
Software Requirements Specification

for the

Global Requirements

of an

Integrated Library System

Version 2.0 final

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Revision History

Name	Date	Reason For Changes	Version
Lucien Kress	11/17/08	Initial Draft	1.0 draft
Lucien Kress	1/28/09	Revisions, Final	2.0 final

1. Introduction

1.1 Purpose and Perspective

This Software Requirements Specification (SRS) describes the global requirements of an Integrated Library System (ILS). The requirements were developed specifically for King County Library System, but are believed to be suitable for many large, urban, multiple-branch, centralized library systems.

This SRS includes only those requirements that were judged to span two or more modules of an ILS. There are separate SRS documents for requirements that are primarily related to one module. The modules for which separate SRS documents exist include: Acquisitions and Serials; Cataloging and Processing; Circulation; Outreach; Interlibrary Loan; Management Tools; Web Services and OPAC; System Interfaces; and System Administration.

Most of the requirements in this document originated from work in a specific module; as additional work revealed that a requirement applied to multiple modules, the requirement was moved into the Global category. The initial source of the requirement is included in the text of requirement, for auditing purposes.

The requirements in this SRS presuppose the general data structures and functionality of a full-fledged ILS. The ILS will replace and enhance the current capabilities of commercially available ILSes, as well as add new functionality.

1.2 Product Scope and Features

The Global Requirements support all aspects of the Integrated Library System. Specifically, the Global Requirements support the following modules:

- Acquisitions and Serials Management
- Cataloging and Processing
- Circulation
- Outreach
- Interlibrary Loan
- Management Tools
- Web Services and Online Public Access Catalog
- System Interfaces
- System Administration

The current specification presupposes the general functionality of an ILS and specifies only those requirements that are considered to be global to the system. Requirements that are primarily or specifically related to an individual module can be found in separate SRS documents.

Moreover, the current specification is focused on functional characteristics. Data structures and user interfaces will require further specification and development using an iterative, prototype-oriented software development methodology.

1.3 Intended Audience

This SRS is intended both for library managers and staff who may contribute additional requirements or commentary, and for software project managers and developers who will implement the requirements. As such, it aims for a high level of readability for a non-technical audience, while providing enough specificity to be useful to a software developer.

It is assumed that when software development occurs, it will be in a highly collaborative and iterative environment in which end-users have multiple opportunities to review prototypes and refine the user interface and software functionality.

It is also assumed that the reader has a general understanding of Library services and processes and does not require definition of common Library terminology.

1.4 Document Conventions

The SRS includes requirements. Requirements include a reference to a process flowchart where appropriate. Flowcharts generally indicate the current workflow in use at King County Library System, and should be considered to give contextual information rather than to prescribe or constrain new software development.

1.5 User Classes and Characteristics

Patron	A Patron is a customer of King County Library System, either possessing a library card or not, either on site of a community library or not, using either print materials, media materials, or electronic resources.
Staff	Staff include managers, librarians, library technicians, library assistants, and library pages who are involved in designing and providing services for the Library.
System Administrators Managers	System Administrators include staff with responsibility for managing servers, databases, applications, services, ports, and APIs related to the ILS. Managers include management staff who oversee Library processes.
Library Managers	Library Managers include Cluster and Site Managers who provide input to the design and implementation of Library services.
Library Directors	Library Directors include members of the Library Executive Team who plan and direct Library services and priorities.

1.6 Operating Environment

- OE-1: Global Requirements support the needs of a large, multiple-branch library system. Specifically, the system must support a library system with 50 locations, 20 million circulations, purchasing and processing over 500,000 items per year. It is highly desirable that searches and reports can be processed during open hours without disrupting other system functions.
- OE-2: The processes and functions described here shall operate on a Linux or Solaris server.

- OE-3: The processes and functions described here shall be accessible through a web-browser or a Windows-compatible client.
- OE-4: If web-browser based, the processes and functions described here shall be accessible through Microsoft Internet Explorer (v.6.0 and later) and Mozilla Firefox (v.2.0 and later).
- OE-5: The processes and functions described here shall be accessible with screen-reading software, screen-magnification software, and other software programs designed to increase accessibility.

