To transfer a shelf order file (or files) from the Intelligent Library Controller to your Portable Data Terminal, place the file (for example, Shelf Order.pso) in the synchronization directory for your Portable Data Terminal. There should be a shortcut to this directory on the desktop of the Intelligent Library Controller.

2 Once the file is in the correct location, dock the Portable Data Terminal and the file is automatically transferred.

3 Once the file(s) has been transferred, remove the Portable Data Terminal from its cradle.

4 If ILS Inventory is not running on your Portable Data Terminal, launch the program by tapping the **Start** button in the upper-left hand corner of the screen, then tap **ILS Inventory**.

Importing Shelf Order File

To import a Shelf Order file:

1 From the main screen of ILS Inventory, tap **Shelf Order**. The Shelf Order window displays.

Figure 4.34 Shelf Order Window

2 Follow either instruction for importing a shelf order list:

a If you are checking a single barcode, you can input the number directly into the Shelf Order Barcode field. Tap **Add** when finished and the barcode number appears below.

The name of the search result file is stated in the Result File field (for example, "sorder1.*" in the example above) unless you use the Save As to enter a different name. See "Saving Custom Search Files" on page 4-34 for details.

b If you have created a shelf order search file, tap **Import**. The Import window displays.
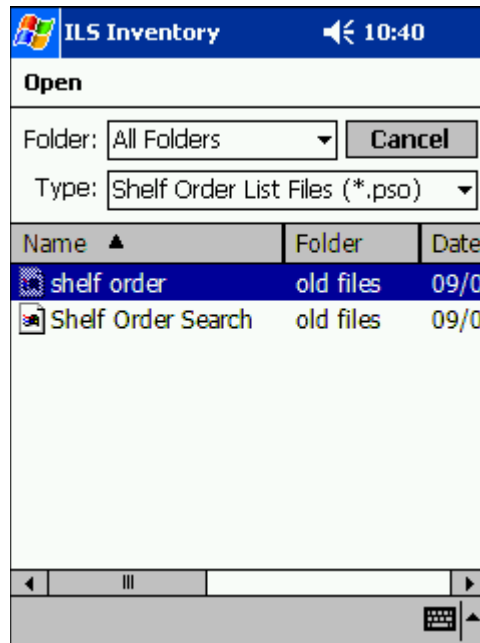
Figure 4.35 Search File Import

c Ensure that Shelf Order List Files (*.pso) is selected as the type, using the down arrow at right to select the type of file displayed. Your search file appears below in the Name field (the example shows "shelf order" already highlighted).

d Tap the **file name** (for example, you would tap **shelf order**, shown above), and the file imports automatically. If the import is successful, you are returned to the Shelf Order Barcode window. If unsuccessful, double-check that the format of the file is a plain text file that uses the extension *.pso. See "Preparing an Item Search List File" on page 4-17 for more details about preparing the file.

3 In the Shelf Order Barcode window, the Barcodes field displays the barcodes that are used in searching for items.
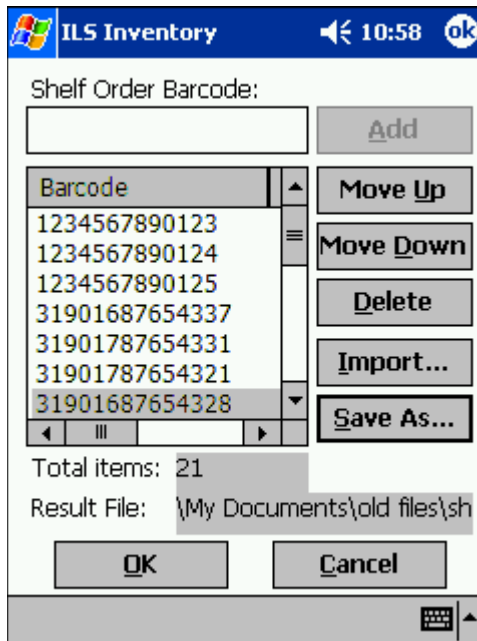
Figure 4.36 Item Search Input

If you need to move or delete a particular barcode, highlight it and select the appropriate action at right.

4 Tap **OK**. You are taken to the ILS Inventory window.
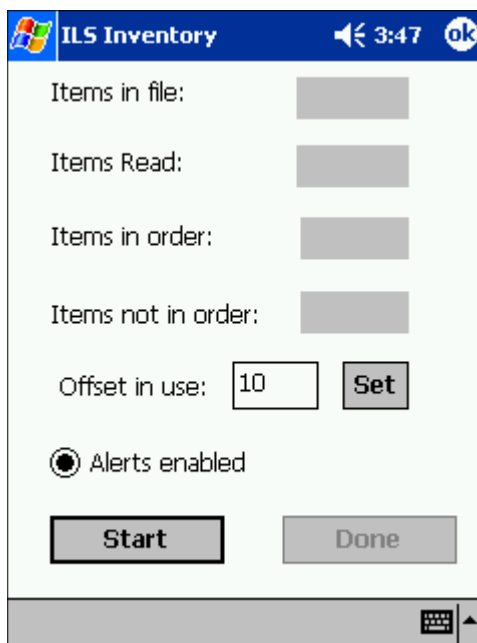
Figure 4.37 Shelf Order Start

Shelf Order Search Window

The Shelf Order Search window displays the following information:

Figure 4.38 Shelf Order Searching

- **Items in file**

  The original count of the items read from the Shelf Order file.

- **Items Read**

  The number of items read during the search.

- **Items in order**

  The number of items that were read in shelf order.

- **Items not in order**

  The number of items that were read that are not in shelf order.

- **Offset in use**

  Adjust the offset by changing the number and tapping **Set**.

  This indicates the current setting used to determine how many barcodes can be separated (or offset) before they are considered out of shelf order. So in the example above, a barcode would be considered out of order if found separated by 10 barcodes.

  An offset is needed because the wand can read items in a random order within its read range, allowing for adjustment when items of different thickness are being scanned. For example, poetry books are usually slim while reference books are much thicker, thus allowing more or less books within the read range of the inventory wand.

- **Alerts Enabled**

  When checked, an alert displays and a sound occurs for items of interest. Tap this button to disable alerts. Alerts occur for the following reasons:

Out of range	• The item read was found in the Shelf Order list, but was not located close enough to the last item in the shelf order.
Not in list	• The item read was not found in the Shelf Order list.

  See for more details.

5 Tap **Start** to begin your inventory search. You must scan items at the starting shelf location in the list. The Offset in use and the Alerts enabled settings may be changed at any time during the search.

6 When finished, tap **Done**. If all of the items shelf order list are found, an alert window notifies you. Tap **OK** to continue. See for details on what to do next.

Shelf Order Alert

When a Shelf Order Alert displays for an item that:

- Is not in the list, the barcode displays. The Item Status field indicates Not in List.

- Is not in shelf order, the barcode, shelf location, and title displays. The Item Status field indicates Out of Range.
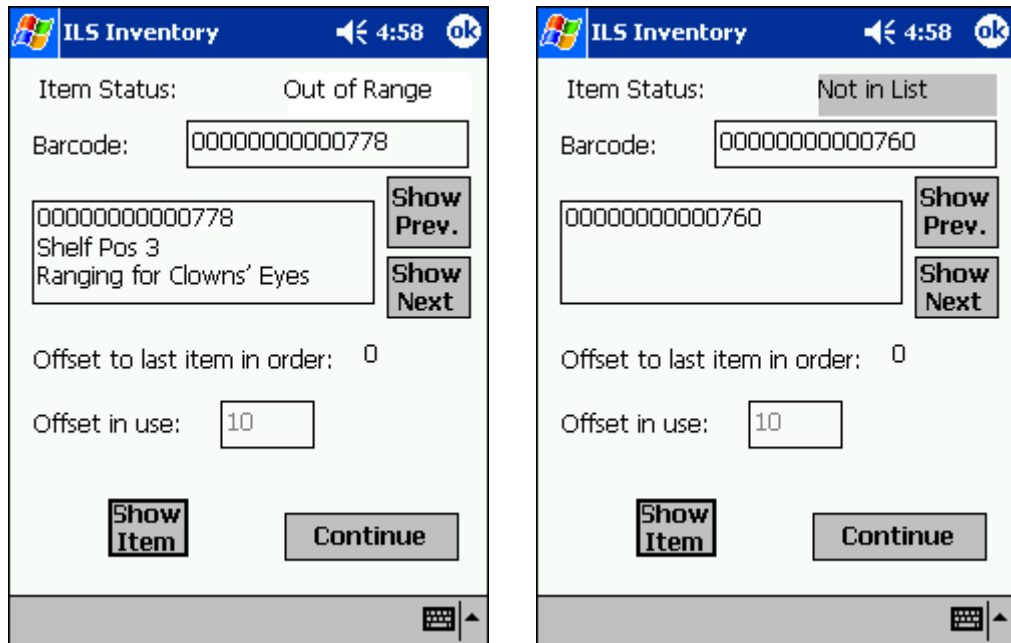
Figure 4.39 Shelf Order Alert - Out of Range/Not in List

- **Show Prev**

  Displays the previous item read. You can tap this button to display the last item in order to assist in locating the item on the shelf.

- If Not in List, this item should probably be removed from the shelf, since it is not in the shelf order list.

- If Out of Range, this item should be repositioned on the shelf in the correct order.

- **Show Next**
  Displays the next item read.

- **Show Item**
  Returns the display to the item that is not in the list.

Tap **Continue** when you are ready to resume the scan. Be sure to start at the position you were in when the alert occurred.

"Offset in use" and "Alert enable" settings may be changed once the search is resumed.

Shelf Order Results

When the shelf order search is completed, the Shelf Order Results window is displayed. The Shelf order results window shows the counters from the completed search.

From the results you can:

- Create a new search list

- Create files of various types from each of the items with results

- View the results of each items

Notice that there is no prompt to perform file transfer at this point because you need to specify the type of file you wish to transfer. Once the file has been created, you would then dock the Portable Data Terminal to copy the file to the Application Server.
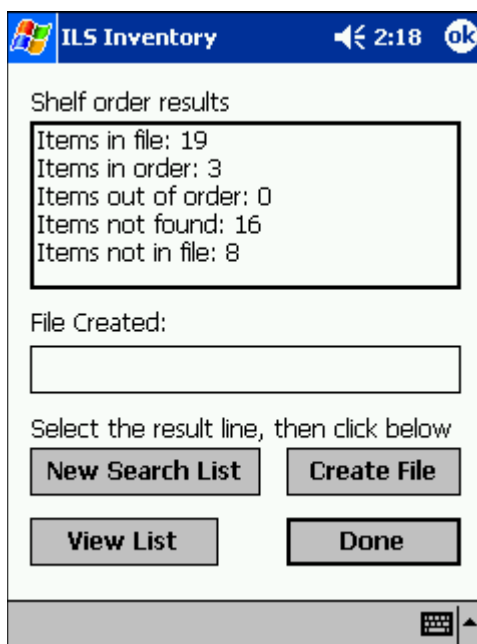
Figure 4.40 Shelf Order Results

Creating a New Search List

1 Tap on the **item of interest** in the *Shelf order results* field. For example, "Items not in file." *Items in file* does not generate a file.

2 Tap **New Search List**.

3 If a result is present, the File Created field automatically populates with the file name of the Shelf Order Search file and the correct extension ".psl". For example, if the "Items not in file" line is selected, a new search could be performed to locate the items that do not belong on the shelf:

File Created:

\My Documents\ShelfOrderSearch.psl

Figure 4.41 PSL file

The next time you dock the Portable Data Terminal, the file created is uploaded to the Intelligent Library Controller.

4 Tap **Done**.

5 You may now import this file to scan for the barcode(s) into Item Search. See for more details.
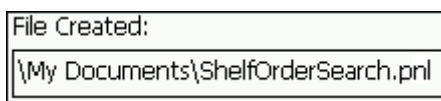
Creating a File from Shelf Order Results

This creates a new Search Order Result file, based on which counter is selected in the Shelf order results window. The file extension used determines the type of file, explained below:

Table 4.2   Search Order Results

Item	Description
Items in file	The original count of the items in the Shelf Order file. (no file is created.)
Items in order	The number of items that were read in shelf order. (.pio)
Items out of order	The number of items that were read that are not in shelf order. (.poo)
Items not found	The number of items in the Shelf Order file that were not found. (.pmi)
Items not in file	The number of items read that were not in the Shelf Order file. (.pnl)

1 Tap on the **item of interest** in the *Shelf order results* field. For example, "Items not in file." *Items in file* does not generate a file.

2 Tap **Create File** and the file is created. The File Created field automatically populates with the file name of the Shelf Order Search file and the correct extension. For example, if the "Items not in file" line is selected, the extension of ".pnl" is used:

File Created:

\My Documents\ShelfOrderSearch.pnl

Figure 4.42 PNL file

3 You may now import this file to scan for the barcode(s) into Item Search. See for more details.

Viewing Shelf Order Results

View List displays the results of a Shelf Order scan. Each item read is displayed in order, with the appropriate status information.
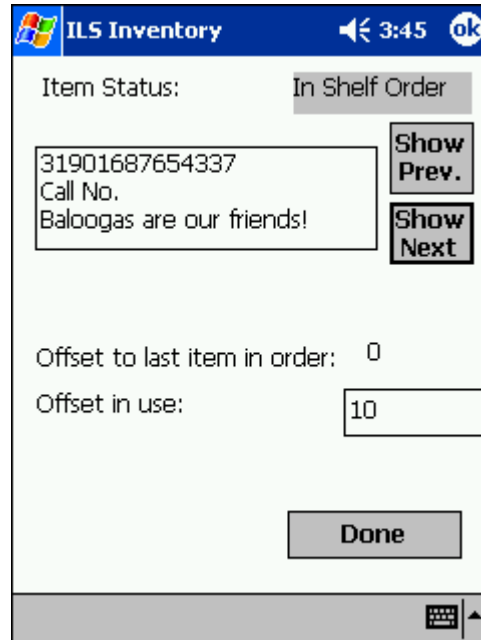
Figure 4.43 Shelf Order View List window

1 Tap on the **item of interest**. For example, "Items in order." The View List window appears.

2 Tap **View List**.

3 Tap **Show Prev.** and **Show Next** to step through the list.

4 Tap **Done** when finished. You are returned to the Shelf Order window.

Saving Custom Search Files

When you create customized search files on the Portable Data Terminal, either types of Item Searches or types of Shelf Order Searches, you can save the customized lists with a file name you input. The same directions apply for all types of search files.

1 From either the Item Search or Shelf Order main windows, tap **Save As**. The Save As window displays.

Figure 4.44 Sample File Save As Window

2 Enter a **descriptive name** into the Name field.

3 Select **a folder**, if desired, to save the file. Your synchronization folder is the default folder (None) already selected.

4 Select the **Type** of file you wish to create.

5 You do not need to alter the location from Main Memory.

6 Tap **OK** to save the file.

To retrieve your file:

1 Tap **Start > File Explorer**.

2 Navigate to My Documents to find your file. Or, dock the Portable Data Terminal to upload your file to the Application Server.

5

ILS REMOTE MONITOR

This chapter describes the ILS Remote Monitor utility and provides information on how to:

- Install web site certificates on the clients (page 5-2)

- Set up and manage user accounts and permissions (page 5-5)

- Start up ILS Remote Monitor (page 5-8)

  • Single server, multi-branch environment

  • Peer-to-peer environment

- Change branch views (page 5-9)

- View the status of different branches (page 5-10)

- View and print reports (page 5-11)

- Upload Portable Inventory Reader inventory files (page 5-12)

ILS Remote Monitor is an optional utility that allows library staff operating in a single server, multi-branch or peer-to-peer environment to view the status of other branches on the network from any computer on that network. In addition, library staff can:

- Monitor exit alarms

- Identify problematic Patron Self-Checkout Stations

- Print pre-run reports

- Transfer files from a remote location to the Application Server

After ILS Remote Monitor is installed and configured on the Application Server, any computer on the local network can use ILS Remote Monitor to access Intelligent Library Controller information.

Installing Web Site Certificate on a Client Computer

To establish a secure channel between the client computer and the Application Server, you must install web site certificates on both the server and the client. You must renew the server certificate yearly; you must install the client certificate only once, on each computer on which you want to use ILS Remote Monitor.

Checkpoint Field Service personnel install the server certificates for you. You install the client certificates.

You must install the **certificate.cer** client certificate onto each computer on which you want to use ILS Remote Monitor. This establishes a secure channel between the client computer and the Application Server.

To install the client certificate:

1 Log on as a user with administrative rights to the client's computer.

2 Copy the **checkpoint.cer** file from the Application Server at **e:\rfid\utilities\ Checkpoint Systems\Intelligent Library Remote Monitor** to the client computer's desktop.

3 Navigate to the desktop checkpoint.cer and double-click the file. The Certificate window displays.

Figure 5.1 Certificate window

4 Click **Install Certificate** (Figure 5.1). The Certificate Import Wizard displays.

5 Click **Next**.

6 In the Certificate Store window, select **Automatically select the certificate store based on the type of certificate**. Click **Next**.

7 When the certificate installation is completed, click **Finish**.

8 Click **Yes** to add the certificate to the Root Store.

9 Click **OK** to close all windows.

10 Repeat steps 1 through 8 on each client computer on which you want to use ILS Remote Monitor.

Verifying Successful Certificate Installation

Use the following procedure to check that the certificate is correctly installed:

1 Open a browser window.

2 Select **Tools > Internet Options...**.

Figure 5.2 Internet Options window

3 Select the **Content** tab (Figure 5.2).

4 Click **Publishers...**.

The Certificates window displays:
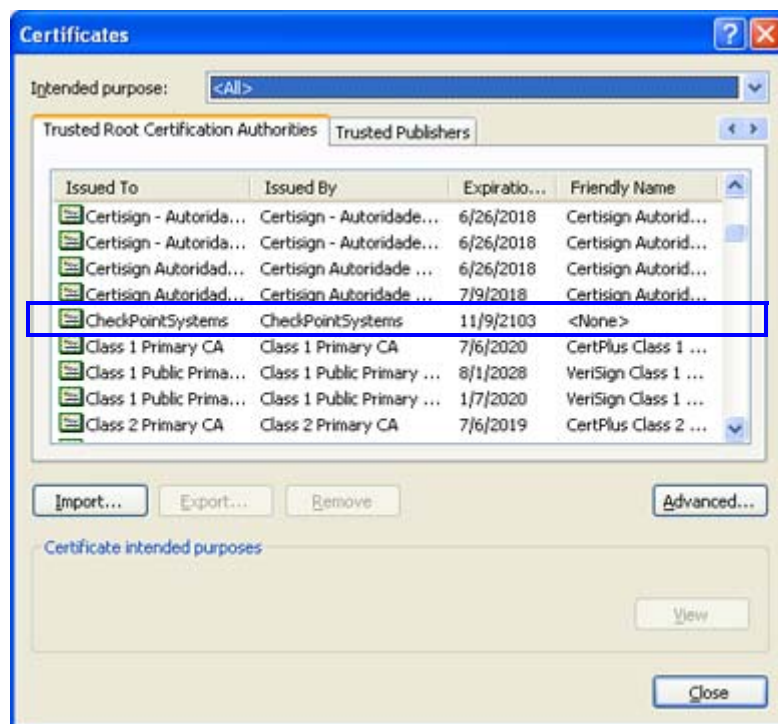
Figure 5.3 Certificates window

5 Select the **Trusted Root Certification Authorities** tab (Figure 5.3). Ensure that **CheckPointSystems** is included in the list.

6 If not, see "Installing Web Site Certificate on a Client Computer" on page 5-2.

7 Close all windows.

Setting Hyperlink on Client's Computer

This procedure indicates how to create a bookmark hyperlink on a client's computer, so that the user can easily access ILS Remote Monitor.

1 On the client's computer, launch Internet Explorer.

2 In the URL bar, type **https://<machine name of server>/ils/** and press **Enter**. For example, https://rfidserver/ils/.

3 Once the home page of ILS Remote Monitor loads, click **Favorites > Add to Favorites...**.

4 Click **OK** to accept the default Name. The bookmark is now saved and accessible with the Favorites menu.

Setting Up and Managing User Accounts

The **Remote User Manager** utility lets you create and manage accounts that provide access to the ILS Remote Monitor. The utility also lets you unlock accounts that have been disabled as a result of incorrect username-password combinations.

Table 5.1 lists the access privileges you can assign to each user:

Table 5.1   Remote User Manager Access Privileges

Access Privilege	Description
Remote Console	View status of any or all branches.
Remote Report	Access all ILS Remote Monitor functions: view status, view and print reports, upload inventory files.
Administrator	Access all ILS Remote Monitor functions: view status, view and print reports, upload inventory files. Access Application Server operations.
Customer Service	Access all ILS Remote Monitor functions: view status, view and print reports, upload inventory files. Access Application Server operations.

Users assigned the Remote Console access privilege see only the features they are empowered to use. Users assigned Remote Report, Administrator, or Customer Service access privileges see all ILS Remote Monitor features.

Adding a User Account

Take the following steps to add a user account to provide access to the ILS Remote Monitor:

1 In the Intelligent Library System Control window, select **Maintenance > Remote User Manager** (Figure 5.4).
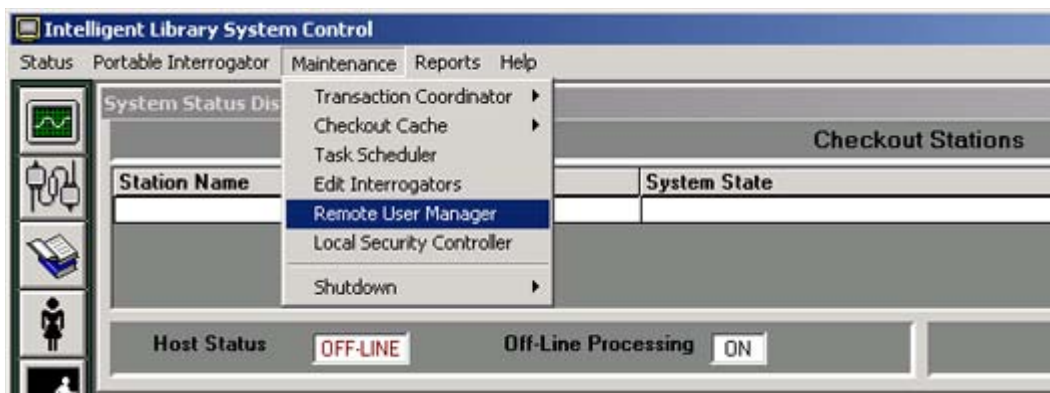
Figure 5.4 Select Remote User Manager

2 Log on as **ILSRemote**, password **remote123**.

3 Click **Add** (Figure 5.5).

4 Type a user name and password.
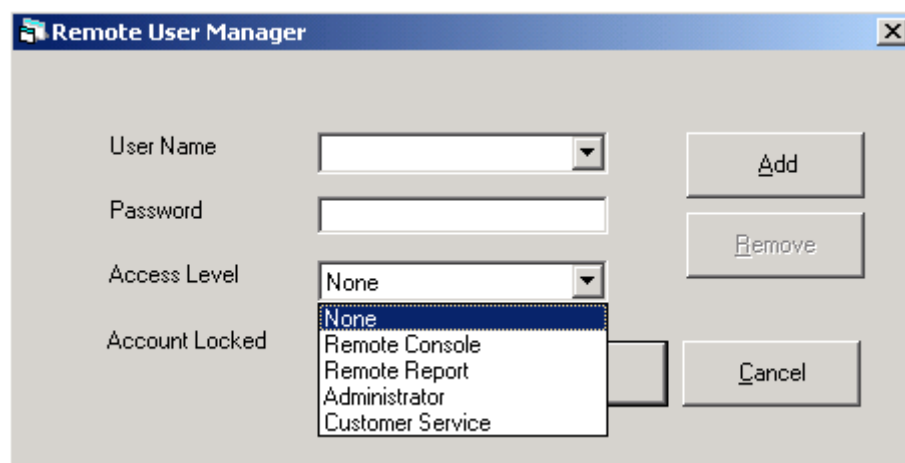
Figure 5.5 Remote User Manager Access Levels

Select the Access Level privilege for the user (Figure 5.5).