1.7 Design and Implementation Constraints

- CO-1: The processes and functions described here shall use a fully relational database back-end.
- CO-2: The processes and functions described here shall produce standards-compliant HTML.
- CO-3: The processes and functions described here shall provide a development and training environment with the ability to migrate configurations to a production environment.
- CO-4: User rights and privileges will be controlled through security groups and/or “roles” that allow access control for individuals, workgroups, and arbitrary staff groups.

1.8 User Documentation

- UD-1: The software developer shall provide complete data specifications for authority records, bibliographic records, order records, item records, hold/request records, and other records maintained or accessed by the processes and functions described here.
- UD-2: The software developer shall provide a thorough high-level description of major processes, including bibliographic record import and export, validation of bibliographic records against internal and external authority sources, and standard reports.
- UD-3: The system shall provide an online, hierarchical, and cross-linked help system in HTML that describes and illustrates all system functions.

1.9 Assumptions and Dependencies

- AS-1: The processes and functions described here are part of an enterprise-level Library Automation System.
- AS-2: The processes and functions described here are consolidated at a central location, and accept input and provide services to multiple locations.
- DE-1: The processes and functions described here rely on the data structures and functionality of an enterprise-level Library Automation System, including Acquisitions, Cataloging, and Circulation modules.
- DE-2: The processes and functions described here interface with a variety of vendor websites, via published APIs and/or automated transfer of standard-format data files (e.g. USMARC21, EDIFACT).
- DE-3: The processes and functions described here interact with a patron interface, also known as an Online Public Access Catalog (OPAC).

2. System Requirements

Category: Global Requirements: General

Req ID: 6512 **Source:** ITS **Priority:** 3
Name: SQL-based database
Description: System runs on a fully relational, SQL-based database system. Ability to run SQL queries against any table in the database. Ability to access database as an ODBC source. All data tables and data storage are fully accessible.

Related Reqs: 2456 2475 **Related Process**

Req ID: 2492 **Source:** ACQ **Priority:** 2
Name: individual and shared staff login accounts
Description: Support for individual and shared staff login accounts; access to modules is granted by use of "roles" or "privileges" that allow each account to access as many (or as few) modules as needed. Individual logins allow user-level preferences and audit trail.

Related Reqs: 5514 **Related Process**

Req ID: 5616 **Source:** MGT **Priority:** 3
Name: streamlined staff login
Description: The system supports (but does not require) streamlined staff login methods, for example staff member swipes a card to log into a terminal.

Related Reqs: **Related Process**

Req ID: 5408 **Source:** CIR **Priority:** 3
Name: patron-selected username
Description: System provides option for patron to select a username and password, which can then be used to access OPAC, self check-out station, online databases, public PC booking system, and other electronic resources. In every case where patron authentication occurs, patrons can enter either a patron barcode or a username, and a password, and the system will handle authentication transparently.

Related Reqs: **Related Process**

Req ID:	1959	Source:	CIR	Priority:	2
Name:	patron password (PIN)				
Description:	Patron passwords are alphanumeric; numeric-only passwords are allowed. Library may set minimum and maximum limits on password length.				
	Related Reqs:		Related Process		

Req ID:	2039	Source:	CIR	Priority:	3
Name:	patron pin override				
Description:	Staff are able to assist patrons with functions that require a PIN. System provides a way to authenticate a patron PIN from the staff interface. System provides the possibility for patrons of specified patron type (e.g. Outreach patrons) to have a second PIN, visible to staff. Staff can reset PINs.				
	Related Reqs:		Related Process		

Req ID:	7010	Source:	WEB	Priority:	3
Name:	staff access to patron functions				
Description:	Staff can perform actions on behalf of patrons, such as placing holds, checking availability, etc., without logging out of staff accounts or changing current view. For example, from a search results screen, staff can select one or more items and place a hold for a specific patron, without leaving the current window. In cases where the action requires displaying additional information, a new window is opened and the staff person returns to the original window when done.				
	Related Reqs:	5264	Related Process		

Req ID:	5615	Source:	MGT	Priority:	3
Name:	real-time processing				
Description:	The system provides real-time processing. For example: pull lists are up to date at time of viewing or printing; system supports live shelf reading and weeding.				
	Related Reqs:		Related Process		

Req ID: 2154

Source: ACQ

Priority: 3

Name: transactions post in real time

Description: All transactions post in real time: including purchase orders, invoices, fund balances, vendor balances, vendor statistics and history, etc.