Table 5.2   Access Level

Access Level	Permission description	Login
Remote Console	View-only, cannot upload files, view reports	User: ILSRemote Password: remote123
Remote Report	Full Control, can upload files	User: ILSReport Password: report123
Administrator (Library IT)	Full Control, can upload files	User: ils Password: maint
Customer Service (Checkpoint Field Service)	Full Control, can upload files	User: xxxxx Password: xxxxx

Use only the first two selections for this setting.

5   Click **Save**.

Modifying a User Account

Take the following steps to modify an existing ILS Remote Monitor account:

1   In the Intelligent Library System Control window, select **Maintenance > Remote User Manager**.

2   Log on as Customer Service, user name of **ils** and password of **maint**.

3   Select the user name to be modified.

4   Make the necessary changes.

5   Click **Save**.

Removing a User Account

Perform the following steps to delete an existing ILS Remote Monitor account:

1 In the Intelligent Library System Control window, select **Maintenance > Remote User Manager**.

2 Log on as Customer Service, user name of **ils** and password of **maint**.
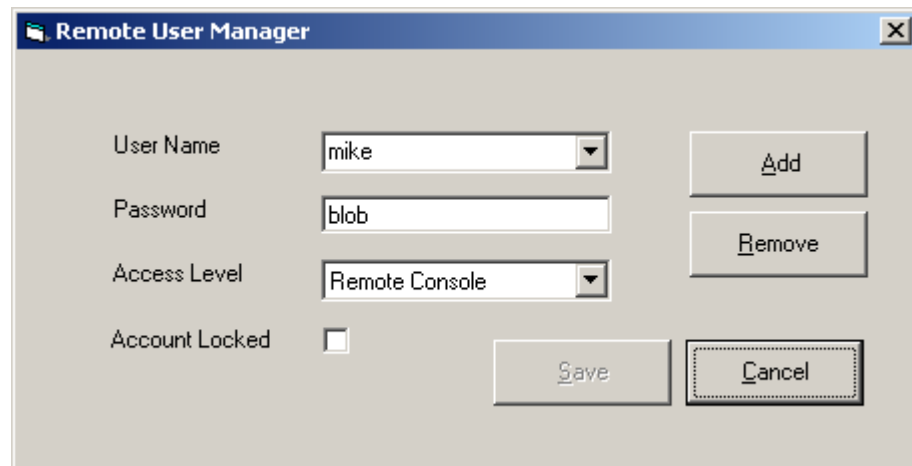
Figure 5.6 Remove User Account

3 Select the user name to be deleted (Figure 5.6).

4 Click **Remove**.

5 At the prompt, click **Yes**.

Unlocking a Locked Account

If an ILS Remote Monitor user enters an incorrect user name and password combination three times, that user is prevented from logging on again until the account is unlocked in the Remote User Manager.

Take the following steps to unlock a disabled user account:

1 In the Intelligent Library System Control window, select **Maintenance > Remote User Manager**.

2 Log on as Customer Service, user name of **ils** and password of **maint**.

3 Select the user name.

4 Deselect the **Account Locked** check box.

5 Click **Save**.

Using ILS Remote Monitor

With the exception of starting up ILS Remote Monitor, the utility functions the same way in both single server, multi-branch and peer-to-peer environments. To start up ILS Remote Monitor, follow the instructions appropriate to your site's environment.

Launching ILS Remote Monitor in a Single Server, Multi-Branch Environment

To launch ILS Remote Monitor in a single server, multi-branch environment:

1 Open a browser window.

2 Type **http://<machine name of server>/ils** in the address bar and press **Enter**. Optionally, use the saved bookmark in your Favorites menu.

3 Enter your ILS Remote Monitor user name and password. The ILS Remote Monitor utility displays (Figure 5.7).
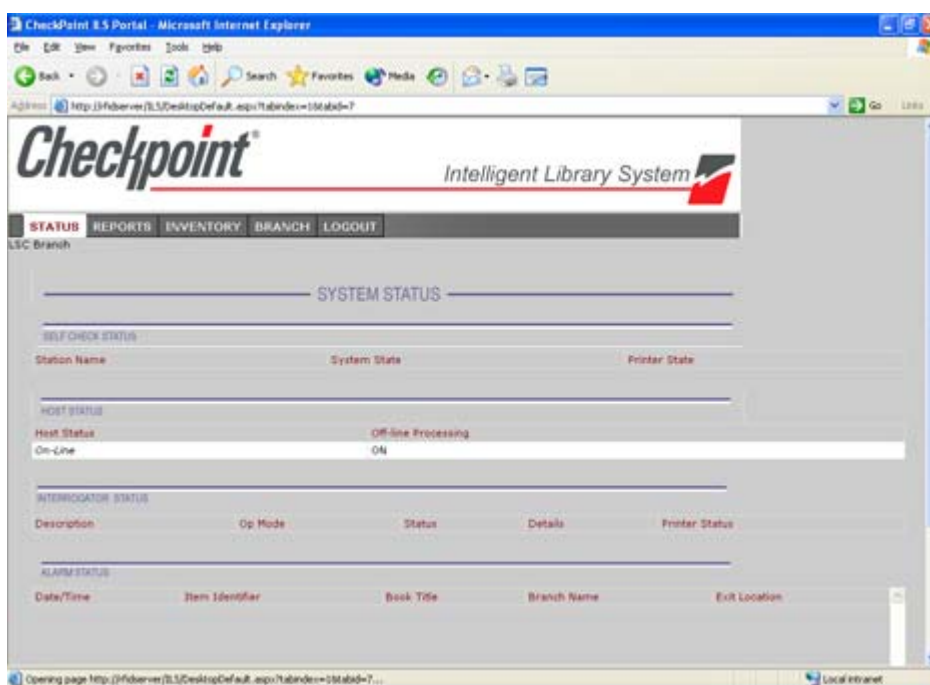
Figure 5.7 ILS Remote Monitor main window

Using ILS Remote Monitor in a Peer-to-Peer Environment

ILS Remote Monitor enables you to determine the status of different servers in a peer-to-peer environment. Depending upon the URL you enter, you can different view peer servers in your network.

- • To view information for your own branch, enter your branch's server name of the peer server in the browser's address bar (example: https://rfidpeer1/ils).

- • To view information for the other branches in the peer-to-peer environment, enter the server name of the peer servers in the browser window's address bar (example: https://rfidpeer2/ils).

1 Open a browser window.

2 To see information for your local branch, type **https://<machine name of server>/ils** in the address field, where *machine name* is the name of your Peer server. To see information for another branch in the peer-to-peer environment, substitute that branch's peer server name in the address bar. For example: **https://rfidpeer1/ils/**.

3 Press **Enter**.

4 Enter your ILS Remote Monitor user name and password. The ILS Remote Monitor utility displays (Figure 5.7).

Changing Branch Views

To view information for a different branch:

1 Click the **Branch** tab.
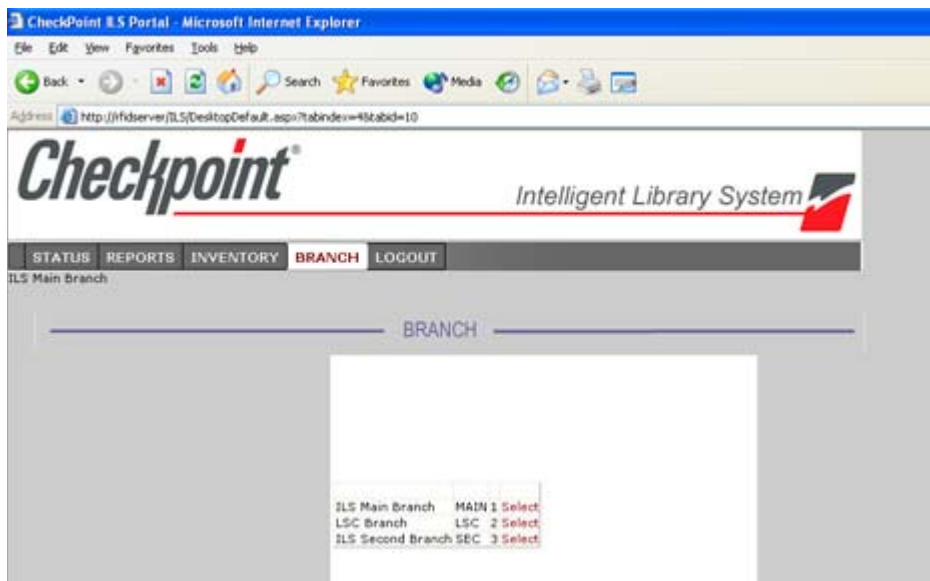
Figure 5.8 Select Branch

2 Click **Select** beside the branch whose information you want to view (Figure 5.8).

Viewing Status

The Status page lists the information of the currently selected Branch and all the components connected to the server. The following components's health (status) can be monitored:

• Self-Checkout Stations

• Library Management System connection

• Interrogators

• Alarms

▶ To view the status of a branch, click on the **Status** tab.
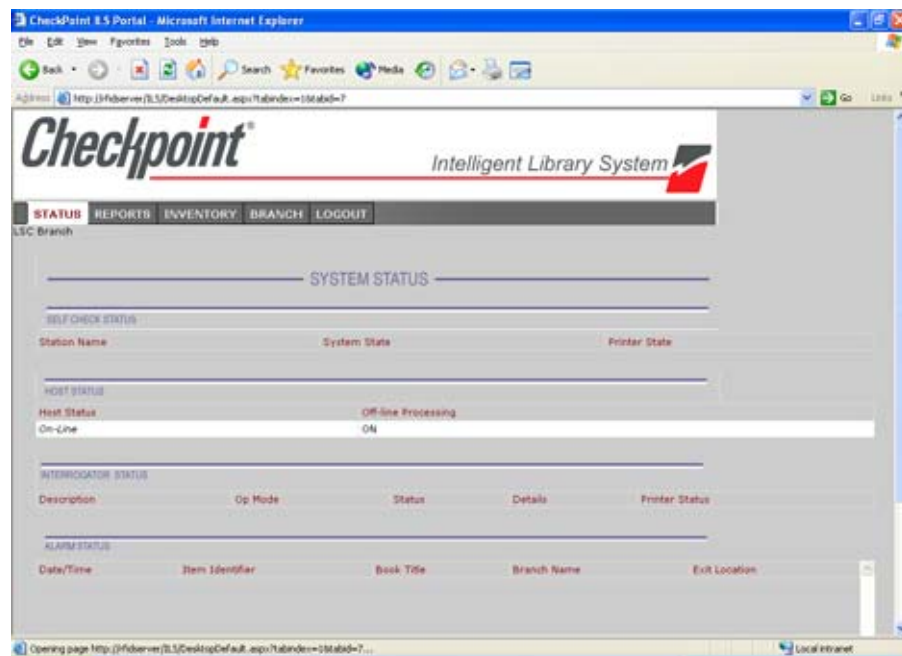
This is the default view. To change to a different branch, see "Changing Branch Views" on page 5-9.

Viewing and Printing Reports

Reports cannot be generated by using ILS Remote Monitor to log in to the Application Server. You can only generate reports from the Application Server, and then once generated, view those reports with ILS Remote Monitor.

To view pre-run reports for a selected branch:

1 Click the **Reports** tab.
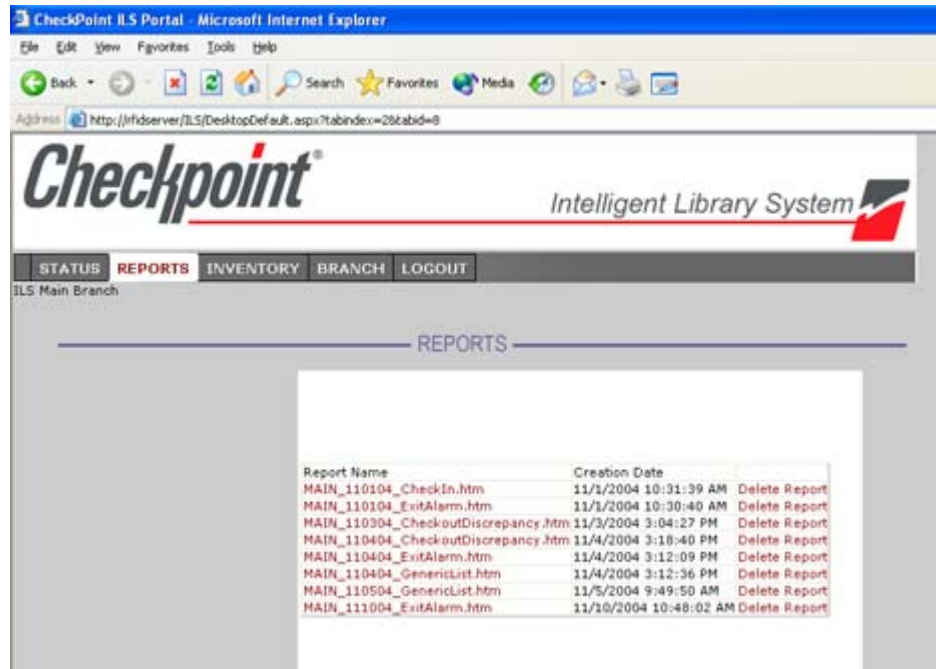
Figure 5.9 View Reports

2 To view the report, click the desired report name (Figure 5.9). When viewing a report, you can return to the list of reports by clicking the **Reports** tab.

3 To print a report, use the browser's **Print** feature. To see all the data, print reports in Landscape orientation. (In Internet Explorer, select **File > Page Setup...** and select **Landscape** orientation.)

4 To delete a report, click **Delete Report** beside the report name.

Uploading Portable Inventory Reader inventory files

To upload a Portable Inventory Reader inventory file to the Application Server:

1   Click the **Inventory** tab.
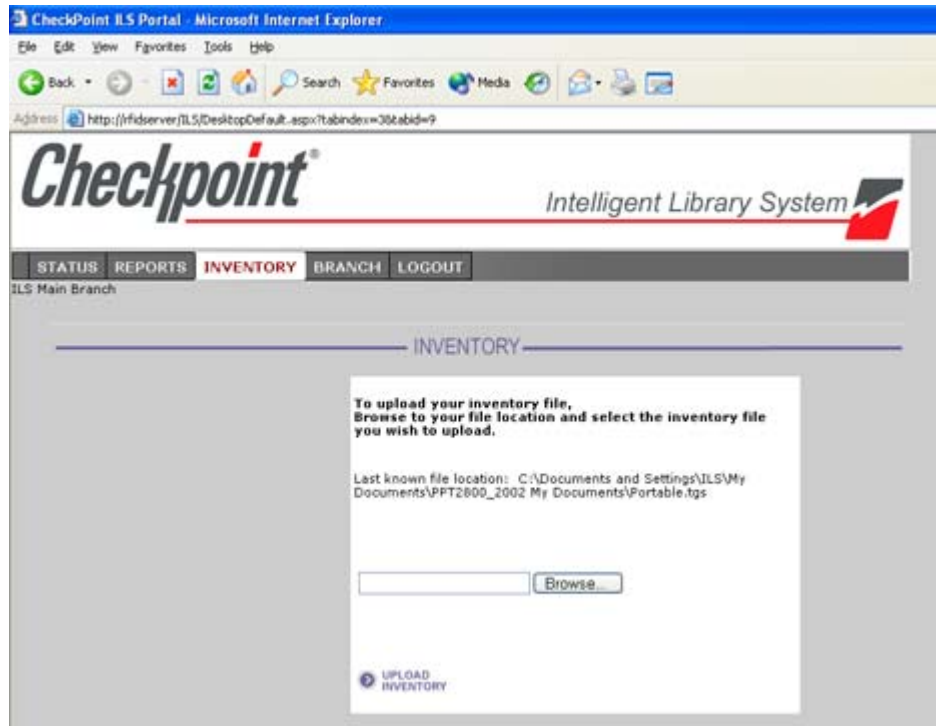
Figure 5.10 Upload Inventory

2   Enter the inventory file name, or click **Browse** to navigate to the inventory file (Figure 5.10).

3   Click **Upload Inventory**.

Logging out

To log out of ILS Remote Monitor:

1   Click the **Logout** tab. You will be logged out and have to log back in to use the utility.

2   See "Using ILS Remote Monitor" on page 5-8 for instructions on logging in to ILS Remote Monitor.

6

EXCEPTION TICKET PRINTER

This chapter explains the function of the exception ticket printer, and provides instructions for using the printer. This feature is optional; your site may not use the exception ticket printer.

The chapter covers the following topics:

Introduction

The exception ticket printer is usually located near the library's book drop, and its sole function is to print a receipt when incoming library material has been placed "on hold" by the Library Management System. This receipt can then be placed in the library material by library staff, to ensure that the material is directed to the appropriate location, instead of being returned to circulation.

One exception ticket printer can service multiple interrogators. This means that a receipt might print at the exception ticket printer near Drop Box A for a book that is returned at Drop Box B. As a result, you may have to search more than one drop box to find the library material that matches the receipt.

Printer Layout

Figure 6.1 and Figure 6.2 show the layout of the printer and its back panel.
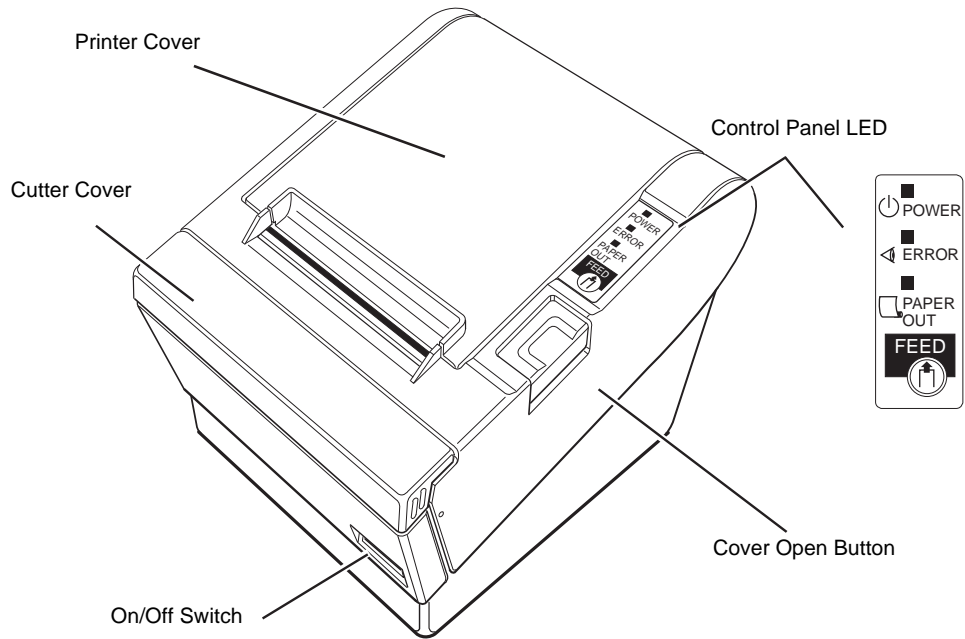
Figure 6.1 Top of Printer
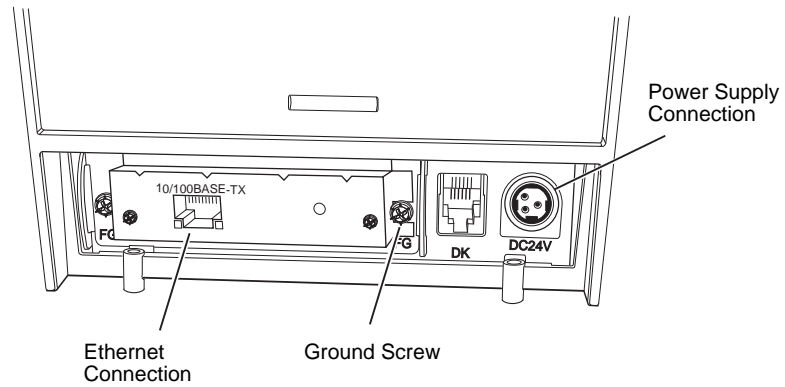
Figure 6.2 Printer Back Panel

Control Panel

Power LED: The POWER light is on when the printer is on.

Error LED: Indicates an error.

Paper Out LED: On indicates a paper near end or out. Flashing indicates standby.

Feed button: This button feeds paper or starts a self-test.

Using the Exception Ticket Printer

If the Library Management System has placed a "hold" on a particular book (or other piece of library material), the check-in of that material triggers the exception ticket printer to print a receipt.

1 Periodically check the exception ticket printer for receipts.

2 Retrieve the receipts and place them in the designated library materials that have been recently checked in. If an exception ticket printer is servicing multiple interrogators, you may have to search more than one drop box to find the library material that matches the receipt.

3 Follow your site's procedures for handling "on hold" materials.

Setting the Printer's Cut Type

Checkpoint Systems recommends that you set up the printer to do a partial cut of the paper. This produces a string of receipts, which can be easily separated, rather than individual receipts, which might fall and be lost.

1 On the computer you used to set up the printer, click **Start > Settings > Printers** and right-mouse click the Epson printer.

2 Select **Printing Preferences**.

3 Select the **Paper/Quality** tab.
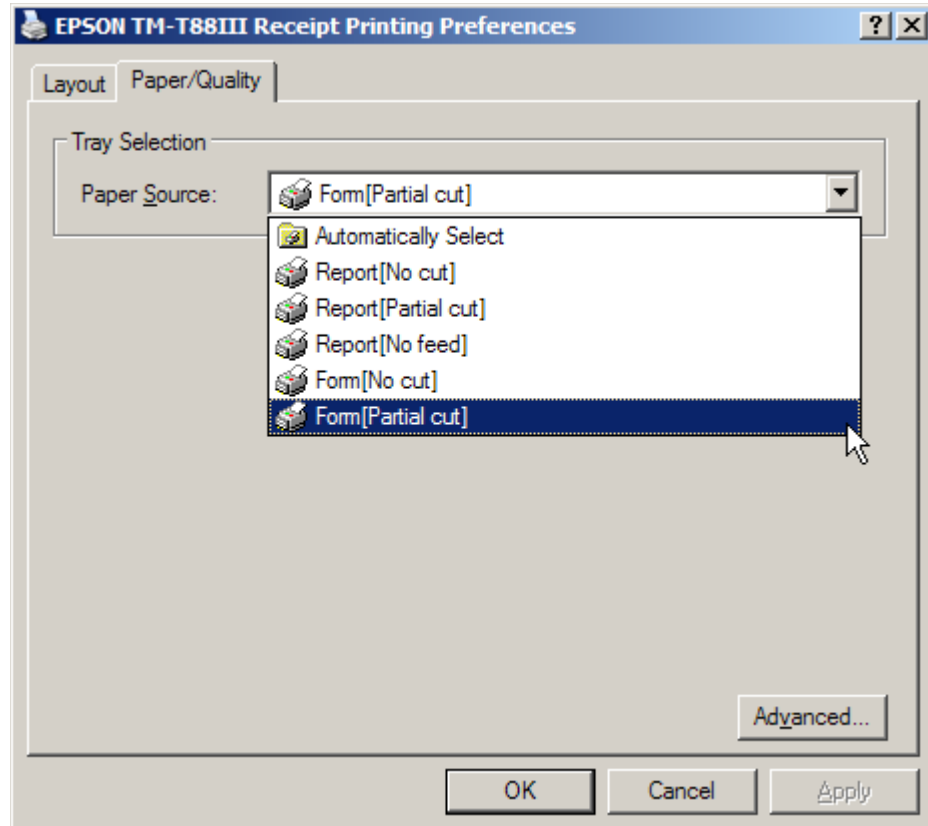
Figure 6.3 Partial Cut Select

4 From the Paper Source drop-down menu, select **Form[Partial cut]**. This sets the printer to only partially cut the receipt.

5 Click **OK** to save your selection and close the window.

Inserting Paper

Take the following steps to add paper to the exception ticket printer:

1 Be sure that the printer is not receiving data. Press the **Cover Open** button to open the cover.

2 If present, remove any used paper roll core. Insert the paper roll in the correct direction, as shown in Figure 6.4.
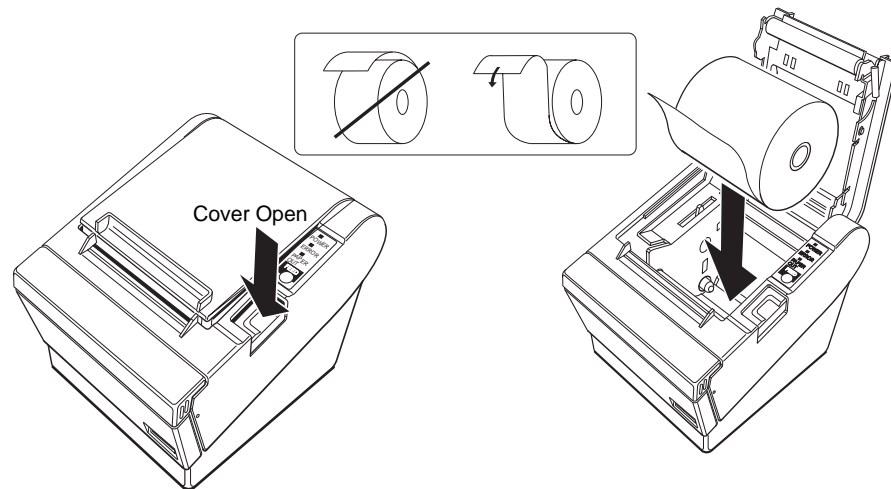
Figure 6.4 Insert Paper

3 Pull out a small amount of paper, as shown in Figure 6.5. Then close the cover and tear off the extra paper by pulling it toward the front of the printer.
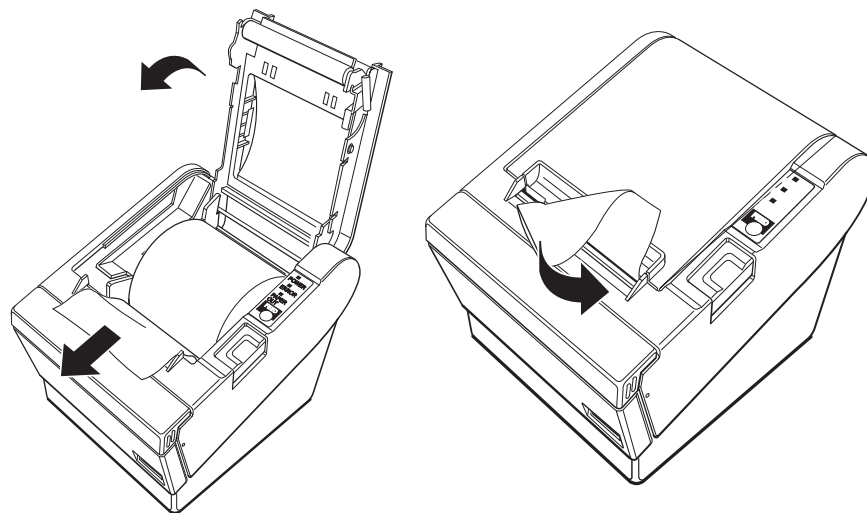
Figure 6.5 Tear Paper

Running a Self-Test

Follow these steps to run a self-test on the paper roll:

1   Be sure that the printer is off and that the printer cover is closed properly.

2   Hold down the **Feed** button and turn on the printer using the switch on the front of the printer. This may take some time, so continue holding the Feed button until it prints.

3   The self-test prints the printer settings and then prints the following:

    If you want to continue SELF-TEST printing,

    Please press the PAPER FEED button.

    Cuts the paper, and pauses. (The Power Out light flashes.)

4   Press the **Feed** button to continue printing. The printer prints a pattern using the built-in character set.

5   The self-test automatically ends and cuts the paper after printing "*** completed ***." The printer is ready to receive data as soon as it completes the self-test.

✎ Note: To pause the self-test manually, press the Feed button. Press Feed again to continue the self-test.

Installing the Cover

There are two covers that can be used to protect the printer from unnecessary interaction: a power switch cover and a connector cover. Using these covers are optional, depending upon the needs of the library.

Installing a Power Switch Cover

⚠ Warning   If an accident occurs with the power switch cover attached, unplug the power cord immediately. Continued use may cause fire or shock.

The enclosed power switch cover ensures that the power switch is not pressed accidentally. To use this cover:

1   Insert the lower end of the cover into the slot around the switch.

2   Rotate the cover upwards until it snaps into place.

3   To remove the cover, use a flat bladed screwdriver to lever the cover off.
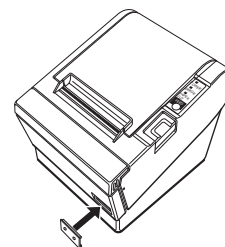
Installing a Connector Cover

The connector cover protects your cables. To attach it:

1   First, connect all the cables. The connector cover has three possible cable exits: on the right, left, and back. Remove the tab for the exit you want to use by breaking it off with your fingers.

✎ Note: Once you remove a tab, you cannot replace it.

2   After removing the tab, also remove any protruding plastic, so that the edge is smooth and does not damage the cables.

3 Position the two hooks on the connector cover so that they hook the printer case.

4 Rotate the connector cover into the printer until it clicks into place.
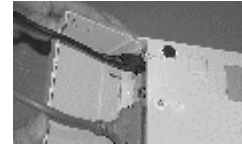
Attaching cover

To remove the connector cover:
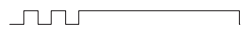
1 Turn the printer over, insert a flathead screwdriver under one hook, and pry up the hook while lifting the connector cover. See the illustration on the right below.

2 Repeat this step for the other side and remove the cover.
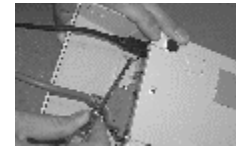
Removing cover

Error Codes

The Control Panel LED displays the following patterns when certain error conditions are met.

LED Pattern	Solution
Autocutter error	Check for paper jam in the autocutter. If problem continues, contact Checkpoint field service.
Cover open error	Close cover.
Memory or gate array error	Contact Checkpoint field service.
High voltage error	Replace power supply unit. If problem continues, contact Checkpoint field service.
Low voltage error	Replace power supply unit. If problem continues, contact Checkpoint field service.
CPU execution error	Contact Checkpoint field service.
Internal circuit error	Contact Checkpoint field service.
High head temperature error	If you exceed the printer duty cycle, the head overheats. When it cools, the error clears. If this error occurs and you have not been printing for very long, check that the ambient temperature is within "Specifications" on page 6-9.

Troubleshooting

The following table lists solutions to issues that might arise.

Condition	Solution
No lights on the control panel	Check the power supply cable connections and the power outlet.
ERROR light on (not flashing) with no printing	• If PAPER OUT is on, the paper roll is not installed or is near the end. • If PAPER OUT is off, the printer cover is not closed properly.
ERROR light flashing with no printing (and no paper jam)	Printing stops if the head overheats and resumes when it cools. Turn the printer off, and after 10 seconds, back on.

Removing Jammed Paper

⚠ Caution Do not touch the print head because it can be very hot after printing.

Take the following steps to remove jammed paper from the printer:

1 Turn the printer off and press the **Cover Open** button.

2 Remove jammed paper, reinstall the roll, and close the cover.

Removing an Autocutter Jam

Follow these steps to remove paper jammed in the autocutter:

1 If paper is caught in the cutter and you cannot open the printer cover, open the cutter cover as shown on the left in Figure 6.6.

2 Turn the knob until you see a triangle in the opening, as shown on the right in Figure 6.6. This returns the cutter blade to the normal position. There is a label near the cutter to assist you.
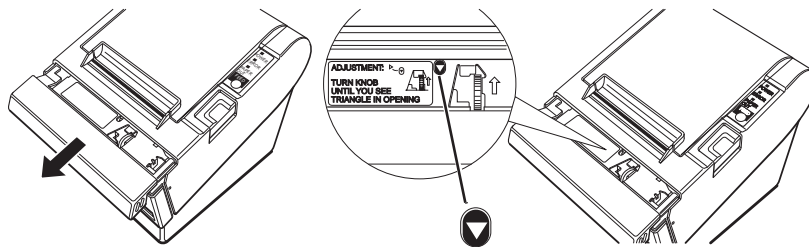
Figure 6.6 Removing an Autocutter Jam

3 Close the cutter cover.

4 Open the printer cover and remove the jammed paper.

Cleaning the Print Head

⚠️ Caution After printing, the print head can be very hot. Be careful not to touch it, and to let it cool before you clean it. Do not damage the print head by touching it with your fingers or any hard object.

Take the following steps to clean the print head:

1 Turn off the printer, open the paper roll cover, and clean the thermal elements of the print head with a cotton swab moistened with an alcohol solvent (ethanol, methanol, or IPA).

2 Checkpoint Systems recommends that you clean the thermal head periodically (generally every 3 months) to maintain receipt print quality.

Specifications

The following lists specifications regarding printing specifications.

Table 6.1 Printing Specifications

Item	Description
Printing Methods	Thermal line printing
Dot density	180 dpi × 180 dpi (dpi = dots per inch {25.4 mm})
Print width	2.83" {72 mm}, 512 dot positions
Characters per line	Font A: 42; font B: 56 (default)
Character structure	Font A: 12 × 24 (including 2-dot spacing)
	Font B: 9 × 17 (including 2-dot spacing)
Character spacing	0.01" {0.28 mm} = 2 dots, default
Print direction	Unidirectional with friction feed
Print speed	High-speed mode
	• 5.9"/sec. {150 mm/sec.} maximum
	• 47.2 lps maximum at 1/8" feed
	• 35.5 lps maximum at 1/6" feed (at 24 V, 82.4°F {28°C}, density level 1)
	Low-power-consumption mode
	• Approximately 16.5 lps at 1/6" feed
	• Approximately 2.76"/s {70 mm/s}
	Ladder bar code
	• 1.7"/s {42 mm/s}
Paper-feed speed	5.9"/s {150 mm/s} continuous feeding
Character sets	• alphanumeric: 95 characters
	• international: 37 characters
	• extended graphics: 128 characters × 8 pages (including a space page)

Table 6.2 Environmental Conditions

Item	Description
Temperature range	• Operating 41 to 113°F {5 to 45°C}
	• Storage 14 to 122°F {−10 to 50°C}
Humidity range	• Operating 10 to 90% RH
	• Storage 10 to 90% RH

Notes

CHECKVIEW

This chapter describes the CheckVIEW utility and provides instructions for:

- Using CheckVIEW (page 7-3)

- Reinstalling missing files (page 7-6)

- Uninstalling CheckVIEW (page 7-6)

- Using CheckVIEW to shut down a monitored Self-Checkout Station (page 7-6)

- Troubleshooting information ("CheckVIEW Troubleshooting" on page 12-9).

The CheckVIEW utility enables library staff to remotely view up to four different Self-Checkout Station at one time. From any computer on the library's network, staff members are able to see exactly what the patrons see as they use the Self-Checkout Station to checkout materials. This enables library staff to manage issues such as:

- Patrons who are having difficulty using the touch screen

- Stations that may have hardware or system problems

- Viewing the patrons' checkout list to reconcile any discrepancies concerning availability

Staff members use their mouse and keyboard to assist patrons by assuming control of a specific Self-Checkout Station window to step a patron through a check out procedure.

There are two modes a library staff member can use to aid a patron, Monitor mode and Host mode. Monitor mode allows the staff member to watch up to four Self-Checkout Stations. Once a problem is identified, Host mode enables you to interact directly with a particular Self-Checkout Station and guide the patron.

The VNC server application must be installed on every Self-Checkout Station that is to be monitored by the library staff's computer. TCP/IP network connectivity to the Self-Checkout Stations is required for monitoring Self-Checkout Stations.
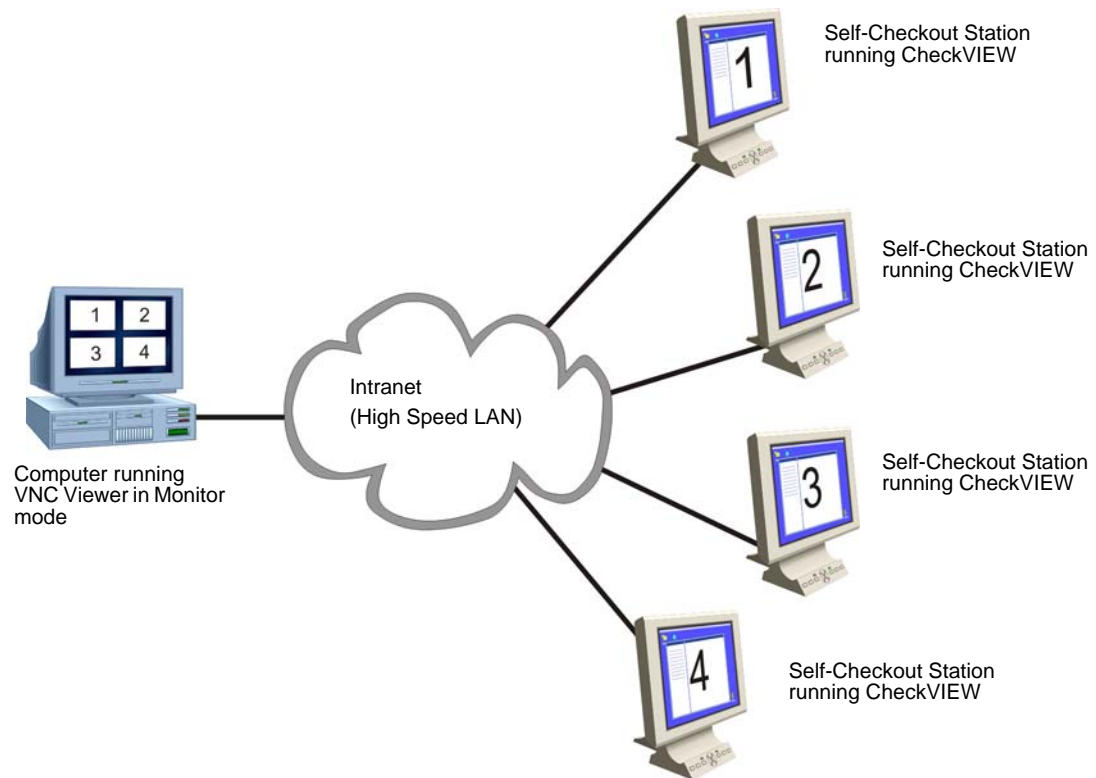
Figure 7.1 CheckVIEW Network Diagram

Staff Computer Requirements

The following are the minimum requirements for using CheckVIEW:

- Windows 2000 or XP
- 800 MHz Pentium III or equivalent processor
- 256 MB RAM
- 17 Inch Monitor
- Screen resolution of 1024x768
- Network Requirement of 100 MB Ethernet

Using CheckVIEW in Monitor Mode

To launch the CheckVIEW application, select **Start** > **Programs > Checkpoint Systems > CheckVIEW Monitor** from the library staff's computer. The default main page appears in Monitor mode with up to four Self-Checkout Stations displayed.

Name of Self-Checkout

Monitoring mode showing three active Self-Checkout displays.
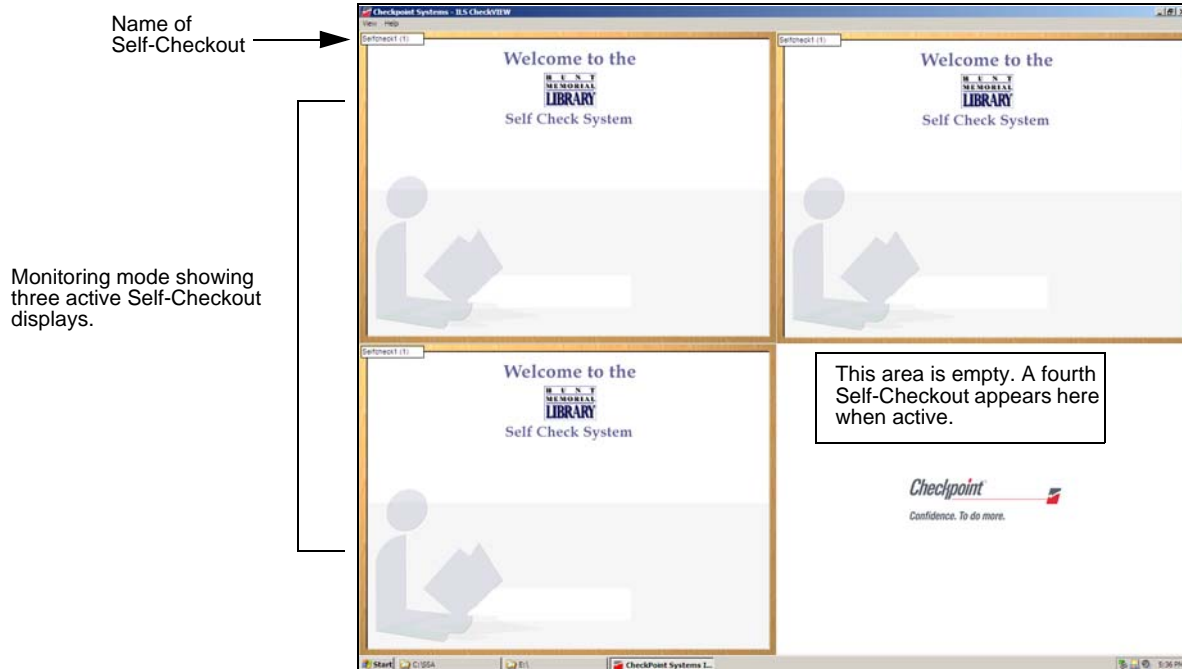
Figure 7.2 Monitor mode from CheckVIEW

You can easily determine the status of up to four Self-Checkout Stations by looking at the CheckVIEW window. See below for instructions on how to assist a Self-Checkout Station.

Using CheckVIEW in Host Mode

To gain access to a specific Self-Checkout Station to assist a patron:

1 Select **View** from the menu.

2 Select one of the **Display (1-4)** options. You can also press **Ctrl+1-4** using your keyboard to access a Self-Checkout Station.

Access to the window is shared between the staff member and the patron. The Self-Checkout Station window reacts to the most recent command by either the patron or the staff member.

Assist mode. The CheckVIEW computer is actively involved with the Self-Checkout Station.
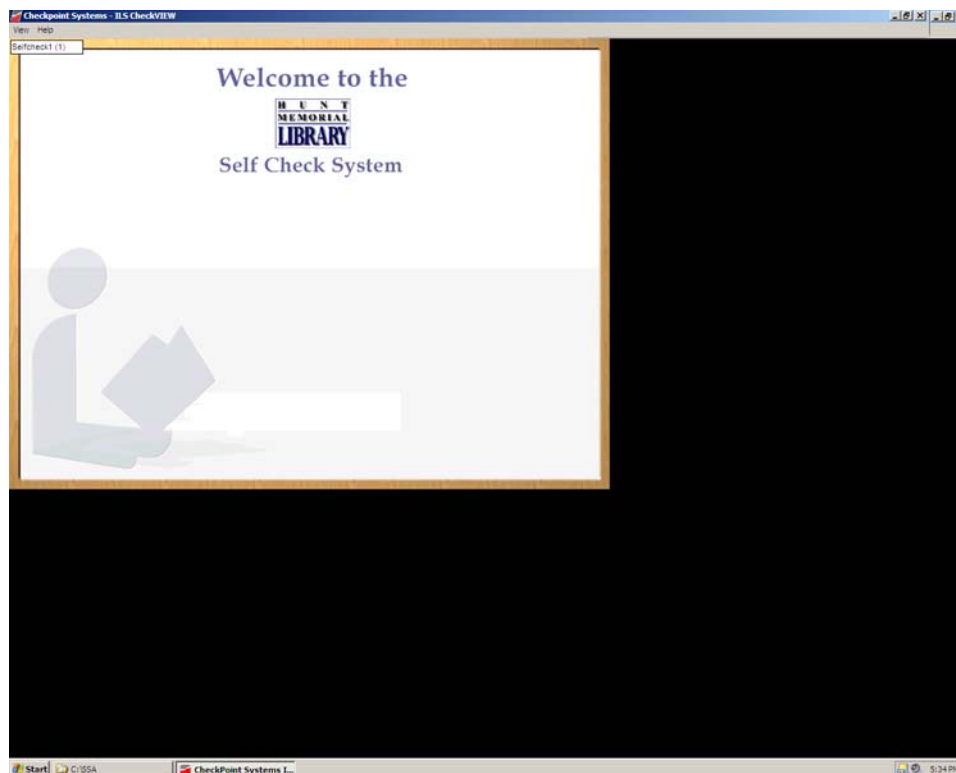
Figure 7.3 Assist mode as seen from CheckVIEW

3 Assist the patron as necessary with your keyboard and mouse.

4 To return CheckVIEW to Monitor mode, select **View > All** or press **Ctrl+A**.

5 To close the application, click the **X** in the upper right hand corner of the window or select **View > Close**.

Adding/Removing Self-Checkout Stations to CheckVIEW

A settings.xml file is configured to add or remove the Self-Checkout Stations.