Related Reqs:

Related Process INV011

Category: Global Requirements: Interfaces

Req ID: 6026	Source: INT	Priority: 3
Name: transactional communication		
Description: System supports transactional communication with external services, for example providing APIs to read and update patron records, bibliographic records, item records, etc.		
Related Reqs: 2438 1636		Related Process
Req ID: 1636	Source: INT	Priority: 3
Name: SIP2 and NCIP2 support		
Description: System supports SIP2 and NCIP2 for interfacing with external applications. Support standard SIP2 and NCIP2 messages, and provide capacity for adding additional messages as formats evolves.		
Related Reqs: 6026		Related Process
Req ID: 6123	Source: INT	Priority: 3
Name: SIP2 emulator support		
Description: System supports 3M SIP2 emulator.		
Related Reqs:		Related Process
Req ID: 2438	Source: ITS	Priority: 3
Name: patron API		
Description: System provides a well-documented Patron API, for interfacing with external applications. System receives either a username, a barcode or a record number, and optionally either a PIN or a password. System returns an error code and patron information, if available. Error codes include: valid patron (no PIN or password provided), valid patron and valid PIN or password; valid patron and invalid PIN or password; invalid patron. Patron information includes at least: patron username, patron barcode, patron record number, patron type, name, address, phone, birthdate, creation date, last updated date, last use date, last electronic use date, expiration date, account balance, number of items checked out, number of items on hold, blocks, collections blocks.		
Related Reqs: 6026		Related Process

Req ID: 7219	Source: WEB	Priority: 3
Name: OpenURL support		
Description: System supports OpenURL (ANSI Z39.88).		
Related Reqs:		Related Process

Req ID: 5010	Source: INT	Priority: 3
Name: integration with automated materials handling system		
Description: Full integration with Automated Materials Handling System (AMH) via SIP2/NCIP2, including ability to change all status types to checked-in status. Materials handling via SIP should result in exactly the same results as manual processes. SIP2 messages currently used by AMH include 09, 10, 11, 12, 17, 18, 63, and 64.		
Related Reqs:		Related Process

Req ID: 1716	Source: CAP	Priority: 3
Name: MARC import/export		
Description: MARC bibliographic and authority records can be imported and exported, singly and in batch, all fields or selected fields, to and from vendors including OCLC. Imported records can overlay existing short or full bibliographic records. Imported batches can be maintained and manipulated as selection lists (see REQ-3004).		
Related Reqs: 3004		Related Process CAT180

Category: Global Requirements: Business Rules

Req ID: 5278 **Source:** CIR **Priority:** 3**Name:** suppression rules**Description:** System provides customizable 'Rules of Suppression' that specify whether patrons and staff can view authority, bibliographic, order, and item records in staff and public (OPAC) interfaces. Records may be visible to specific workgroups only; to all staff and patrons at specific locations; or to all staff and all patrons. (See REQ-5057 for related requirements on loan rules, and REQ-5190 for related requirements on holdability.)**Related Reqs:** 5057 5190 580 **Related Process** CAT180

Req ID: 5190 **Source:** CIR **Priority:** 3**Name:** requesting rules**Description:** System allows creation and modification of requesting rules that determine whether a patron can place a hold on an item. Requesting rules may evaluate patron type, current number of holds, current patron account balance, item type, item status, owning location code, and other criteria. For example, requesting rules may prohibit patrons from placing holds on on-order CD titles, but allow patrons to place holds on other on-order titles. Requesting rules also specify whether staff with specific privileges or roles can override specific criteria. (See REQ-5057 re loan rules, REQ-5278 re visibility.)**Related Reqs:** 5057 5278 **Related Process** HOL-011

Req ID: 5057

Source: CIR

Priority: 3

Name: loan rules

Description: System allows creation and modification of loan rules that allow or disallow check-out of items, calculate loan periods, and determine renewal limits. Loan rules may evaluate patron type, current number of items checked out, current patron account balance, item type, item status, owning location code, check-out location code, and other criteria. For example, loan rules may prohibit patrons from checking out items with an unavailable status, e.g. an item with a triggered hold for another patron or an item that is already checked out to another patron. Loan rules can access check-out location open/closed schedule in calculating due date. Loan rules also specify whether a specific criteria may be overridden by staff with specific privileges or roles. (Also see REQ-5190 re requesting rules.)