1 Launch Windows Explorer and navigate to **C:\Program Files\Checkpoint Systems\CheckVIEW Monitor**.

2 Open the **Settings.xml** file with Notepad.

   a Right-mouse click **Settings.xml**.

   b Select **Open With...** and choose **Notepad** from the list of programs.

3 To add a Self-Checkout Station so that it displays in CheckVIEW, enter **1** where it states *Enabled*, next to Display Index. See Figure 7.4, "Self-Checkout Station Monitoring Enabled."

```
- <Displays>
  - <Display Index="0" Enabled="1">
      <IPAddress>100.100.100.201</IPAddress>
      <Name>Selfcheck 1</Name>
    - <Password>
        <![CDATA[ %OsMSduy)x  ]]>
      </Password>
      <Port>15900</Port>
    </Display>
```

Figure 7.4 Self-Checkout Station Monitoring Enabled

✎ Note: Enable only those Self-Checkout Station you are going to actively view, otherwise the monitoring system slows down.

4 To remove a Self-Checkout Station from CheckVIEW, type a **0**.

```
- <Display Index="1" Enabled="0">
    <IPAddress>100.100.100.202</IPAddress>
    <Name>Selfcheck 2</Name>
```

Figure 7.5 Self-Checkout Station Monitoring Disabled

5 Save your changes and close the Settings.xml file.

Reinstalling Missing Files

Use the **Repair** function to reinstall missing or corrupt files, registry keys, and shortcuts.

1 Insert the **CheckVIEW CD-ROM** into the computer's CD-ROM drive. If CheckVIEW is already installed, the Application Maintenance window displays.
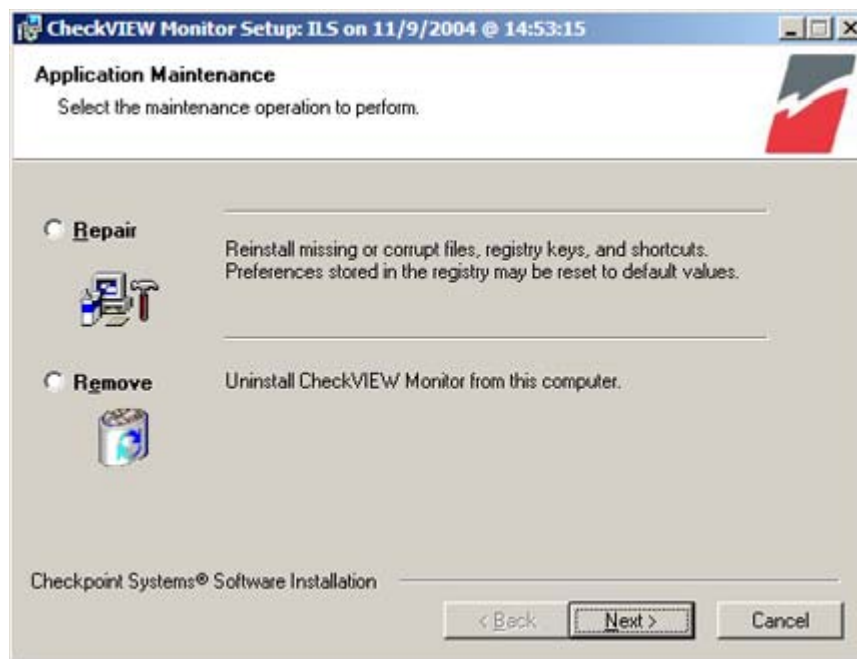
Figure 7.6 Application Maintenance window

2 Click the **Repair** option button. Click **Next**.

Uninstalling CheckVIEW

Use the **Remove** function to uninstall CheckVIEW.

1 Insert the **CheckVIEW CD-ROM** into the computer's CD-ROM drive. If CheckVIEW is already installed, the Application Maintenance window displays (Figure 7.6).

2 Click the **Remove** option button. Click **Next>**.

Using CheckVIEW to Shut Down a Self-Checkout Station

The following procedure shuts down a Self-Checkout Station using CheckVIEW:

1 Launch CheckVIEW on the library staff's computer by clicking **Start** > **Programs > Checkpoint Systems > CheckVIEW Monitor** from the library staff's computer.

2 Access the specific Self-Checkout Station by selecting **View** and then select one of the **Display (1-4)** options for the desired Self-Checkout Station.

3 On the keyboard, press **CTRL** + **SHIFT** + **DEL**.

4 Click **Shut down**. The Self-Checkout Station enters a shut down sequence until it states that Self-Checkout Station can be turned off.
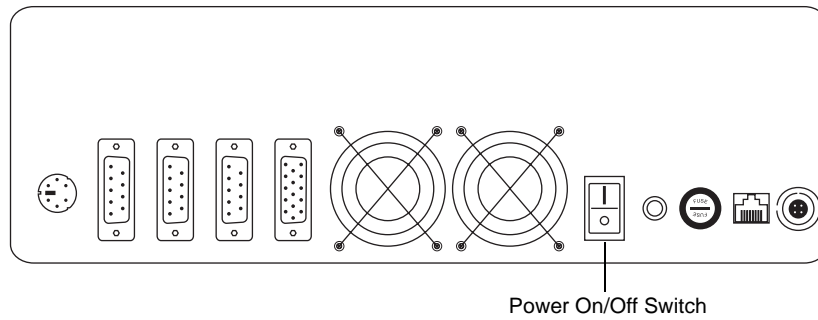
Power On/Off Switch

Figure 7.7 Self-Checkout Station On/Off Switch

5 Go to the Self-Checkout Station and turn off the power switch.

Note: See "Powering On the Self-Checkout Station" on page 3-10 for instructions about how to turn on the Self-Checkout Station.

Notes

AFFIXING TAGS

This chapter describes the different types of RFID tags and provides instructions for placing the appropriate circuit on books, CDs, audio material, and kit material.

For information on the Tag Programming Station, see "Using Tag Programming Station" on page 9-1.

Types of tags

Checkpoint Systems provides three types of tag. Choose the appropriate circuit for each type of media.

Standard tag: Can be used on books, CDs, DVDs, audio material, and tagging kits.
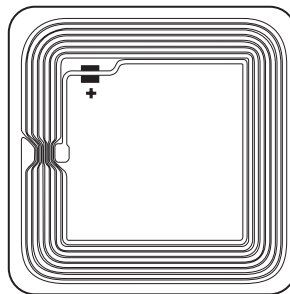
Figure 8.1 Standard tag

Video Tag: Can be used on video cassettes.

Figure 8.2 Video tag

- **CD-DVD Content tag:** Can be used on CDs and DVDs (aka hub tag).
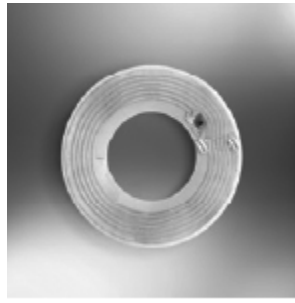
Figure 8.3 CD-DVD Content tag

Applying Tags to Books

The following procedure outlines a method for staggering the placement of tags in treating printed materials. This procedure is recommended to obtain the highest level of performance with ILS Open Plus products.

The procedure requires materials to be treated in shelf order, which maintains tag staggering for the materials when placed on the shelves. Tag staggering helps to ensure that the materials can be reliably scanned during inventory operations and increases the number of items that can be processed by staff station readers, patron self-checkout stations, and security gates.

The diagram below shows the pattern layout on a single book. In practice, only one tag is placed in a book, but each treatment of a book is a progression of the pattern, which repeats.

In some cases, the book height will not support the placement of a tag at positions 2 or 3. In this scenario, the next logical placement in the progression of the pattern is used. For example, if the height of the printed material only allows 2 positions, then repeat the 2 position pattern until the next printed material allows all positions.

Use only **Standard tags** on books.

1.2 cm
(1/2")

Position 3

1.2 cm (1/2")

Position 2

14.6 cm
(5 3/4")

1.2 cm
(1/2")

Position 1

8.2 cm
(3 1/4")

1.9 cm
(3/4")
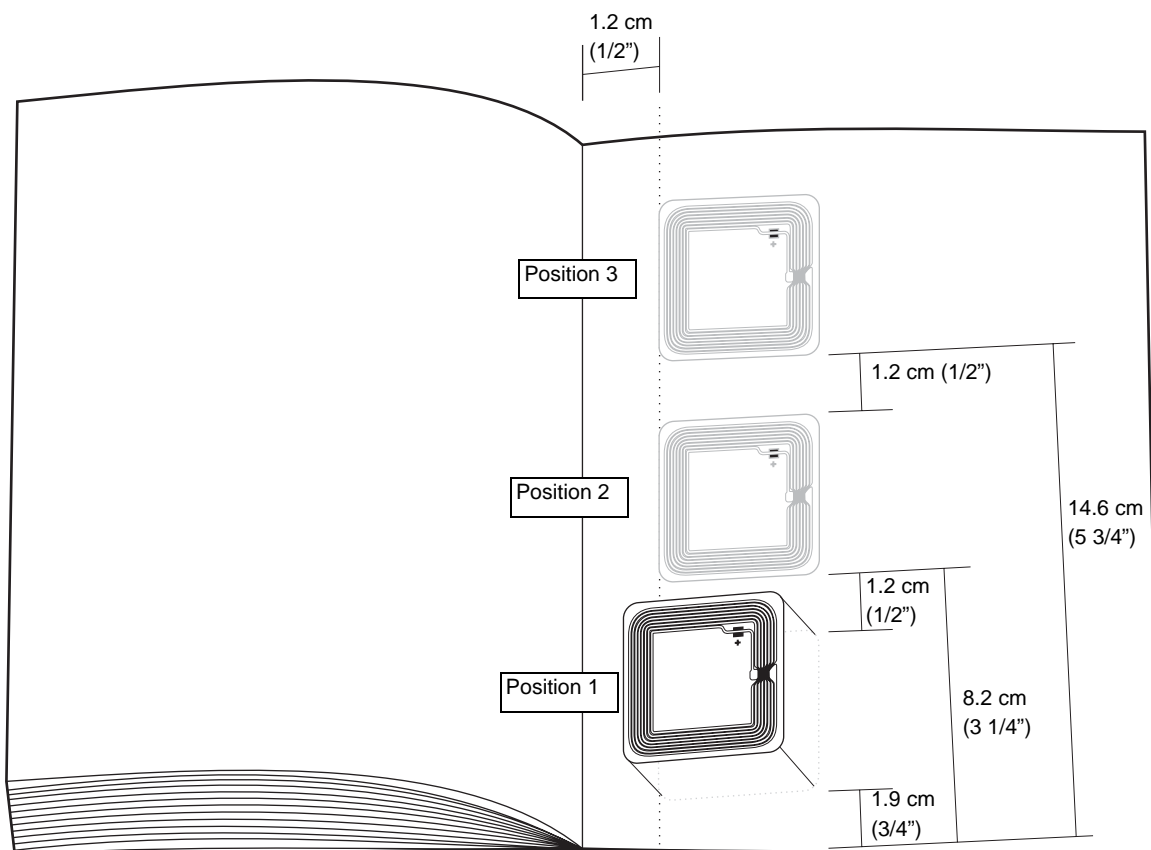
Figure 8.4 Book Tagging Procedure

1 Open printed material to the inside back cover.

2 Peel the backing from the tag.

Note: Metallic covers interfere with reading of the circuit. If the book has a metallic cover, photocopy or replace the cover. Or cut a 3″ x 3″ (7.6 cm x 7.6 cm) section from the back of the cover and place the tag in this section.

3 Place the tag in position 1; the lower inside corner of the printed material, leaving 1.2cm (½") clearance from the spine of the material and 1.9cm (3/4") from the bottom of the material, as seen in the tag placement diagram above.

4 In the next printed material, place the tag in position 2. This is 1.2cm (½") above the top of the tag in the first printed material at position 1, as shown in the tag placement diagram. The total distance from the bottom of the printed material to position 2 is 8.2cm (3 1/4").

5 In the next printed material, place the tag at position 3. This is 1.2cm (½") above the top of the tag at position 2, as shown in the tag placement diagram. The total distance from the bottom of the printed material to position 3 is 14.6cm (5 3/4").

6 This completes the treatment pattern, which is now repeated successively for all subsequent materials.

Note Do not place the tag over an EAS tag.

Applying Tags to Video Cassettes

Use only **Video tags** on video cassettes.

To place tags on video cassettes:

1 Place the tag on the spine of the cassette, on the same side as the title label.

2 Place the cover label over the tag. You can print a barcode as part of the cover label.
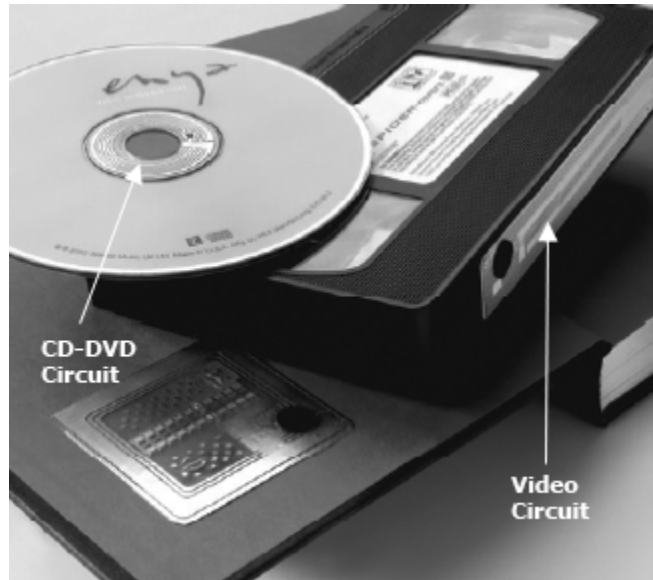
Figure 8.5 Sample Placement of tags on a CD and a Video Cassette

Applying tags to CDs and DVDs

You can use either **CD-DVD Content tags** or **Standard tags** on CDs and DVDs.

To place barcode labels on CDs

▸ Place the second, peelable barcode label on the back of the CD case. See Figure 8.7.
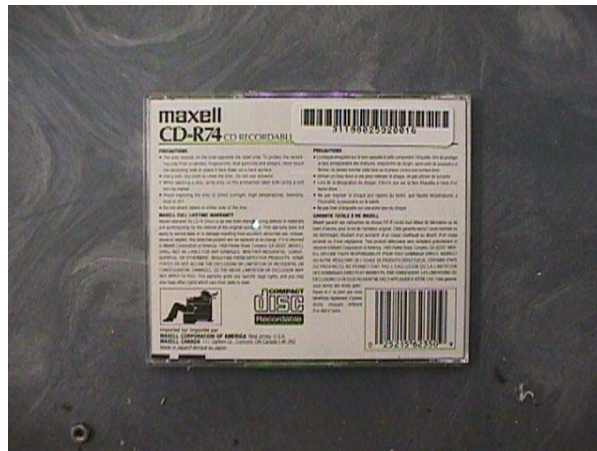
Figure 8.6 Sample placement of a barcode label on a CD

To place tags on Jewel Case CD cases

This procedure only applies to jewel cases.

1 Disassemble the CD, and place the tag with the printed barcode cover label in the upper or lower left corner, near the spine.

2 Reassemble the CD.

3 Place the second, peelable barcode label on the back of the CD case. See Figure 8.7.

To place content tags on CDs and DVDs

This procedure explains how to correctly place the content circuits (aka hub tags) on CDs or DVDs. For precise placement on the center of the disc, use the CD/DVD labeling applicator (the blue arched tool).

1 Move the applicator to a smooth surface, such as a tabletop, so that it slides easily.

2 Peel the backing off of the content circuit.

3 Place it upside down (adhesive side up) on the applicator.

Figure 8.7 Sample placement of a barcode label on a CD

4 Place the disc upside down (label-side down) on top of the content circuit and press firmly down until the applicator bends flat.

5 Remove the disc and press down around the entire content circuit with your finger until it lies smoothly on the disc.

To place tags on DiscMate DVD cases

This procedure only applies to DVD cases. To place standard 2" x 2" tags on DiscMate DVD (single or double) cases:

1 If necessary, unlock the case.

2 Open the DVD case.

3 Peel the backing from the tag.

Figure 8.8 Sample Placement of Label on a CD/DVD Case

4 On the inside the front of the case, place the tag into the very top right corner, as close to the spine and top of the case as possible. Make sure that the dot is farther away from the spine and top of the case, as seen above.

5 If desired, affix a library cover-label sticker over the tag.

✎ Note   When re-inserting DVD covers, do not use original artwork that is made of cardboard weight stock. The thicker cover may not allow the DiscMate case to slide through the DiscMate opening properly, due to the material's thickness. Original artwork should be scanned or copied onto regular (20 lb.) paper stock before putting under the dust jacket.

To place tags on DiscMate CD cases:

To place standard 2" x 2" tags on DiscMate CD (single or double) cases:

1 If necessary, unlock the case.

2 Open and flip the CD case over so that backside of it faces upward. In this position, the CD retaining hub is facing downwards.

3 Remove the CD from the case's retaining hub.

4 Peel the backing off of the tag.

Dot
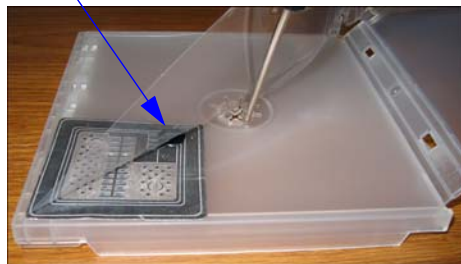
Circuit placed under clear film   Circuit on the outside with case in up position

Figure 8.9 Placement of tag on a CD Case

5 Lift the clear plastic film away from CD case and slide the tag underneath, into the very bottom corner, as close to the edges as possible. Position the dot on the circuit so that it points to the center of the case, as seen above.

6 If desired, affix a library cover-label sticker over the tag.

Note 1 When re-inserting CD covers, do not use original artwork that is made of cardboard weight stock. The thicker cover may not allow the DiscMate case to slide through the DiscMate opening properly, due to the material's thickness. Original artwork should be scanned or copied onto regular (20 lb.) paper stock before putting under the dust jacket. It is okay if part of the RFID circuit extends to the center hub of the case.

Note 2 A cover-label is available that covers both sides of the tag. The cover-label may be printed to give it the appearance of a property sticker. Please contact your account representative for more information on this product.

Applying Tags to Audio Material

Use only **Standard tags** on audio material.

To place tags on Audio Cases with Tapes on only one inside section:

1 Place the tag on the inside front cover, centered horizontally and vertically.

2 Place the cover label over the tag. You can print a barcode as part of the cover label.

Figure 8.10 Sample Placement of tag and Label on Audio Material

To place tags on Audio Cases with Tapes on both inside sections:

1 Remove the card stock from the outside sleeve of the front cover.

2 Place the tag in the sleeve, against the box, and replace the card stock so it covers the tag.

3 If the card stock is metallic, photocopy the card stock, and replace the metallic card stock with the photocopy.

Applying Tags to Kits

Use only **Standard tags** on kit material.

1 Place the tag on the outside of the bag, or on the most valuable library material in the kit.

2 Place the cover label over the tag. You can print a barcode as part of the cover label.

Figure 8.11 Sample Placement of Tag and Label on Kit Material

USING TAG PROGRAMMING STATION

Overview

The following procedure explains how to use Tag Programming Station (printer programmer) and the associated Tag Programming Application.

Figure 9.1 Tag Programming Station

The Tag Programming Station programs all ISO-compliant tags for the library. The Tag Programming Station prints out a library label (tag) with the RFID chip already built into it, simplifying the library material tagging process. Once printed, library personnel peel the backing off of the tag and attaches it to the material in the approved location. See the Tagging Procedures document for details.

Libraries use the Tag Programming Station to program tags with the item identifier from the barcode when converting a retrospective library collection. Tags are also programmed when new materials are added to the collection.

When adding a new item to the collection and programming the tag, the library can also print a barcode label on the tag. In many cases, libraries support the use of barcodes in addition to the RFID inventory tags, primarily for compatibility with other branch libraries still using barcodes.

The equipment and files you need for this are:

- Tag Programming Station
- Tag Programming Application
- Programming Station Computer with monitor, keyboard, and mouse
- Barcode scanner
- USB to Serial Converter (2 qty) or a Serial Port Board
- Eventually, an active network connection from the TPS computer to the Application Server

How it works

ISO-ready tags are programmed (encoded) with the item identifier used by the LMS using the Tag Programming Station. In an RFID-only environment, this would be all that a library would do to convert their restrospective collection for using RFID tags.

For those libraries that will continue to support barcodes as well as RFID (mainly for support with branches that have not been converted yet), the library can also print a barcode on the label at the same time when programming a tag, linking the same item identifier used by the barcode and the tag.

The high-level process by which tags are programmed is as follows:

1 Decide if you are programming new or existing materials:

- If programming new materials, the program creates a new item identifier.
- If using existing barcodes, you will scan the barcode for the item identifier to be programmed to the tag.

2 The Tag Programming Station prints and programs the tag with the item identifier.

Programming Procedure

New Material

Use this procedure to program tags for new material using Auto-Increment mode for use within the ILS system.