Related Reqs: 5190

Related Process: HOL-131

Category: Global Requirements: Data Characteristics

Req ID: 5323	Source: CIR	Priority: 3
Name: field and record sharing		
Description: Ability for multiple staff members and patrons to simultaneously access and update patron and item records, including on staff check-in and check-out terminals, on self check-out stations, through SIP2/NCIP2 and similar protocols and APIs, and in OPAC. Depending on assigned privileges, staff can view all patron and item fields; patrons can access only selected fields. Record changes are applied in a reasonable way, with prompts to warn when a record has been changed since it was displayed.		
Related Reqs:		Related Process
Req ID: 6513	Source: ITS	Priority: 3
Name: record lock management		
Description: For any patron record or item record, staff can identify where it is in use (location, user, date and time placed).		
Related Reqs: 6501 7302		Related Process
Req ID: 5399	Source: CIR	Priority: 3
Name: date format		
Description: Date format is set in system parameters, and used consistently throughout system.		
Related Reqs:		Related Process
Req ID: 2275	Source: CAP	Priority: 3
Name: item location codes in separate fields		
Description: Provide separate fields for branch identification, reading level (e.g. adult, juvenile) and shelving location (e.g. fiction, DVD).		
Related Reqs: 2274		Related Process

Req ID:	2204	Source:	ACQ	Priority:	3
Name:	unlimited number of temporary record sets				
Description:	Unlimited number of temporary record sets (aka buckets, query result sets, selection lists, etc.). Record sets can be the basis for batch field updates or for deleting original records; can be used as a limiting scope for subsequent queries; and can be exported.				
	Related Reqs:	1712	Related Process		

Req ID:	2143	Source:	SER	Priority:	2
Name:	unlimited items per bibliographic record				
Description:	Ability to add unlimited items to a single bibliographic record. For example, this is important for magazine titles that may comprise thousands of items per year.				
	Related Reqs:	2279, 2280, 55	Related Process		

Req ID:	1633	Source:	INT	Priority:	3
Name:	batch delete				
Description:	Ability to run mass deletions without significantly impacting system performance.				
	Related Reqs:	5540	Related Process		

Req ID:	5540	Source:	CAP	Priority:	2
Name:	delete and restore records				
Description:	Ability to delete all record types singly or via batch processing, with capability to recover or restore deleted data.				
	Related Reqs:	1633	Related Process		

Req ID:	4102	Source:	CAP	Priority:	3
Name:	barcodes				
Description:	The system must read and support barcodes as follows: 1) Read 8, 10, and 14 digit barcodes. 2) Support single and multiple barcodes. 3) Assign sequential barcodes to a number of items. 4) Support replacement barcodes. 5) Transfer one or more barcodes between bibliographic records.				
	Related Reqs:		Related Process	REC030	

Req ID: 5411	Source: CIR	Priority: 2
Name: barcodes must be unique		
Description: Item record barcodes and patron record barcodes must be unique. Alert staff when duplicate barcodes are entered, and prevent assignment of duplicate barcodes. (However, see REQ-5536 for the case of item records without barcodes.)		
Related Reqs: 5536	Related Process	

Req ID: 5328	Source: CIR	Priority: 3
Name: data validation		
Description: Ability to specify default value, data validation, automatic formatting, and required status for any field.		
Related Reqs:	Related Process	

Category: Global Requirements: Queries and Reports

Req ID: 1726	Source: CAP	Priority: 2
Name: indexing		
Description: Provide capability to create unlimited separate indexes for any data field.		
Related Reqs:		Related Process
Req ID: 2202	Source: ACQ	Priority: 3
Name: flexible queries and reports		
Description: All queries and reports include the ability to sort, filter, and limit on any variable or fixed field or subfield in any record type (bibliographic, item, order, authority). Ability to search for records that fall within a range of values. Ability to save customized queries and output criteria for future use. Ability to retrieve last X queries to repeat search and/or save query permanently.		
Related Reqs:		Related Process
Req ID: 5624	Source: MGT	Priority: 3
Name: query tool		
Description: System provides a user-friendly interface for designing queries against all record types. Staff can select fields to query; select values from picklist of possible values; select regular expressions from drop-down menu, and use a full range of Boolean operators. Administrators control staff access to tables and fields.		
Related Reqs:		Related Process
Req ID: 2306	Source: ACQ	Priority: 3
Name: wildcard searches		
Description: System supports wildcard searches and substring searches in all fields (including 'number' fields, e.g. isbn, upc, etc.).		
Related Reqs:		Related Process CAT010

Req ID: 3018	Source: WEB	Priority: 2
Name: NOT searches		
Description: Ability to search for records that do not match a search variable (e.g. NOT youth).		
Related Reqs:		Related Process CAT010

Req ID: 1704	Source: CAP	Priority: 3
Name: search results: display		
Description: Ability to customize all search result display screens, including selection of fields to display and sorting/limiting options. Ability to set preferred default displays defined by individual user logons with ability to further customize and change settings as needed.		
Related Reqs: 2271 2272 227		Related Process CAT010

Req ID: 5382	Source: CIR	Priority: 3
Name: search results: sorting		
Description: Ability to sort by any column in any list (search results, etc.).		
Related Reqs: 1704		Related Process

Req ID: 5511	Source: CAP	Priority: 3
Name: index browsing		
Description: On indexed fields, provide ability to perform an exact search with truncation, and browse related index alphabetically. Accessible to staff and patrons.		
Related Reqs:		Related Process CAT010

Req ID: 2205	Source: ACQ	Priority: 2
Name: return to search results		
Description: After searching for a record, ability to return to intermediate results (e.g. 'Back' or 'Return to List').		
Related Reqs:		Related Process CAT010

Req ID: 2322	Source: ACQ	Priority: 3
Name: run reports during business hours		
Description: Ability to run reports anytime during the day without impacting staff productivity.		
Related Reqs:		Related Process

Req ID: 5617	Source: MGT	Priority: 3
Name: reports permissions		
Description: System provides fine-grained permissions to allow or disallow staff to run specific reports, and/or to run ad hoc reports on specific sets of data.		
Related Reqs:		Related Process

Req ID: 2197	Source: ACQ	Priority: 2
Name: report format and output		
Description: Ability to fully customize layout and appearance of reports. Ability to display, print, email, or save report to standard formats including CSV and Excel, as well as to customizable formats.		
Related Reqs:		Related Process

Req ID: 2439	Source: ITS	Priority: 3
Name: multiple print output options		
Description: Ability to print to a file on the server, ftp , email, or printer from any part of the application. When applicable, the ability to select record fields and control order of fields when printing.		
Related Reqs:		Related Process

Category: Global Requirements: User Interface

Req ID: 7011	Source: WEB	Priority: 2
Name: search: interface		
Description: Search interfaces should be consistent for staff and patrons, with similar look-and-feel even when staff interfaces include additional options or features not available to patrons.		
Related Reqs:		Related Process
Req ID: 2091	Source: CIR	Priority: 3
Name: login information display		
Description: Show login identification at top of screen.		
Related Reqs:		Related Process
Req ID: 6124	Source: INT	Priority: 2
Name: suppress patron name		
Description: Ability to suppress patron name on all displays, on a per-system or per-patron basis. Patron may select option to display or mask patron name through patron account settings.		
Related Reqs:		Related Process
Req ID: 2490	Source: ACQ	Priority: 1
Name: menu options require permissions		
Description: Menu options require credentials/authorization. Menu options without correct credentials are greyed out.		
Related Reqs:		Related Process
Req ID: 5182	Source: CIR	Priority: 3
Name: customizable views		
Description: Ability to create and edit views (i.e. custom layouts) to hide fields, tabs, and command buttons that should not be used. Visible fields can be sized and ordered. Views can be assigned to users individually or via user groups or roles.		
Related Reqs:		Related Process

Req ID: 1731	Source: CAP	Priority: 3
Name: tabbing		
Description: Ability to tab through fields while creating and editing all record types (e.g. bibliographic, item, order, patron, etc.).		
Related Reqs:	Related Process CAT030	