1 On the Tag Programming Station computer, click **Start > All Programs > Checkpoint Systems > ISO Tag Programming Station**. The initial Tag Programming Application displays.
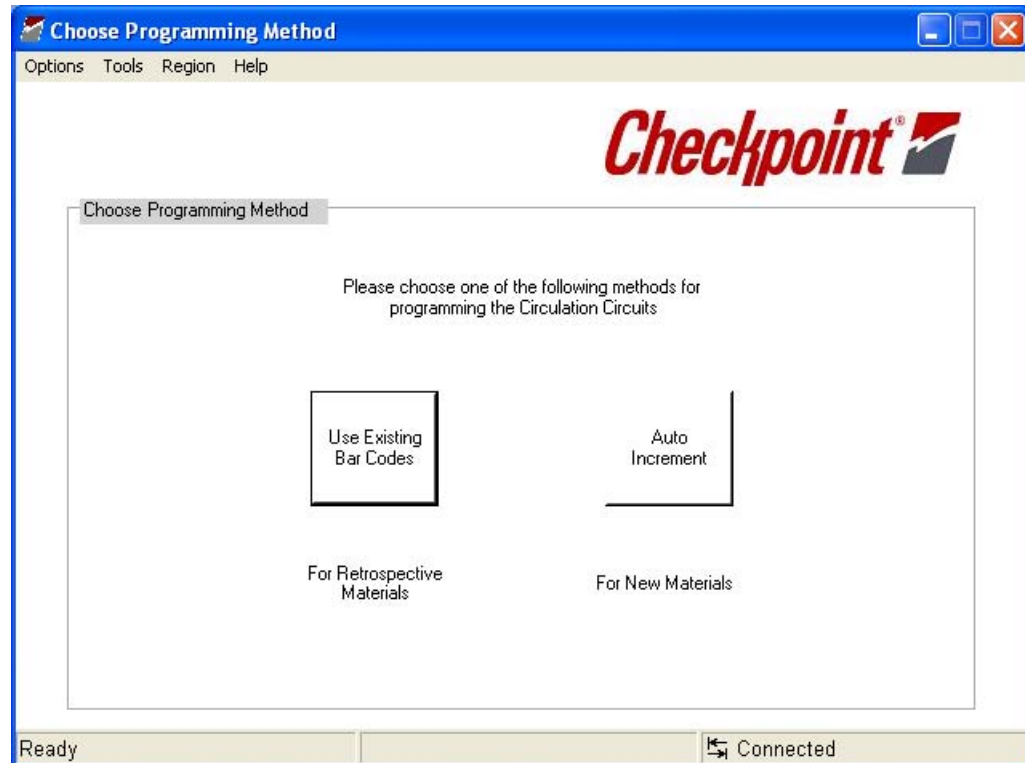
Figure 9.2 TPS Initial Choice

2 Click **Auto Increment**. The Server Configuration window displays:
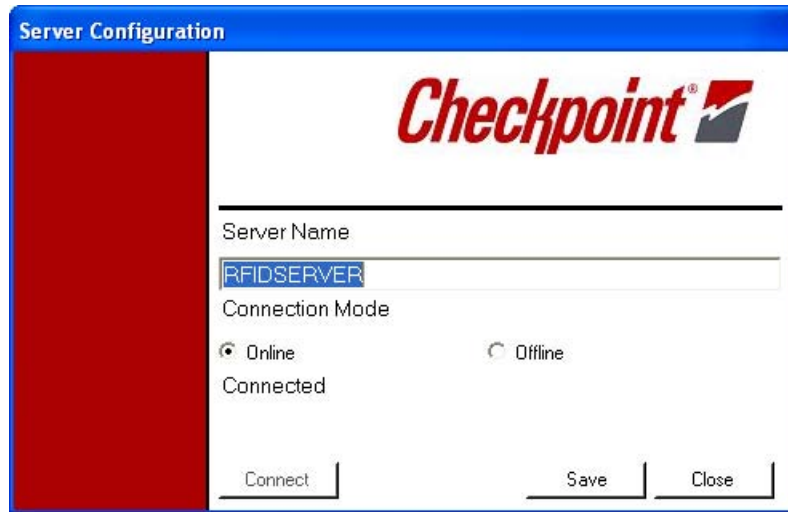
Figure 9.3 Server Configuration window

3 Type the **name of the Application Server** to which you will eventually upload the tag information; most likely it is **RFIDSERVER**.

4 Select the Connection Mode you will use.

- If you are connecting to Application Server, select **Online**. Click **Connect** if you select this option to verify you have a live connection to the Application Server. A *Connected* should appear.

- If you are not connecting to Application Server, select **Offline**. You can connect at a later date to upload the programmed tag information.

5 Click **Save**, to save your choice, then **Close**. The Serial Port Configuration window displays.

✎ Note: If a format file has never been created, the Label Format Selection window appears. Contact your Checkpoint service personnel for assistance in this instance.
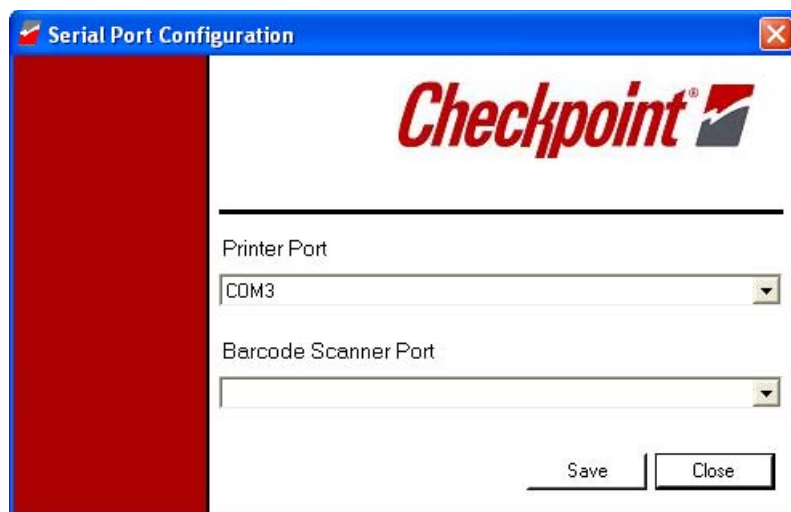
Figure 9.4 Port Selection window

6 Select the **COM port** used for the Printer Port and click **Save** and **Close**.

7

USING DISCMATE

Overview

DiscMate is an easy-to-use protection security solution for libraries' electronic media.

The DiscMate solution consists of two units:

*   The Standard Unlocking Station
*   The Intelligent Unlocking Station

The Standard Unlocking Station is a manual unit used by the library staff to check-in or checkout CD/DVD media. The Intelligent Unlocking Station is an automated unlocking unit that library patrons use at the Self-Checkout Station to checkout CD/DVD media without staff assistance.

Standard Unlocking Station   Intelligent Unlocking Station

Figure 10.1 DiscMate Products

✎ Note: The Intelligent Unlocking Station meets North American regulatory approvals. The European regulatory approvals are not applicable at this time.

LEDs on the Intelligent Unlocking Station

The Intelligent Unlocking Station uses three LEDs to communicate information about the activity of the unlocking process.
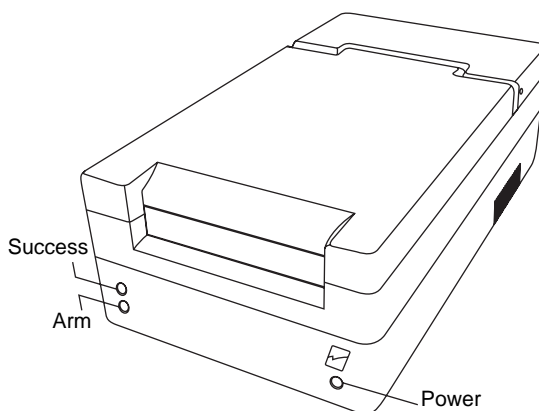
Figure 10.2 Intelligent Unlocking Station LEDs

The LEDs are explained below:

Table 10.1 CD/DVD Report Detail

LED Name	Description
Success	Illuminates when the case is successfully unlocked.
Arm	Illuminates when the case has been successfully inserted.
Power	Illuminates when power has been turned on.

Using the Standard Unlocking Station

The Standard Unlocking Station consists of a black base with a key at one side. The key allows you to secure the station so that it cannot be used to unlock cases without authorization.

1 If necessary, insert the key and turn to lower the locking bar.

2 Insert the long edge of the case with locked symbol (red rectangle) down into the slot and swipe evenly across.

3 Check the case to ensure that the red rectangle does not appear. If not, rotate the case around and swipe again. Your case is now unlocked.

Using the Intelligent Unlocking Station

The Intelligent Unlocking Station consists of a black base with LEDs and a slot at the front where you insert the case. The Intelligent Unlocking Station sits next to a Self-Checkout Station and performs the unlocking automatically.
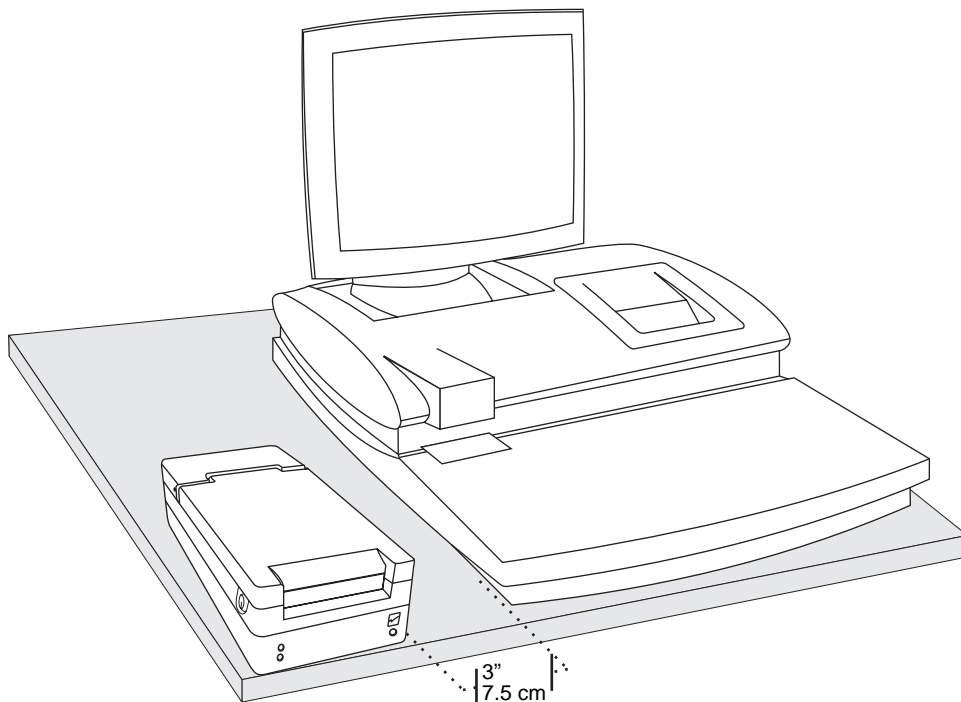
Figure 10.3 Self-Checkout Station with the Intelligent Unlocking Station

✎ Note: Do not place your electronic materials near the Intelligent Unlocking Station during the checkout process. The Intelligent Unlocking Station may read your materials before you are ready. Place your CD/DVDs on a table away from the Intelligent Unlocking Station before checking them out.

1   Follow the prompts on the Self-Checkout Station monitor to checkout materials.

2   When instructed, insert the case into the slot. You must insert the top of the case with the locked symbol (red rectangle) on the right hand side of the case. See "Intelligent Unlocking Station Case Insertion Diagram" on page 10-4 for more details.

3   Push the case all the way until it stops. The bottom light at left, the arming light, illuminates, indicating you have correctly inserted the case.

4   The Intelligent Unlocking Station accepts the case, unlocks it, and returns it. The top left light illuminates, indicating a successful unlocking procedure has occurred.

5   Once the case stops moving, remove the case from the Intelligent Unlocking Station. Your case is now unlocked.

Intelligent Unlocking Station Case Insertion Diagram

The following diagram illustrates the correct orientation for case insertion into the Intelligent Unlocking Station.
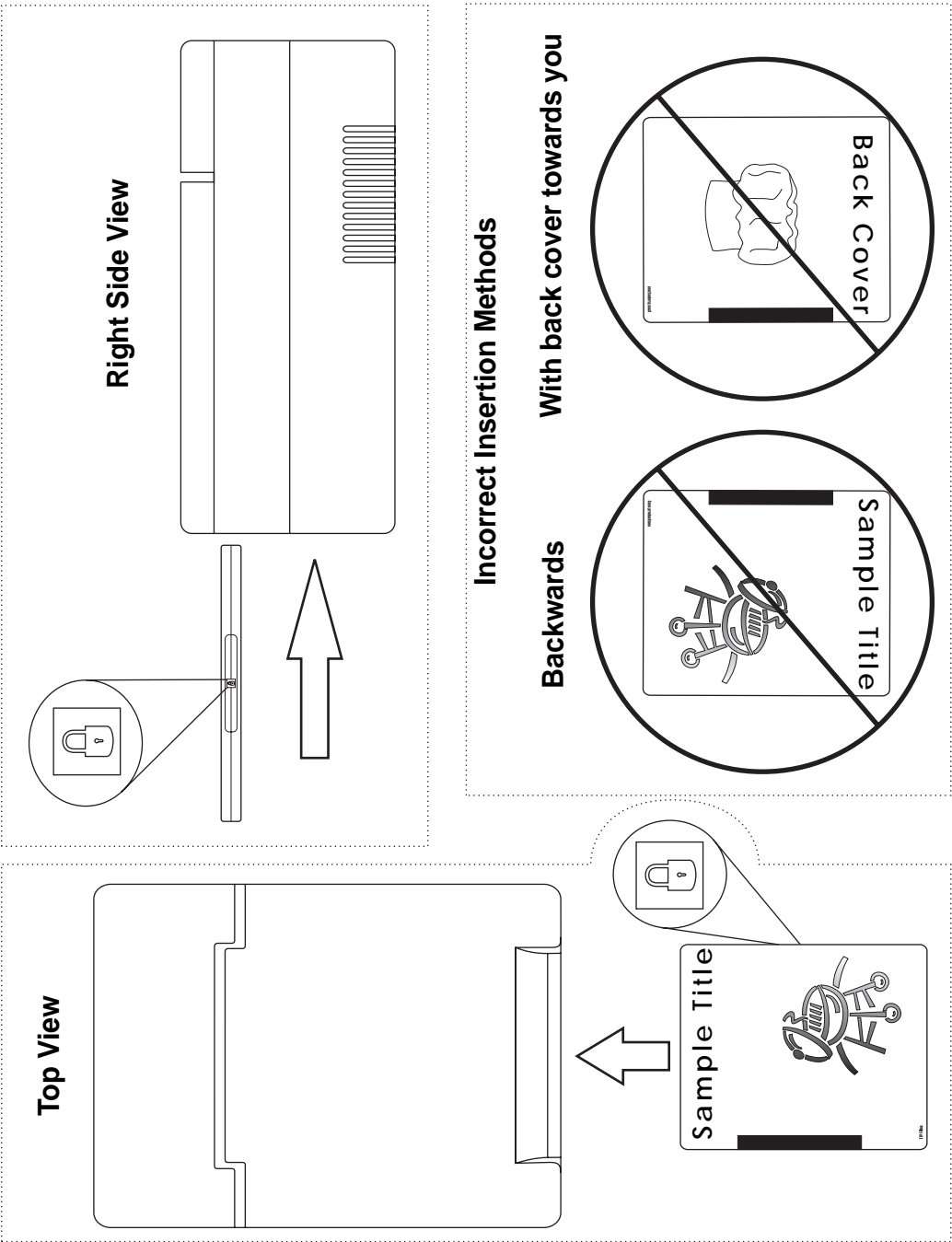
Figure 10.4 Case Insertion Diagram

Linking Procedure

The DiscMate solution uses circulation circuits (RFID tags) to track electronic media within the Intelligent Library System Open Plus. Two tags can be used to maintain content validation: a security tag and a content tag. The security tag (sometimes known as the case tag) is the larger tag on the inside of the case that is read by the exit gates. The content tag (sometimes known as the hub tag) attaches directly to the disc around the inner ring of the disc, which in this procedure, is linked to the security tag.

The linking procedure performs a dual purpose: to link the security and content tags together and to enter the security ID number into a database. The procedure creates a relationship between the contents of the case and the case itself, producing a single security ID number (Linked Set) that is utilized by the LMS. That security ID is stored in a database that verifies the check-in/checkout status of the electronic media upon checkout, and if applicable, whether the case requires unlocking.

The DiscMate solution is a flexible in handling the different implementation scenarios used by libraries. For example, one library might decide they will use barcodes on a case and a content tag on a CD/DVD. Another library might decide that they require the security tag and content tag on jewel and locking cases. The different situations are configured within the Circuit Linking Utility.

Configuring Hardware to Link Media

To run the Circuit Linking Utility, you need:

- Circulation Circuit Programmer computer
- 2 Barcode scanners
- Barcode scanner user manual
- Staff Station Reader configured as a tag pad
- Circuit Linking Utility program
- Gender changer, DB25 male to DB25 male adapter
- DB25 female to DB9 female adapter
- Keyboard Wedge cable, with one male and one female connector

Circuit Linking Hardware Diagram

The following is a top down view of how the hardware is connected together. Ensure that all items are attached in this configuration before proceeding.
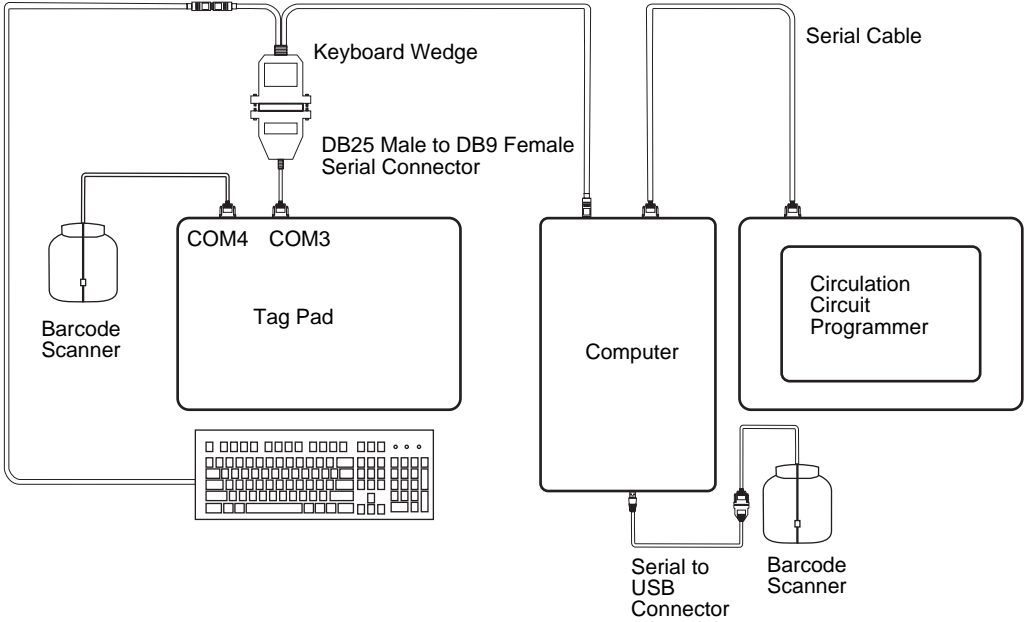
Figure 10.5 Circuit linking hardware diagram

Linking Electronic Media with Confirmation

Use this procedure to prepare individual CD/DVD media for use within the ILS system. Each time you link, a confirmation message appears.

✎ Note: For linking to successfully occur, the title of the material must be entered into the circulation database prior to linking.

1 On the computer, click **Start > All Programs > Circuit Linking Utility**. The Circuit Linking Utility appears.
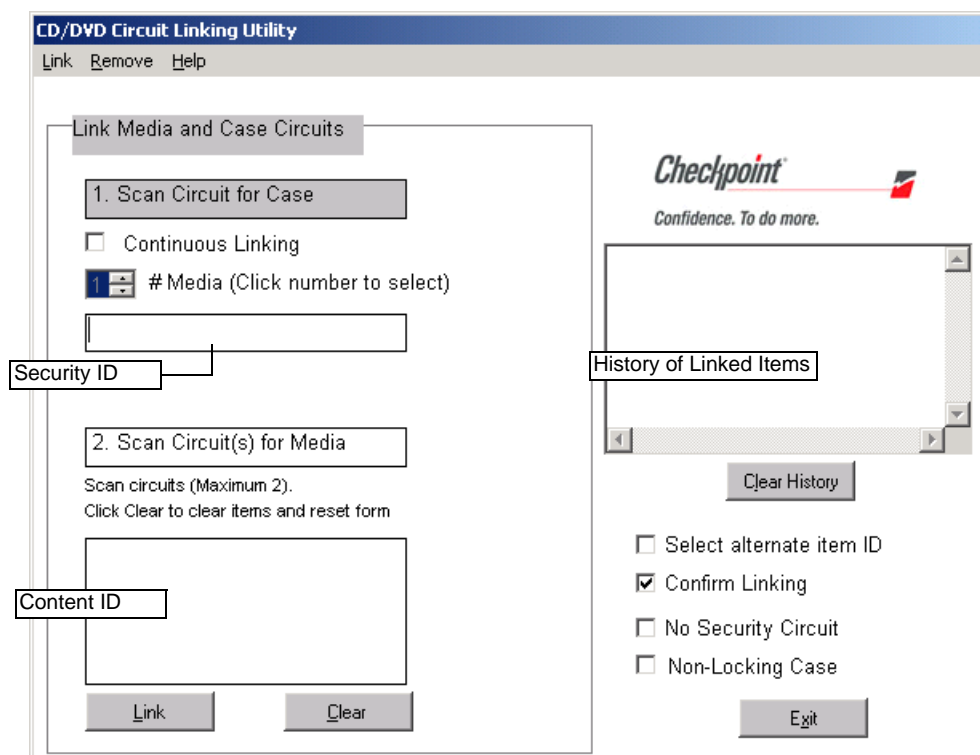
Figure 10.6 Circuit Linking Window with Confirmation

2 Select the parameters for the media you are linking:

- if using a Content ID as an item identifier, click *Select alternate item ID* and then select either/both *Use as item ID*.

- ensure *Confirm Linking* is selected

- select *No Security Circuit* if you are linking a barcode and not an RFID tag

- select if using a *Non-Locking Case* (such as a jewel case)

3 If linking (RFID) security and content tags:

a Wave the **case with the front label down** over the tag pad with the disc(s) inside. The case tag and content tags are automatically sorted into the appropriate fields.