Req ID: 5525	Source: CAP	Priority: 2
Name: URLs are clickable		
Description: URLs in bibliographic and item records are clickable, and launch in a new web-browser window when clicked.		
Related Reqs:	Related Process CAT030	

Req ID: 2276	Source: CAP	Priority: 3
Name: view and edit multiple records		
Description: Ability to view two or more records simultaneously, aligned either horizontally or vertically. Ability to copy and paste between records.		
Related Reqs: 1733	Related Process CAT030	

Req ID: 5313	Source: CIR	Priority: 3
Name: copy and paste		
Description: All screens support copy and paste.		
Related Reqs:	Related Process	

Req ID: 2220	Source: ACQ	Priority: 3
Name: keyboard macros and shortcuts		
Description: System supports administrator-programmable and user-programmable macros and/or keyboard shortcuts. Shortcut keys may be assigned to macros (e.g. 'Insert Field') or to text strings. Macros are centrally managed on server, can be imported from and exported to individual users, and can be restricted for use and/or editing through centrally-managed permissions.		
Related Reqs:	Related Process	

Req ID: 1703	Source: CAP	Priority: 3
Name: custom toolbars		
Description: Staff can create a customized toolbar of icons used for editing and cataloging functions, such as Insert Row, Delete Row.		
Related Reqs:	Related Process	

Req ID: 5216	Source: CIR	Priority: 3
Name: patron error messages		
Description: Patron error messages are specific and unambiguous. For example, if a hold request is unsuccessful, the error message should say why (hold limit reached, no available copies, etc.).		
Related Reqs: 1652 7220	Related Process	

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Revision History

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Lucien Kress	1/31/08	Initial Draft	1.0 draft
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Lucien Kress	3/07/08	Corrections by Angelina Benedetti	1.3 final

1. Introduction

1.1 Purpose and Perspective

This Software Requirements Specification (SRS) describes the functional and nonfunctional requirements for the Acquisitions Module of an Integrated Library System (ILS).

This SRS identifies requirements for an Acquisitions Module, currently under development as part of the Evergreen Library Automation System (<http://open-ils.org/>). The requirements were developed specifically for King County Library System, but are believed to be suitable for many large, urban, multiple-branch, centralized library systems.

The requirements in this SRS presuppose the general data structures and functionality of a full-fledged ILS. The Acquisitions Module will replace and enhance the current capabilities of commercially available ILSes, as well as add new functionality.

1.2 Product Scope and Features

The Acquisitions Module facilitates the selection, ordering, receiving, processing, and invoicing of print and non-print materials at the King County Library System. Specifically, the Acquisitions Module supports the following activities, among others:

- Identifying existing materials that require additional copies or licenses to satisfy demand
- Identifying subject categories and formats of materials that require additional titles to satisfy demand
- Accepting new materials requests from library staff, patrons, and vendors
- Managing, reviewing, locating, and pricing items for possible acquisition
- Ordering items from a variety of vendors
- Receiving, processing, and distributing new materials
- Obtaining or creating bibliographic and item records
- Processing and payment of invoices
- Identifying materials for deletion and discarding

The acquisition and management of serials and periodicals is a special subcategory of Acquisitions and is included in the scope of this SRS.

The current specification presupposes the general functionality of an ILS and specifies only those requirements that directly or indirectly relate to Acquisitions activities. Later versions of this SRS will be expanded to include additional modules. Requirements for the Circulation (or Inventory Management) module are currently under development.

1.3 Intended Audience

This SRS is intended both for library managers and staff who may contribute additional requirements or commentary, and for software project managers and developers who will implement the requirements. As such, it aims for a high level of readability for a non-technical audience, while providing enough specificity to be useful to a software developer.

It is assumed that when software development occurs, it will be in a highly collaborative and iterative environment in which end-users have multiple opportunities to review and refine the user interface and software functionality.

It is also assumed that the reader has a general understanding of Library services and processes and does not require definition of common Library terminology.

1.4 Document Conventions

The SRS includes requirements, process flowcharts, and use cases. Requirements include a reference to a process flowchart where appropriate. Flowcharts generally indicate the current approach to Acquisitions processes at King County Library System, and should be considered to give contextual information rather than to prescribe or constrain new software development.