4 If linking a barcode (non-RFID) and content tags:

a Scan the **barcode** on the case. The case's barcode number appears. This is the number to which the contents of the case will be linked.

     b Wave **each disc** over the tag pad; or if the disc(s) are inside the case, wave the entire case (front label up) over the tag pad. Hold the CD/DVD case from the bottom, face down when you wave the case over the tag pad.

5 Click **Link**. If the green checkmark appears, your material is now linked and ready to use. Retry the operation if a red X appears.

Linking Electronic Media Continuously

Use this procedure to prepare CD/DVD media for use within the ILS system. When continuously linking, no confirmation message appears, allowing you to link more quickly. Only link similar sets of media at one time to continuously link. For example, if linking cases with 2 DVDs each inside, select that parameter and link all of those at one time.

✎ Note: For linking to successfully occur, the title of the material must be entered into the circulation database prior to linking.

1 On the linking computer, click **Start > All Programs > Circuit Linking Utility**.
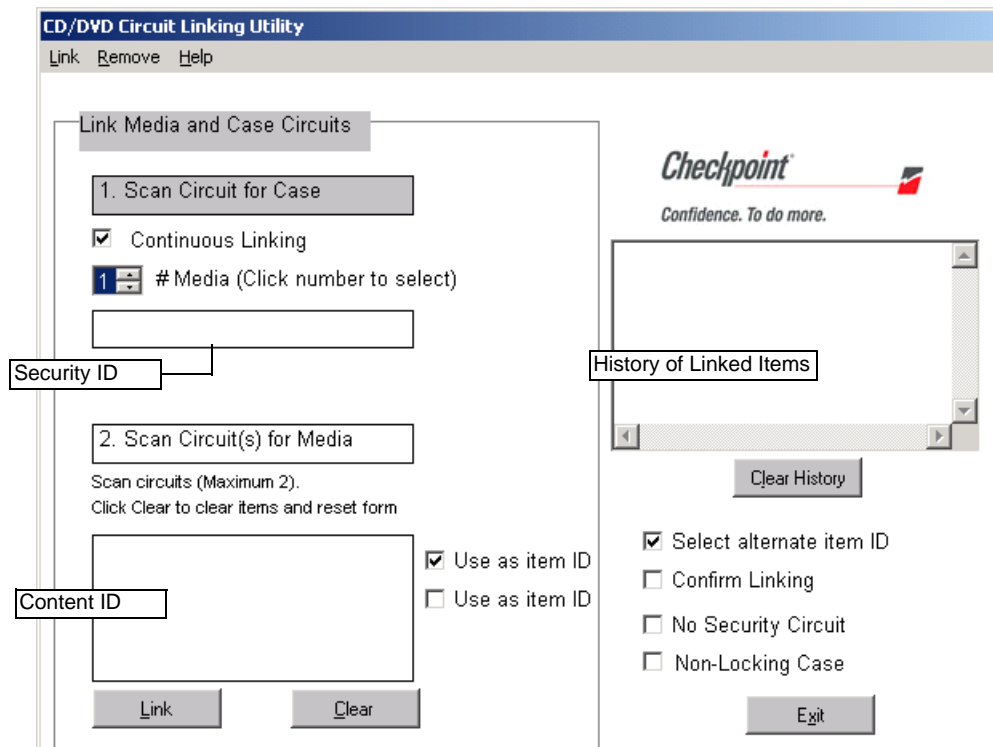
Figure 10.7 Circuit Linking Continuously with Content ID as Item Identifier

2 Select the parameters for the media you are linking:

- ensure *Continuous Linking* is selected

- if using a Content ID as an item identifier, click *Select alternate item ID* and then select either/both *Use as item ID*.

- select *No Security Circuit* if you are linking a barcode and not an RFID tag

- select if using a *Non-Locking Case* (such as a jewel case)

3 Select the **# of media** (discs) inside the case by clicking the up and down arrows and then clicking the number within the dialog box.

4 If linking (RFID) security and content tags:

   a Wave the **case with the front label down** over the tag pad with the disc(s) inside. The security tag and content tags are automatically sorted into the appropriate fields. Hold the CD/DVD case from the bottom, face down when you wave the case over the tag pad.

✎ Note: If the tag pad reads the content tags first, repeated beeps will be heard. Just ignore the beeps and try again. If the Item ID in the Security ID box is invalid, click Clear and try linking again.

5 If linking a barcode (non-RFID) and content tags:

   a Scan the **barcode** on the case. The case's barcode number appears. This is the number to which the contents of the case will be linked.

   b Wave **each disc** over the tag pad; or if the disc(s) are inside the case, wave the entire case (front label up) over the tag pad.

6 If the green checkmark appears, your material is now automatically linked and ready to use. Retry the operation if a red X appears. Repeat the process as many times as necessary for the number of media and type of case selected.

Removing Linked Media

You can remove electronic media from circulation with the Remove Media and Case Link window. This can be useful when material is incorrectly linked; for example, if a Beethoven disc becomes accidentally linked to a Schubert case, or if you remove the media from circulation.

1 On the linking computer, click **Start > All Programs > Circuit Linking Utility**.

2 Click **Remove** at the top menu bar. The Remove Media and Case Link window appears.
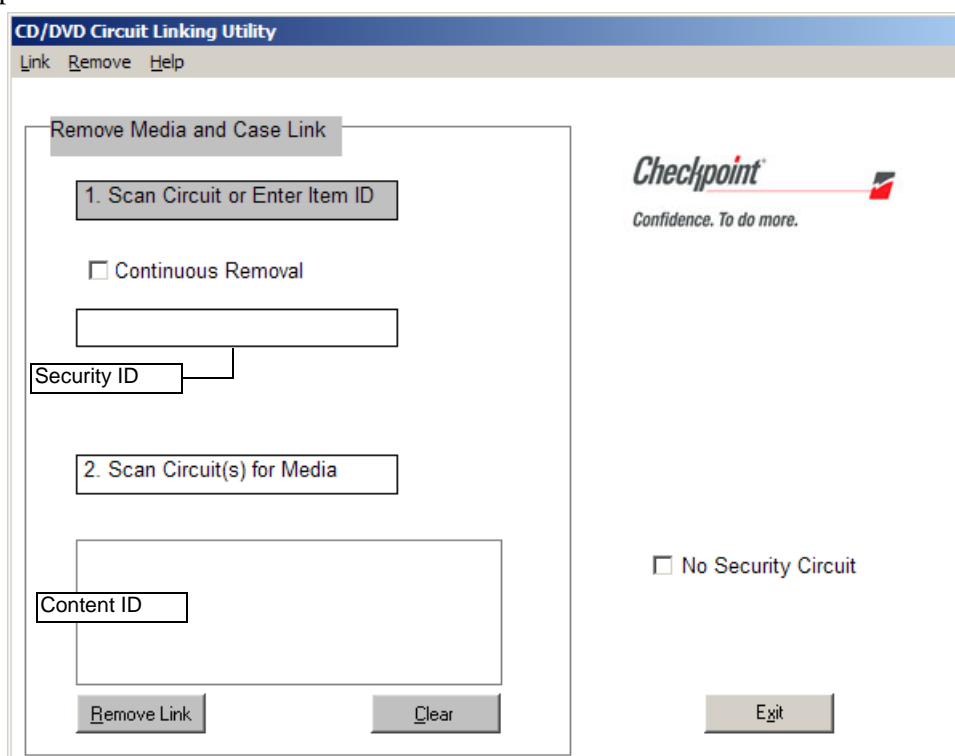
Figure 10.8 CD/DVD Circuit Removing Window

3 Select the parameters for the media you are linking:
   • select *Continuous Removal* if removing multiple cases
   • select *No Security Circuit* if you are removing a linked barcode

4 If removing security and content tags:

   a Wave the **case with the front label down** over the tag pad with the disc(s) inside. The security tag and content tags are automatically sorted into the appropriate fields.

5 If removing a barcode and content tags:

   a Ensure No Security Circuit is selected and scan the **barcode** on the case. The case's barcode number appears.

6 Click **Remove**, or if continuously removing, the material is automatically removed. Repeat the process as many times as necessary. If the green checkmark appears, your media are now removed. If a red X appears, the program cannot find the set in the database.

DVD Linking Reports

The Circuit Linking Utility generates information that can be compiled into reports. These reports are viewed and printed from ILS Remote Monitor. For general usage instructions on ILS Remote Monitor, reference the relevant chapter within the ILS User Guide.

Accessing and Printing Linking Reports

To launch ILS Remote Monitor in a single server, multi-branch environment:

1 Open a browser window.

2 Type **http://<machine name of server>/ils** in the address bar and press **Enter**. Optionally, use the saved bookmark in your Favorites menu.

3 Type your ILS Remote Monitor user name of *ilsreport* and the password *report123*. The ILS Remote Monitor utility displays.

4 From the top menu, click **Branch** and click **Select** of the branch where the Circuit Linking Utility resides. The branch location is programmed when installed. If the branch name is incorrectly installed, then you will not be able to run reports.

5 From the top menu, click **Reports**. The Report window displays.
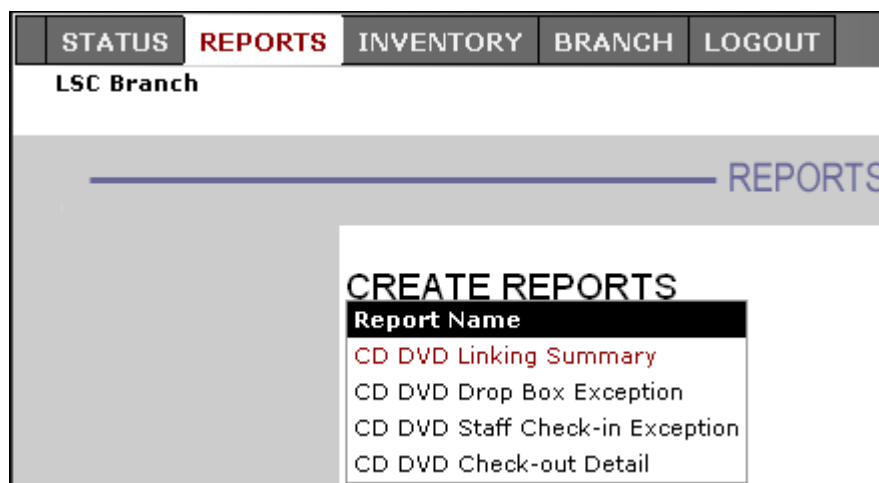
Figure 10.9 CD/DVD Report Selection

The report types are explained below:

Table 10.1 CD/DVD Report Detail

Column Header	Description
CD DVD Linking Summary	Presents the details of what items were linked for CD/DVD material.
CD DVD Drop Box Exception	Lists anomalies that occurred at the drop box for CD/DVD material.
CD DVD Staff Check-in Exception	Lists anomalies that occurred during check-in at the Staff Station Reader for CD/DVD material.
CD DVD Check-out Detail	Lists anomalies that occurred during checkout at the Staff Station Reader for CD/DVD material.

6 Click the **type of report** desired. The window displays the options for defining the report.

CD DVD Linking Summary
Total number of Linked Sets: 16 Security Tags containing 18 CD/DVD's

Select time period and click 'Create Report' button. Reports will list transactions for the currently selected branch.

From:
5/10/2005   [...]

To:
5/11/2005   [...]   ⊙ Create Report

Figure 10.10 Defining Report Parameters

7 Type the **dates** you wish for which you wish to view activity, or use the calendar buttons [...] and select the date required.

8 Click **Create Report** once your dates are entered.

9 To print the report, click **File > Print**.

10 Select **Landscape** orientation and click **OK**.

Type of Reports

Listed here are descriptions of the available reports for the Intelligent Unlocking Station. See for details on how to access and view reports.

Linking Summary Report

This report identifies exceptions generated from a Circuit Linking session.

Table 10.1 CD/DVD Linking Summary Detail

Column Header	Description
ContentTagID	The item number of the contents of the case.
SecurityTagID	The item number of the case.
Link DateTime	The day and time the item was linked.
Case	The type of case that was selected when linked, Locking or Non-Locking.
Title	The title of the item.
LinkAuthor	The name of the computer at which the linking occurred.
LinkStation	The branch location of the computer at which the linking occurred.

Check-out Detail Report

This report identifies exceptions generated from Self-Checkout Station sessions where an Intelligent Unlocking Station is attached.

Table 10.2 CD/DVD Check-out Detail Report

Column Header	Description
StationType	The type of device at which the exception occurred. 1. Drop Box 2. Staff Station 3. Self-Checkout Station
StationID	The name of the station.
ExceptionType	The name of the exception.
Tag	The item identifier of the exception.
ExceptionDT	The date and time when the exception occurred.
LibBranch	The branch at which the exception occurred.

Staff Check-In Exception Report

This report identifies exceptions generated from Staff Station Reader sessions where an Intelligent Unlocking Station is attached.

Table 10.3 CD/DVD Staff Check-In Exception Report

Column Header	Description
StationType	The type of device at which the exception occurred. 1. Drop Box 2. Staff Station 3. Self-Checkout Station
StationID	The name of the station.
ExceptionType	The name of the exception.
Tag	The item identifier of the exception.
ExceptionDT	The date and time when the exception occurred.
LibBranch	The branch at which the exception occurred.

Drop Box Exception Report

This report identifies exceptions generated from Drop Box sessions.

Table 10.4 CD/DVD Drop Box Exception Report

Column Header	Description
StationType	The type of device at which the exception occurred. 1. Drop Box 2. Staff Station 3. Self-Checkout Station
StationID	The name of the station.
ExceptionType	The name of the exception.
Tag	The item identifier of the exception.

Table 10.4 CD/DVD Drop Box Exception Report

Column Header	Description
ExceptionDT	The date and time when the exception occurred.
LibBranch	The branch at which the exception occurred.

11

CHECKPASS

This chapter describes the CheckPASS utility and explains how to use it.

CheckPASS is an optional feature that allows library patrons to pay library fees at a Self-Checkout Station, without staff assistance. Outside of the ILS product, patrons use a self-service unit to add cash to their account balances. Within the ILS product, patrons are reminded of outstanding library fees when they attempt to check out materials. They can then pay with the touch of a button at the Self-Checkout Station. Patrons save time, and library staff is freed to perform other tasks.

Using CheckPASS

If you have outstanding library fees, ILS displays the amount owed and prevents you from checking out material until the fee is paid. Take the following steps to pay the outstanding fee:

1 Scan your Patron Card. If ILS determines that you have outstanding fees, it displays the message shown in Figure 11.1.
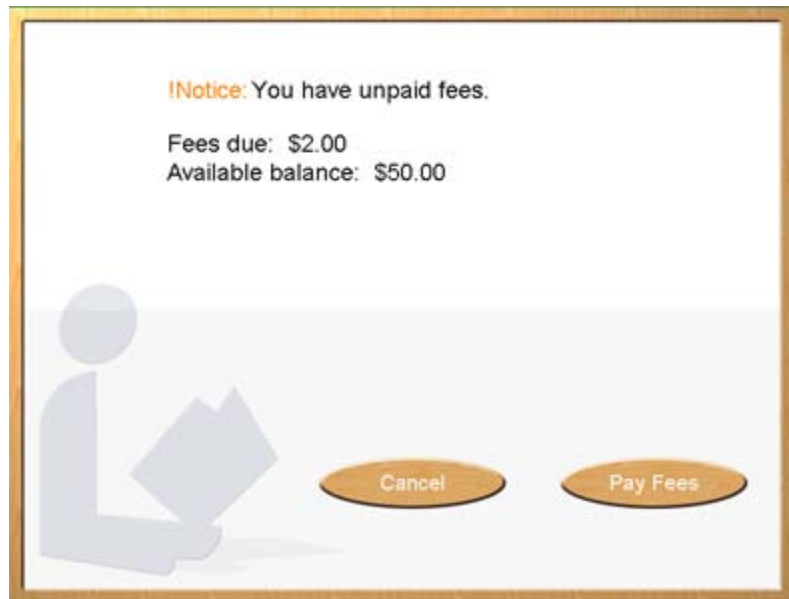
Figure 11.1 Outstanding fee message

2 Touch **Pay Fees** to pay the fee. Touch **Cancel** to cancel the transaction. If you pay the fee, a confirmation message displays, showing your new account balance (Figure 11.2).
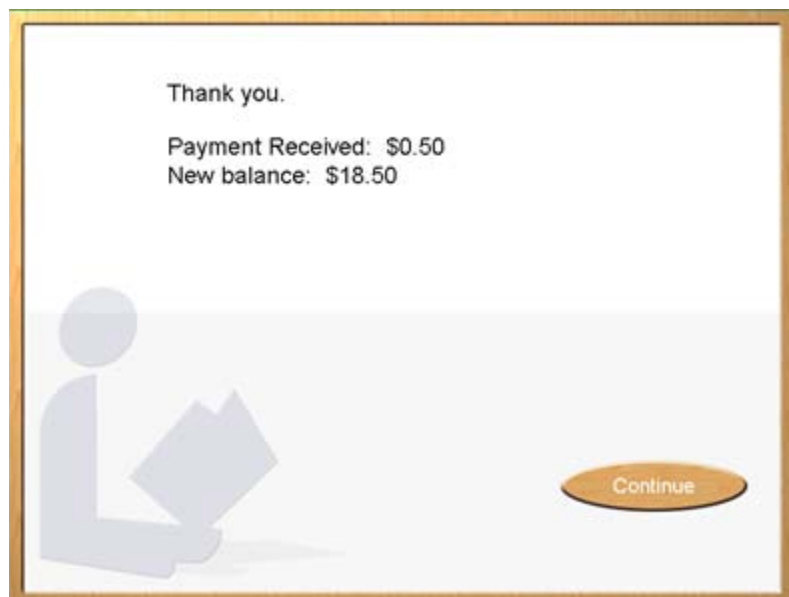
Figure 11.2 Payment confirmation message

3 Check out the library material, as normal.

4 If you have insufficient funds to pay the fee, the message shown in Figure 11.3 displays.
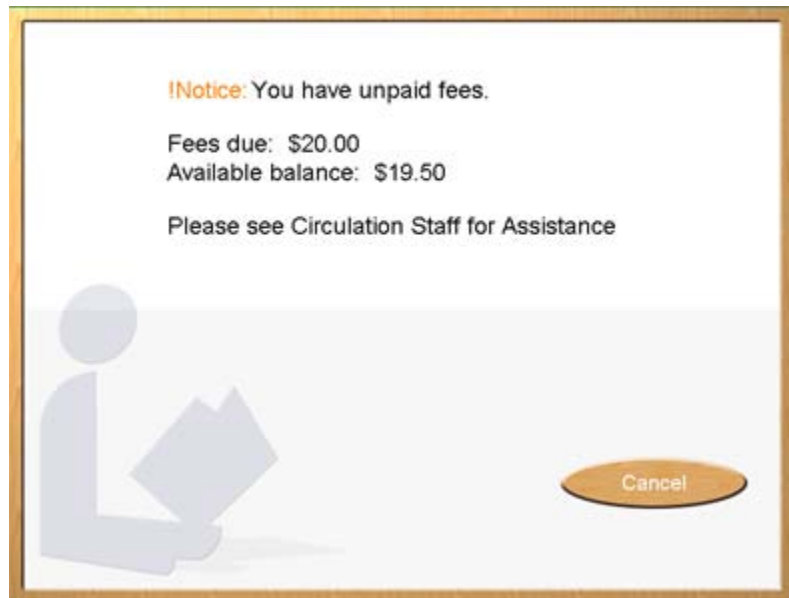
Figure 11.3 Insufficient funds message

5 See a library staff member for assistance.

Notes

TROUBLESHOOTING GUIDE

This chapter describes procedures you can follow to try to correct problems that may arise with various ILS components. Problems and possible solutions are grouped by component, in the following sections:

- Patron Self-Checkout Station (page 12-1)

- Application Server (page 12-4)

- Exit Interrogator (page 12-5)

- Staff Station Reader (page 12-6)

- CheckVIEW (page 12-9)

In addition, this chapter describes how to restart the Patron Self-Checkout stations (page 12-8), the Intelligent Library Controller software (page 12-8), and the Application Server itself (page 12-8).

If these instructions do not produce the desired results, contact Technical Support at **800-257-5540, ext. 4100**.

Contact Technical Support

Before calling technical support, note the date and time that the problem occurred, and list steps you have taken to try to correct the problem.

Contact Checkpoint Technical Support at **800-257-5540 ext. 4100.**

Self-Checkout Station Scenarios

Problem **Valid Patron ID Not Recognized**

When using the Barcode Scanner to scan a Patron ID, the Self-Checkout Station does not recognize the Patron ID...

Solution

1 Verify that the Self-Checkout Station is displaying the Patron Entry screen (video depicts a Patron ID being scanned). If so, be sure you are using the same reader depicted in the video.

2 Clean the Barcode Scanner lens.

3 Scan the Patron ID card again. The Barcode scanner beeps when it successfully reads a barcode. If it does not beep, restart the Self-Checkout Station (see "Restarting the Self-Checkout Station" on page 12-8).

4 If the problem persists after restarting the Self-Checkout Station, the scanner may be damaged or may require service or replacement. Contact Technical Support (see "Contact Technical Support" on page 12-1).

Problem ## Nothing Happens After an Item is Scanned

You scan an item and nothing happens...

Solution

1 If the video demonstrating an item checkout stops, the system is processing your request. Wait a few moments.

2 If the video demonstration continues without pausing after the item is scanned, the Self-Checkout Station did not register the item. Try scanning a different item.

3 If the video stops for more than 1 minute, follow the instructions for "Restarting the Self-Checkout Station" on page 12-8.

4 If the problem persists after restarting the Self-Checkout station, contact Technical Support. See "Contact Technical Support" on page 12-1.

Problem ## Graphics Display Incorrectly or Not at All

The graphics (pictures or video) are not displaying or are displaying incorrectly...

Solution

1 Network connection could have been lost while the Self-Checkout Station was starting. Check all network connections to the Self-Checkout Station and Application Server.

2 If the connections are secure, restart the Self-Checkout Station. See "Restarting the Self-Checkout Station" on page 12-8.

3 If the problem persists after restarting the Self-Checkout Station, contact Technical Support. See "Contact Technical Support" on page 12-1.

Problem ## Printer Does Not Print

The printer does not print a receipt, or the Self-Checkout Station printer status reports an error...

Solution

1 Check that all receipts have been removed from the printer. Several receipts may be waiting to print. Remove each one, until all the receipts are printed.

2 Check that there is paper in the printer. To replace paper in the printer, see "Load Paper into Patron Self-Checkout Station Printer" on page 13-13.

3 If there is paper jammed in the printer, remove it, and reload the paper. See "Load Paper into Patron Self-Checkout Station Printer" on page 13-13 for instructions.

4 If the problem persists after following these steps, contact Technical Support. See "Contact Technical Support" on page 12-1.

Problem ## Printer Status of Unknown

The printer is working correctly, but the Self-Checkout Station status screen indicates a Printer Status of Unknown...

Solution

This problem is sometimes caused by rebooting the Self-Checkout Station when print jobs are in the printer queue. You must attach a keyboard to the Self-Checkout Station to fix this problem.

1 Power off the Self-Checkout Station.

2 Attach a keyboard to the Self-Checkout Station, and then power it back on. Hold down one of the shift keys on the keyboard during the network logon display, to prevent the Self-Checkout Station program from starting.

3 Select **Start** > **Settings** > **Printers**.

4 Select **File** > **Open**.

5 Select the print jobs that are on hold, and delete them.

6 Close the windows you have opened, then select **Start** > **Shutdown** to shut down the Self-Checkout Station.

7 Turn off the Power to the Self-Checkout Station, and remove the keyboard.

8 Turn on the power to the Self-Checkout Station.

9 If the problem persists after following these steps, contact Technical Support. See "Contact Technical Support" on page 12-1.

Problem ## Touch Screen Does Not Respond

The Touch Screen does not respond...

Solution

1 Check that the cable on the back of the monitor, which is plugged into the connection marked Touch Interface, is securely plugged in.

2 If all the connections are secure, the Touch Screen may be operating properly but the Self-Checkout Station is not currently accepting input, or you are not touching a hot spot that accepts input.

   a Be sure that the Touch Screen monitor is powered on.

   b Restart the Self-Checkout Station. See "Restarting the Self-Checkout Station" on page 12-8.

3 If the problem persists after following these steps, contact Technical Support. See "Contact Technical Support" on page 12-1.

Problem **Self-Checkout Station Fails to Start**

The Self-Checkout Station fails to start during power up, and the screen displays an error condition...

Solution

1 Allow the scandisk program to run until it finishes.

2 Check all network connections on the Self-Checkout Station and the Application Server. If they appear to be secure, restart all of the Self-Checkout Stations. See "Restarting the Self-Checkout Station" on page 12-8 for instructions.

✎ Note   If the Application Server is shut down or loses power, all Self-Checkout Stations must be shutdown and restarted. See "Restarting the Complete System" on page 12-8 for details.

3 If the problem persists after following these steps, contact Technical Support. See "Contact Technical Support" on page 12-1.

Application Server Scenarios

Problem **Self-Checkout Station Not Displaying**

One or more Self-Checkout Station(s) is not displaying in the System Status Display...

Solution

1 Make sure the Self-Checkout Station is running. If it is not running, the error message, "We are currently unable to provide access to the system" displays. If this message displays, the problem involves the connection between the Self-Checkout Station and the Application Server. Make sure the network is connected and configured properly.

2 If the Self-Checkout Station is running and behaving normally, but it is missing from the System Status display, restart the entire system. See "Restarting the Complete System" on page 12-8 for instructions.

3 If the problem persists after following these steps, contact Technical Support. See "Contact Technical Support" on page 12-1.

Problem **Trouble Printing a Report**

You cannot print a report...

Solution

1 Try to print a test page. Select **Start > Settings > Printers**. Right-click on the printer and select **Properties**. Click **Print Test Page**.

2 If you cannot print a test page, consult Windows Help.

3 If the test page prints successfully, contact Technical Support. See "Contact Technical Support" on page 12-1.

Problem **Error Message Displays when Running a Report**

You receive an error message when running a report...

Solution

The printer might have run out of paper, or there may be a problem with the configuration database. Contact Technical Support. See "Contact Technical Support" on page 12-1.

Problem **Exit Alarms Do Not Occur**

Exit Alarms do not occur when they should...

Solution

1 Power down and restart each Exit Interrogator.

2 Wait several minutes, then trigger an exit alarm. If no alarm occurs, restart the entire system. See "Restarting the Complete System" on page 12-8 for instructions.

3 If the problem persists after following these steps, contact Technical Support. See "Contact Technical Support" on page 12-1.

Problem **Host Status Incorrectly Reports Offline**

Host Status displays as Offline, when it is online...

Solution

The Host (LMS) Status indicator is accurate only when a Self-Checkout Station is running and properly connected to the Application Server. If no Self-Checkout Stations are connected, the Host Status field cannot be updated.

1 Make sure that at least one Self-Checkout Station is running.

2 Check all network connections between the Self-Checkout Stations and the Application Server. If they appear to be secure, restart the Self-Checkout Stations. See "Restarting the Self-Checkout Station" on page 12-8.

3 Check that the Library Management System (LMS) is running. Restart the LMS, if necessary.

4 If the problem persists after following these steps, contact Technical Support. See "Contact Technical Support" on page 12-1.

Exit Interrogator Scenarios

Problem **Exit Alarms Do Not Occur**

Exit Alarms do not occur when they should...

Solution

1 Power down and restart each Exit Interrogator.

2 Wait several minutes, then trigger an exit alarm. If no alarm occurs, restart the entire system. See "Restarting the Complete System" on page 12-8 for instructions.

3 If the problem persists after following these steps, contact Technical Support. See "Contact Technical Support" on page 12-1.

Problem ## No Sound Occurs for an Exit Alarm

No Exit Alarm sounds, but an Exit Alarm displays on the Intelligent Library Controller...

Solution

1 Power down and restart each Exit Interrogator.

2 Wait several minutes, then trigger an exit alarm. If no alarm occurs, restart the entire system. See "Restarting the Complete System" on page 12-8.

3 If the problem persists after following these steps, contact Technical Support. See "Contact Technical Support" on page 12-1.

Problem ## Incorrect Exit Alarm

Exit Alarm occurs, even though the item is properly checked out...

Solution

1 If your site allows off-line processing, the item may have been checked out while the LMS was offline. If you have not synchronized the Checkout Cache since the LMS returned to online status, do so now. See "Synchronizing the Checkout Cache" on page 2-8 for instructions.

2 If the item was recently checked out using a circulation desk Staff Station Reader, turn off the Staff Station Reader used, then turn it back on.

- If the problem persists, restart the ILS Controller application. See "Restarting the Intelligent Library Controller program" on page 12-8.

3 If the patron used a Self-Checkout Station, go to a Library Management System terminal, and verify that the item was checked out.

   a If the LMS does not have a record of the checkout, check the item out now.

   b If the LMS verifies that the item was checked out, contact Technical Support. See "Contact Technical Support" on page 12-1.

4 If the problem persists after following these steps, contact Technical Support. See "Contact Technical Support" on page 12-1.

Staff Station Reader Scenarios

Problem ## Valid Circuit Not Recognized

The Staff Station Reader does not recognize a valid item Circulation Circuit...

Solution

1 Check to make sure the Staff Station Reader is running.

   a Check to make sure the power cord is connected to the Staff Station Reader and plugged into a power source, and that all the remaining cable connections are

secure. Refer to the connection diagram, "System Connection Diagram" on page 12-11.

   b You should feel air moving through the air vents located on the side of the Staff Station Reader.

2 Scan the item again. Check the LED on the back of the Staff Station Reader. The LED blinks green when the Staff Station Reader successfully reads an item ID.

   a If the LED blinks green, but the Staff Station still does not recognize the item ID, restart the Intelligent Library Controller software. See "Restarting the Intelligent Library Controller program" on page 12-8.

   b If the LED does not blink green, power off the Staff Station Reader, then power it back on. Wait approximately 30 seconds while the software initializes.

3 Scan the item again.

4 If the item ID still is not recognized, contact Technical Support. See "Contact Technical Support" on page 12-1.

Problem **Scanned Item Does Not Display on Monitor**

Item scanned with Barcode Reader or Staff Station Reader does not display on the monitor...

Solution

1 If the item was scanned with the Barcode Reader, check the following:

   a If the Barcode Reader has a separate power cord, check that it is connected to the Barcode Reader and plugged into a power source.

   b Check that all cable connections are secure. The Barcode Reader should be connected to Com Port 4.

   c Reader should beep when reading a barcode, and you should see the reader's light on the barcode stripes.

2 If the item was scanned with the Staff Station Reader, check the following:

   a Check that the power cord is connected to the Staff Station Reader and plugged into a power source.

   b Check that all cable connections are secure. The Staff Station Reader should be connected to the Keyboard Wedge, which is then connected to Com Port 3.

3 Scan the item again.

4 If the problem persists:

   a Disconnect the power to the Barcode Reader.

   b Disconnect the power to the Staff Station Reader.

   c Reconnect the power to the Barcode Reader.

   d Reconnect the power to the Staff Station Reader.

5 Scan the item again.

6 If the item ID still does not display, contact Technical Support. See "Contact Technical Support" on page 12-1.

Recovery Procedures

You were directed to this section from another Troubleshooting scenario. Follow the steps outlined in the section to which you were directed, then return to the Troubleshooting scenario from which you came.

Restarting the Self-Checkout Station

1 Disconnect power to the Self-Checkout Station using the power switch at the rear of the case.

2 Wait approximately 10 seconds, then reconnect power to the Self-Checkout Station.

3 Allow the scandisk program to run until it finishes. This could take several minutes.

4 All necessary applications will start automatically.

5 Return to the Troubleshooting scenario from which you came.

Restarting the Complete System

1 Power off the Self-Checkout Station using the power switch at the rear of the case.

2 Shut down the Intelligent Library Controller software by selecting its Shutdown icon on the Windows Task Bar. Click **Shutdown**.

3 If error messages display, close them by clicking **Abort, OK,** or **Cancel**.

4 Click **Start > Shutdown** to shut down the Application Server.

5 After the Application Server reboots, power on the Self-Checkout Stations. All other necessary applications start automatically.

6 Return to the Troubleshooting scenario from which you came.

Restarting the Intelligent Library Controller program

1 At least one Self-Checkout Station must be running.

2 Shutdown the Intelligent Library Controller software by selecting its icon on the Windows Task Bar. Click **Shutdown**.

3 If error messages display, close them by clicking **Abort, OK**, or **Cancel**.

4 The Intelligent Library Controller software will be launched automatically.

5 If the program does not start within one minute, start the Intelligent Library Controller software by selecting **Start > Programs > RFID**.

6 Return to the Troubleshooting scenario from which you came.

CheckVIEW Troubleshooting

If you encounter issues in using the CheckVIEW software, refer to the following solutions for possible answers.

Problem **I have installed the CheckVIEW software, but I still cannot connect to the Self-Checkout Station.**

Solution 1 - IP Address used on Staff computer

Ensure that the IP Address assigned in the Settings.xml file matches the IP Address used by the Self-Checkout Station.

1 Launch Windows Explorer and navigate to **C:\Program Files\Checkpoint Systems\ CheckVIEW Monitor**.

2 Open the **Settings.xml** file with Notepad.

    a Right-mouse click **Settings.xml**.

    b Select **Open With...** and choose **Notepad** from the list of programs.

3 Search for the IP address of Self-Checkout Station being used. Ensure that the IP address used matches the IP address of the Self-Checkout Station.

Sample Settings.XML of CheckVIEW for Self-Checkout Station 1

Sample TCP/IP Properties of a computer

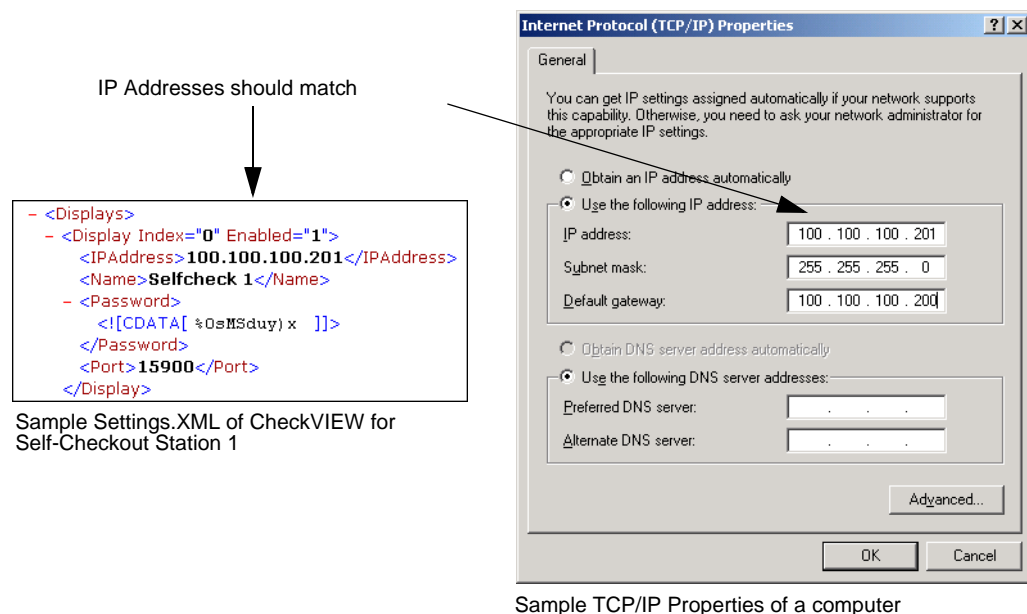**Figure 12.1** Sample TCP/IP Settings

4 Close the Settings.xml file to save your changes.

Solution 2 - Correct default settings on Self-Checkout Station

You can also ensure that the Default Settings on the Self-Checkout Station are correct. Access the VNC Server Settings, as seen in Figure 12.2, by:

1 Either attach a keyboard or access the Self-Checkout Station using PcAnywhere.

Click **Start > All Programs > UltraVNC > Ultr@VNC Server > Show Default
Settings**. The Default Local System Properties window displays.
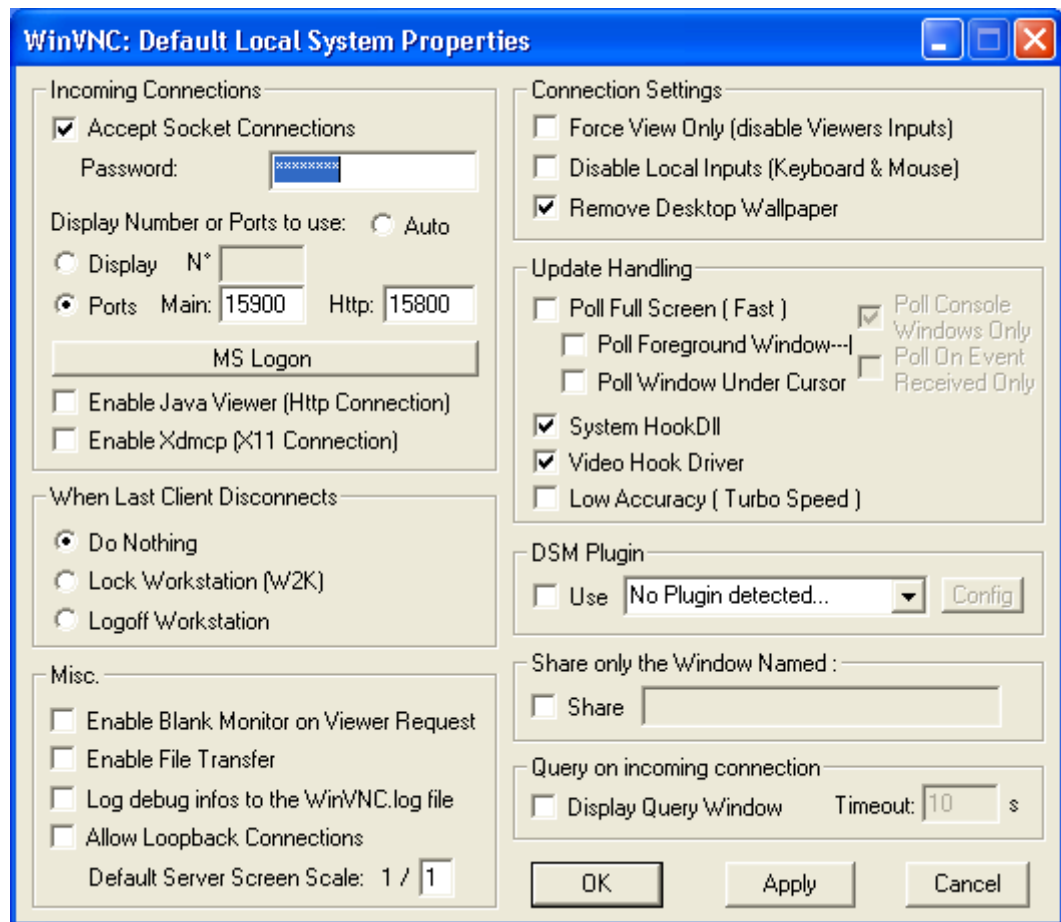

Figure 12.2 VNC Server Settings

2 Verify that:

- Accept Socket Connections is checked
- Password is **checkpt**
- Display Number is **10000**
- Auto is deselected
- Enable Java Viewer is deselected

3 Click **OK** to save and close the window.
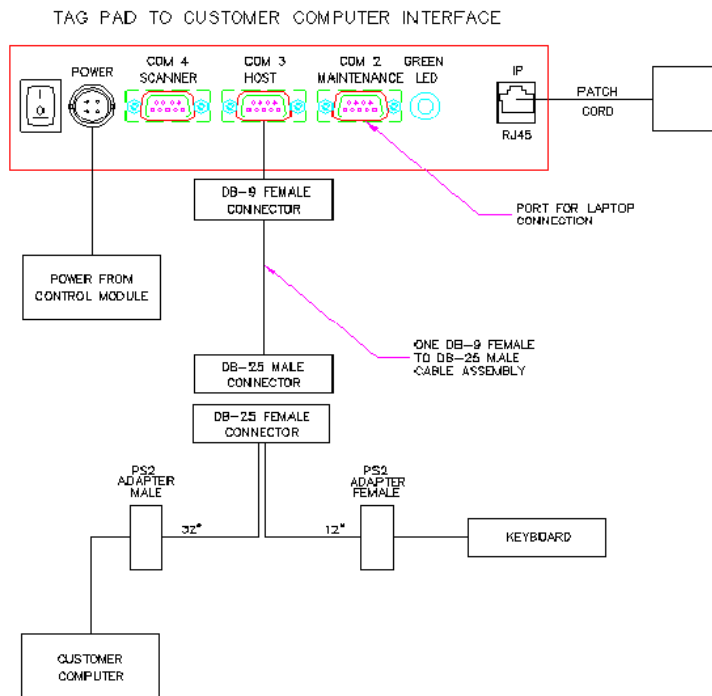
System Connection Diagram

Figure 12.3 System Connection Diagram

Notes

C H A P T E R

13

SYSTEM MAINTENANCE

This chapter describes how to perform system maintenance tasks for the Intelligent Library Controller and other components of the ILS. It also provides safety information and system specifications.

Intelligent Library Controller System Maintenance

Intelligent Library Controller maintenance tasks include:

- Maintaining the transaction database (page 13-2)

    - Synchronizing offline transactions (page 13-3)

    - Backing up the transaction database (page 13-4)

    - Purging the transaction database (page 13-5)

    - Compacting the transaction database (page 13-7)

    - Rebooting the Application Server (page 13-8)

      The transaction database tasks listed above must be performed as a group, and in a certain order. The purge and compact tasks must be performed only during non-circulation hours.

- Shutting down the Patron Self-Checkout stations (page 13-9)

- Shutting down the Intelligent Library Controller software (page 13-10)

- Backing up the Application Server (page 13-11)

- Loading paper into the Patron Self-Checkout Station printer (page 13-13)

Transaction Database Maintenance

The transaction database size cannot exceed 1 GB. If 1 GB maximum limit is reached, no new data will be written to the database, the application server will log errors continuously, and database behavior becomes unpredictable. In fact, if the transaction database is allowed to reach a size of 500 MB, system performance suffers. To avoid this constraint, you can purge the transaction database. However, there are a number of preliminary and subsequent steps included in the task of purging the transaction database, including:

1 Synchronize offline transactions, if this feature is enabled. Offline processing allows you to continue check-in and checkout tasks, even if the Library Management System (LMS) is offline. You perform this task first so that offline transactions are included in the transaction database. See "Synchronize Offline Transactions" on page 13-3.

2 Make a copy of the transaction database, so that you have an archive of the transactions, in case the purge process fails or is interrupted. See "Backup Transaction Database" on page 13-4.

3 Purge the transaction database. You use the Purge function to mark transaction database records for deletion. This function does not remove rows from the database, so physical disk space is still allocated and used. **Perform this function only during non-circulation hours.** See "Purge the Transaction Database" on page 13-5.

4 Compact the transaction database. To physically remove the deleted records and reduce the size of the database, you must compact the database. **Perform this function only during non-circulation hours.** See "Compact the Transaction Database" on page 13-7.

5 Checkpoint Systems recommends that you then reboot the Intelligent Library Controller. See "Reboot the Application Server" on page 13-8.

Synchronize Offline Transactions

If offline processing is enabled at your site, it allows you to continue check-in and checkout tasks when the LMS is offline. You use the Offline Synchronize function to move offline transactions into the transaction database when the LMS comes back online.

✎ Note   You must synchronize offline transactions each time the LMS goes offline and then comes back online.

To synchronize offline transactions:

1 In the Intelligent Library System Control window, select **Maintenance > Transaction Coordinator > Offline Synchronize**. (If the Offline Synchronize option is grayed out, skip to "Backup Transaction Database" on page 13-4.)
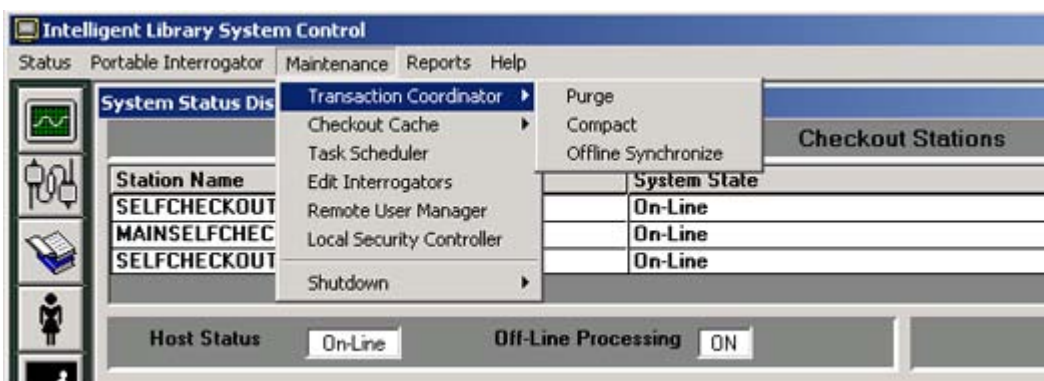

Figure 13.1 Transaction Coordinator Offline Synchronization Navigation

2 Run a Checkout Discrepancy Report (See "Checkout Discrepancy Report" on page 2-14) and a Patron Discrepancy Report (See "Patron Discrepancy Report" on page 2-15). Resolve any discrepancies through the Library Management System. They cannot be resolved using the Intelligent Library System Open Plus.

3 Go to the next step, "Backup Transaction Database", which follows this section.

Backup Transaction Database

Before purging the transaction database, make a copy of it, so that you have an archive of the transactions, in case the purge process fails or is interrupted.

Before performing this task, you should have synchronized offline transactions (if offline processing is enabled at your site). See "Synchronize Offline Transactions" on page 13-3.

The location of the Transaction database varies depending on the directory chosen for installation of the ILS software. The base directory for the ILS software is usually **C:\RFID**. The Transaction database file is always located at **RFID\Applications\DB\TransCoord\transaction.mdb**.

To create a backup copy of the transaction database:

1 Right-click **Start** and select **Explore** to open Windows Explorer.

2 Navigate to the **RFID\Applications\DB\TransCoord** directory.

3 Right-click **transaction.mdb** and select **Copy**.

4 Navigate to the folder where you want to store the backup copy.

5 Right-click the **white space** within that folder's file listing and select **Paste**.

6 After the file is pasted into the directory, rename the backup file. Highlight the file name and press **F2**.

7 Type the new name of the backup file. Be sure to retain the **.mdb** extension. Press **Enter**.

8 Go to the next step, "Purge the Transaction Database", which follows this section.

Purge the Transaction Database

⚠️ Warning The Purge and Compact functions can cause unpredictable behavior or cause the system to go offline if used inappropriately. Only qualified system administrators should use these functions. Perform these functions only during non-circulation hours.

To determine how often to purge the transaction database, Checkpoint Systems recommends monitoring the size of the transaction database daily (or weekly) for several days (or weeks) and using the data gathered to estimate how often to purge the transaction database.

Purging and compacting the transaction database functions should be performed as a unit. After purging the transaction database, always compact the transaction database.

Before performing this task, you should have performed the following tasks:

1 Synchronize offline transactions, if offline processing is enabled at your site ("Synchronize Offline Transactions" on page 13-3)

2 Backup the transaction database ("Backup Transaction Database" on page 13-4)

To purge the transaction database:

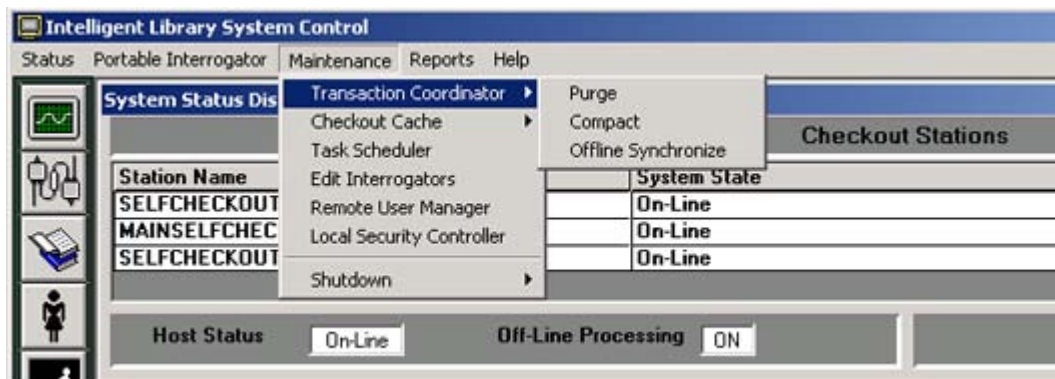**1** In the Intelligent Library System Control window, select **Maintenance > Transaction Coordinator > Purge**.

Figure 13.2 Purge Navigation

2 Enter the ILS user name and password in the ILS Login window. The default user name is **ils**, and the default password is **maint**. Click **OK**.

3 During the purge operation, a progress indicator displays to show you how much of the purge has been completed and how much remains.
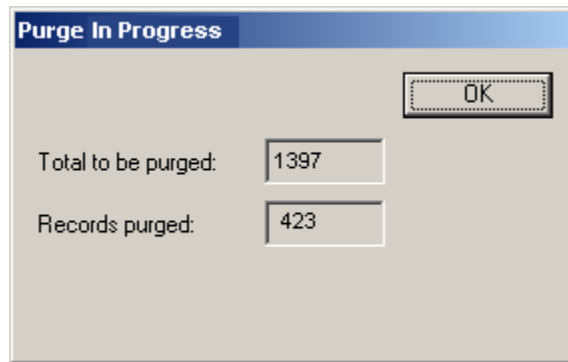

Figure 13.3 Purge Progress Indicator display

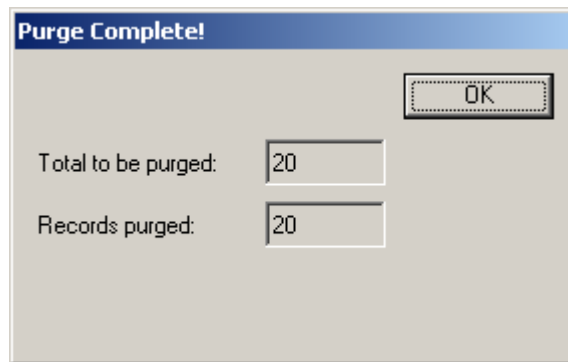When the purge is finished, the End Purge message box displays.

Figure 13.4 End Purge message box

4 Go to the next step, "Compact the Transaction Database", which follows this section.

Compact the Transaction Database

⚠ Warning   The Purge and Compact functions can cause unpredictable behavior or cause the system to go offline if used inappropriately. Only qualified system administrators should use these functions. **Perform these functions only during non-circulation hours.**

To physically remove the deleted records and reduce the size of the transaction database, you must compact it.

Purging and compacting the transaction database functions should be performed as a unit. After purging the transaction database, always compact the transaction database.

Before performing this task, you should have performed the following tasks:

1   Synchronize offline transactions, if offline processing is enabled at your site ("Synchronize Offline Transactions" on page 13-3)

2   Backup the transaction database ("Backup Transaction Database" on page 13-4)

3   Purge the transaction database ("Purge the Transaction Database" on page 13-5)

To compact the transaction database:

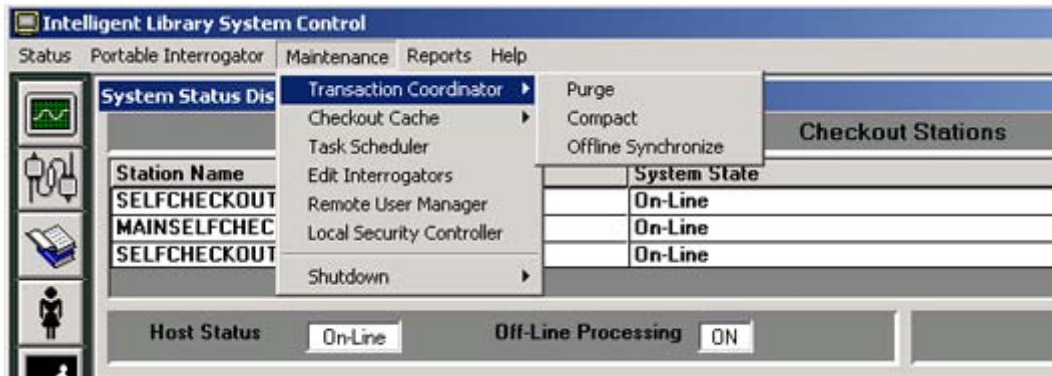1   In the Intelligent Library System Control window, select **Maintenance > Transaction Coordinator > Compact**.

Figure 13.5 Compact Navigation

2   Enter the ILS user name and password in the ILS Login window. The default user name is **ils**, and the default password is **maint**. Click **OK**.

3   When the compact function is finished, a message box displays.

Figure 13.6 End Compact message box

4   Go to the next step, "Reboot the Application Server", which follows this section.

Reboot the Application Server

After purging and compacting the transaction database, Checkpoint Systems recommends that you reboot the Application Server.

Before performing this task, you should have performed the following tasks:

1 Synchronize offline transactions, if offline processing is enabled at your site ("Synchronize Offline Transactions" on page 13-3)

2 Backup the transaction database ("Backup Transaction Database" on page 13-4)

3 Purge the transaction database ("Purge the Transaction Database" on page 13-5)

4 Compact the transaction database ("Compact the Transaction Database" on page 13-7)

To reboot the Application Server:

1 Shut down all Patron Self-Checkout stations. See "Shutdown Patron Self-Checkout Stations" on page 13-9.

2 Shut down the Intelligent Library Controller software. See "Shutdown the Intelligent Library Controller Software" on page 13-10.

3 Click **Start > Shutdown** to shut down the Application Server.

Shutdown Patron Self-Checkout Stations

Before rebooting the Intelligent Library Controller, you must shut down the Patron Self-Checkout Stations. To shut down the Patron Self-Checkout Stations:

1 In the Intelligent Library System Control window, select **Maintenance > Shutdown > Self Check Stations**.

Figure 13.7 Shutdown Patron Self-Checkout Station

2 Enter the ILS user name and password in the ILS Login window. The default user name is **ils**, and the default password is **maint**. Click **OK**.
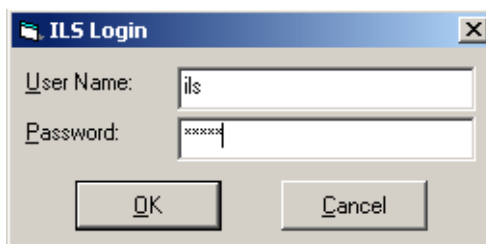

Figure 13.8 ILS Login window

3 In the Self Check Shutdown window, click **Yes** to perform the shutdown. Click **No** to cancel the shutdown of the Self-Checkout Station.
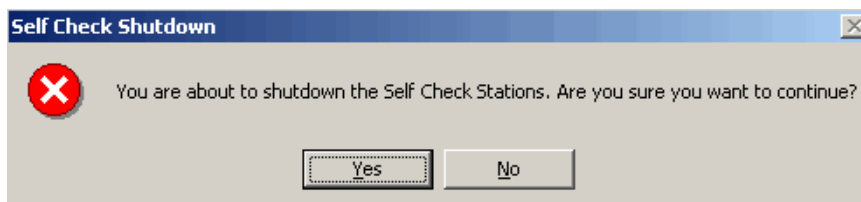

Figure 13.9 Self Check Shutdown window

Shutdown the Intelligent Library Controller Software

To shut down the Intelligent Library Controller software:

1 Be sure that all Patron Self-Checkout Stations are shut down. See "Shutdown Patron Self-Checkout Stations" on page 13-9.

2 In the Intelligent Library System Control window, select **Maintenance > Shutdown > AppServer**.
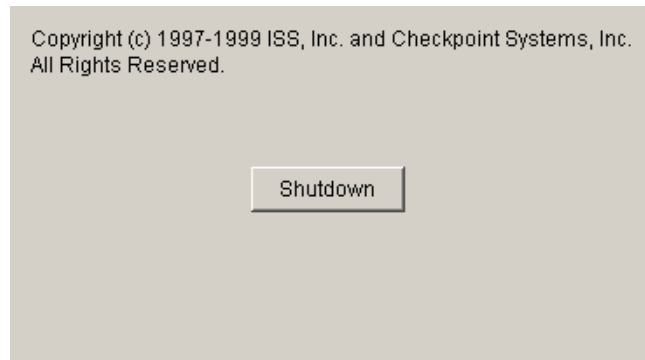
3 Click **Shutdown**.

Figure 13.10 Shutdown Button

Backup the Application Server

This section describes how to back up all files on the Application Server and how to restore them, as needed. Before you can perform the backup, you must exit the Intelligent Library Controller application.

Checkpoint Systems recommends that you **do not** use the Application Server's hard drive as your backup medium.

Backup

1 Shut down the Patron Self-Checkout stations. See "Shutdown Patron Self-Checkout Stations" on page 13-9.

2 Exit the Intelligent Library Controller application.

3 To launch the Windows backup utility, select **Start > Programs >Accessories > System Tools > Backup**.

4 Click on the **Backup** tab. (If you would rather use the Backup Wizard to perform the backup, click the Backup Wizard button and follow its directions.)
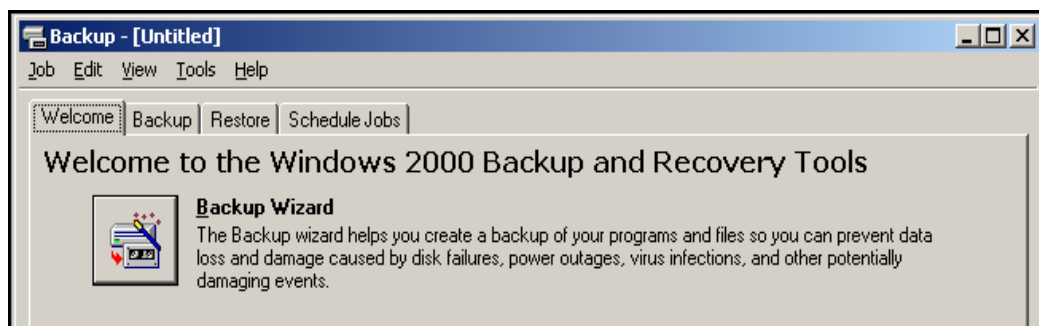

Figure 13.11 Backup window

5 Select the **drives** and/or **directories** that you want to back up.

   a The directory required to restore the Intelligent Library System Open Plus is E:\RFID.

   b Select any other applications used at your site to communicate between the LMS and the ILS.

6 Click **Start Backup**. Respond to prompts as they appear. See the MicroSoft Windows Help for detailed instructions for using the Backup Utility.
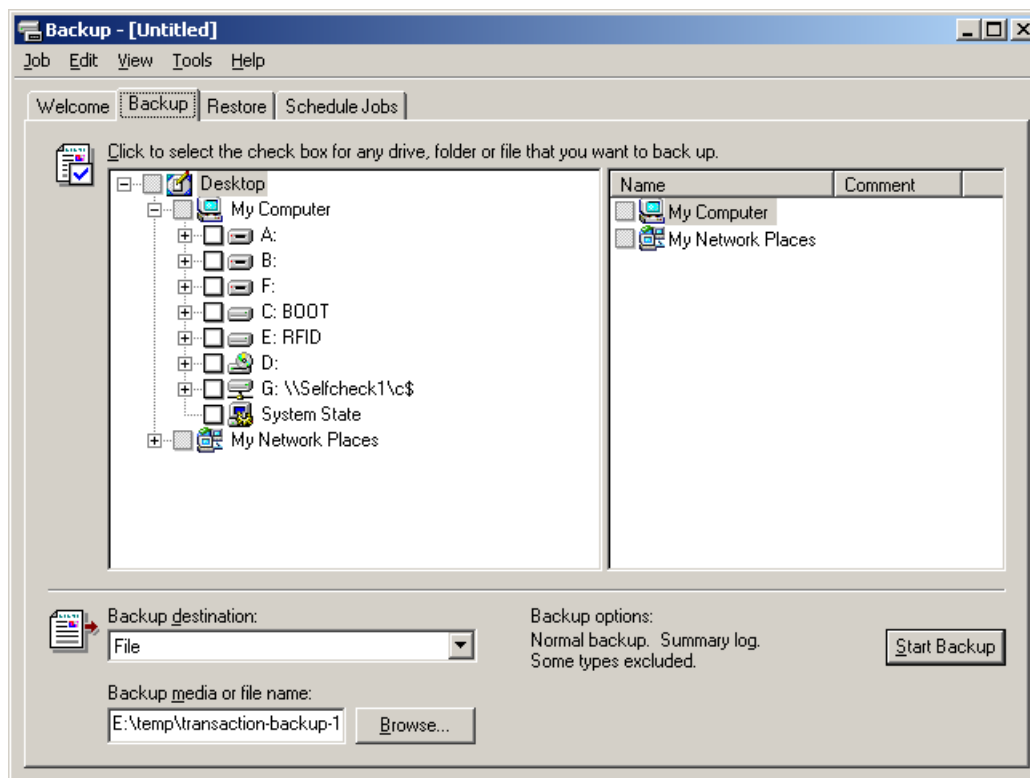

Figure 13.12 Backup tab

Restore

Restoring files from a backup tape can take a long time.

1 Follow steps 1 through 3 from the Backup instructions.

2 To restore individual files from a backup set on a tape, select the Tapes window, then load the catalog of the backup set from which you want to restore certain files.

If the catalog of backup files is not visible, you may have to create a new one. See the Microsoft Windows Help for instructions.

3 Select all the files you want to restore using the appropriate method:

a To select contiguous files, click the first filename, hold down SHIFT, and click the last contiguous filename.

b To select non-contiguous files, click a filename, hold down CTRL, and click each filename.

c On the Select menu, click **Check**. A check mark displays in the check box for each selected file.

4 On the Operations menu, click **Restore**.

Load Paper into Patron Self-Checkout Station Printer

⚠ WARNING   **Protect Yourself From Injury**

Do not touch the cutter blade *

There is a sharp cutter blade inside the paper outlet slot. Do not put your hand in the paper outlet slot when changing paper or while printing is in progress.

Use the following procedure to reload the paper in the Self-Checkout Station.

1 Lift to remove the printer access cover from the top of Self-Checkout Station chassis. You will see the printer unit (shown below) through the opening.
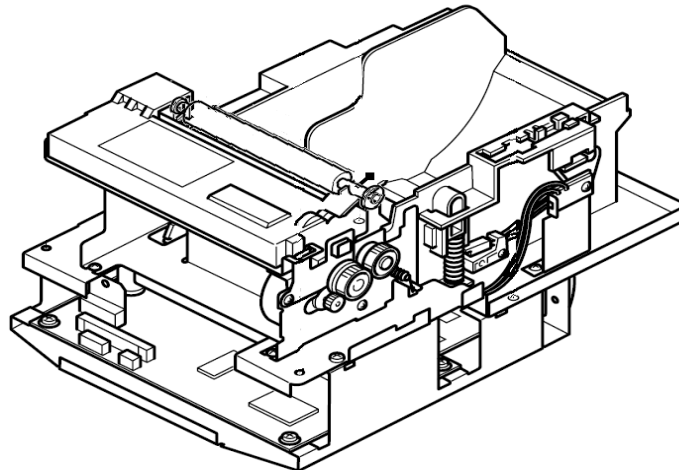

Figure 13.13 Self-Checkout Station Printer

2 Pull the bar release lever (top right) towards you to release the paper roller bar assembly.

3 Lift the paper roller bar assembly all the way up until it rests back in the open position.

4 Remove the used paper roll core from the printer and discard it.

5 Remove the tab on the new paper roll.

6 Set the new paper roll into the printer, and pull on the leading edge of the paper from the bottom toward you (as shown below)
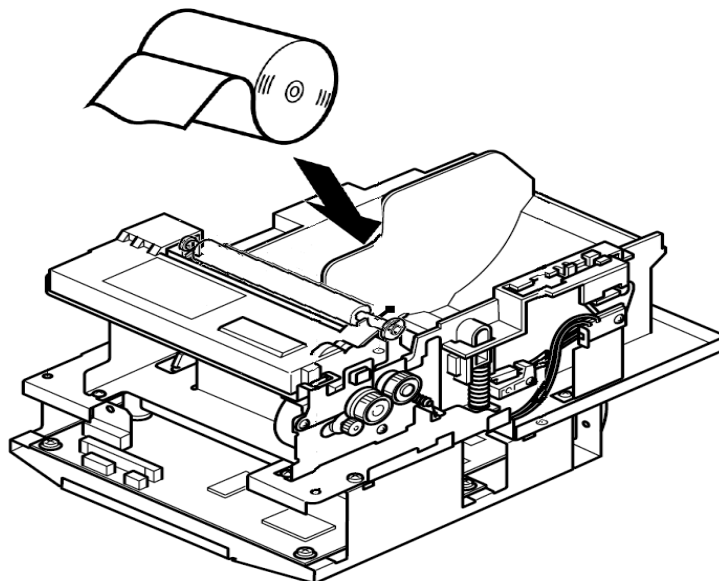

Figure 13.14 Self-Checkout Station Printer - New Roll Installation

7 Make sure there is enough excess paper so that approximately 1/8" of paper is coming through when you close the paper roller bar assembly.

8 Close the paper roller bar assembly by pushing it down until it snaps closed securely.

9 As soon as you close the paper roller bar assembly, the paper will automatically feed and cut off the end of the paper.

10 Remove and discard the excess piece of paper that was cut off in the previous step.

11 Replace the printer access cover, and push down to secure it to the unit with the hook and loop fasteners.

✐ Note   The paper will feed through the small slit opening in the printer access cover during self checkout transactions.

Safety Warnings

Barcode Scanner:

LASAR RADIATION

RISK TO EYES - **DO NOT STARE INTO BEAM**

CLASS 2 LASER PRODUCT

Figure 13.15 Laser Radiation Icon

See the Metrologic Instruments IS 4110 and IS4120 ScanQuest® Laser Scan Engine Installation and User's Guide on other Safety instructions, warnings and technical specifications.

Specifications

Mechanical

Dimensions: 29" L x 20.75" W x 6.25" H

(736.60 mm x 527.05 mm x 158.75 mm)

Weight: 26 lbs. (9.7 kg)

Materials: Acrylic / PVC alloy

Monitor: See the Planar PT1503NT User's Manual.

Electrical

Emissions: FCC Part 15, RSS 210, ETSI 300 330 Compliant

Immunity: ETSI 301489 Compliant

RF Transmit Frequency: 13.56 MHz

Demodulation type: AM

Read range: Up to 10" with a 2.1" x 2.1" Circulation Circuit®

Console Power Requirements: 24 VDC, 50-60 Hz, 1.6 A

Safety: Requires dedicated circuit to prevent power surges and spikes from damaging the system. Requires power strip with power and modern surge protection. UL/cUL 60950-1 compliant.

Interfaces

Diagnostics: RS-232

Host: IEEE 802.3, 10 Base-T Ethernet, NE 2000 Compatible Read range

Peripherals

Monitor: Touch Screen 15" flat screen - standard

Printer: Star Micronics TSP 600 Series (643C)

Patron Card Reader (standard): Metrologic IS 4120

Power Supply: 90-264 VAC, 47 - 63 Hz IEC input, 24 VDC @ 4A output, UL Listed

Environmental

Operating temperature: 32 degrees F to 104 degrees F (0 degrees C to 40 degrees C)

Storage Temperature: -22 degrees to 140 degrees F (-30 degrees C to 60 degrees C)

Storage/operating humidity: 5% to 95%, non-condensing

Tag Compatibility: RFID Based Circulation Circuit