Use cases are included for some of the most frequently performed activities. They are intended to supplement the requirements and highlight activities that offer a great potential for increased efficiency and ease of use. Again, they should be considered to be contextual rather than prescriptive.

Because Serials Acquisition and Management are key, unique elements of a successful Library Acquisitions process, requirements related to Serials are included in a separate category.

1.5 User Classes and Characteristics

Patron	A Patron is a customer of King County Library System, either possessing a library card or not, either on site of a community library or not, using either print materials, media materials, or electronic resources.
Acquisitions Staff	Acquisitions Staff include managers, librarians, library technicians, and library pages who select, order, unpack, receive, process, catalog, and invoice materials.
Acquisitions Managers	Acquisitions Managers include management staff who oversee the Acquisitions processes.
Library Managers	Library Managers include Cluster and Site Managers who provide input to the Acquisitions processes and receive materials from the Acquisitions processes.
Library Directors	Library Directors include members of the Library Executive Team who plan and direct Library services and priorities.

1.6 Operating Environment

- OE-1: The Acquisitions Module supports the needs of a large, multiple-branch library system. Specifically, the system must support a library system with 50 locations, 20 million circulations, purchasing and processing over 500,000 items per year. It is highly desirable that searches and reports can be processed during open hours without disrupting other system functions.
- OE-2: The Acquisitions Module shall operate on a Linux or Solaris server.
- OE-3: The Acquisitions Module shall be accessible through a web-browser or a Windows-compatible client.

- OE-4: If web-browser based, the Acquisition Module shall be accessible through Microsoft Internet Explorer (v.6.0 and later) and Mozilla Firefox (v.1.1 and later).
- OE-5: The Acquisition Module shall be accessible with screen-reading software, screen-magnification software, and other software programs designed to increase accessibility.

1.7 Design and Implementation Constraints

- CO-1: The Acquisitions Module shall use a fully relational database back-end.
- CO-2: The Acquisitions Module shall produce standards-compliant HTML.
- CO-3: The Acquisitions Module shall provide a development and training environment with the ability to migrate configurations to a production environment.
- CO-4: User rights and privileges will be controlled through security groups and/or “roles” that allow access control for individuals, workgroups, and arbitrary staff groups.

1.8 User Documentation

- UD-1: The software developer shall provide complete data specifications for patron records, bibliographic records, order records, invoice records, item records, hold/request records, and other records maintained or accessed by the Acquisitions Module.
- UD-2: The software developer shall provide a thorough high-level description of major processes, including patron and staff requests, sending and receiving of EDIFACT files, claim cycles, and standard reports.
- UD-3: The system shall provide an online, hierarchical, and cross-linked help system in HTML that describes and illustrates all system functions.

1.9 Assumptions and Dependencies

- AS-1: The Acquisitions Module is part of an enterprise-level Library Automation System.
- AS-2: Acquisitions processes are centralized at a single location, and accept input and provide services to multiple locations.
- DE-1: The Acquisitions Module relies on the data structures and functionality of an enterprise-level Library Automation System, including a Circulation (or Inventory Management) module.
- DE-2: The Acquisitions Module interfaces with a variety of vendor websites, via published APIs and/or automated transfer of standard-format data files (e.g. EDIFACT).
- DE-3: The Acquisitions module interacts with a patron interface, also known as an Online Public Access Catalog (OPAC), accepting input (e.g. patron materials requests) and providing output (e.g. on-order information and status, holds information, patron request status, etc.)

2. System Requirements

Category: General System Requirements

Req ID:	4001	Source:	ACQ	Priority:	3
Name:	support centralized and distributed acquisitions processes				
Description:	King County Library has 43 branches and one collection. Every aspect of Acquisitions requires support for distributed information gathering and input, and centralized decision making and processing. This includes the selection process, receiving and processing of print and media items, cataloging, and all aspects of serials management.				
Related Reqs:		Related Process			
Req ID:	2492	Source:	ACQ	Priority:	2
Name:	individual and shared staff login accounts				
Description:	Support for individual and shared staff login accounts; access to modules is granted by use of "roles" or "privileges" that allow each account to access as many (or as few) modules as needed. Individual logins allow user-level preferences and audit trail.				
Related Reqs:	5514	Related Process			
Req ID:	2220	Source:	ACQ	Priority:	3
Name:	keyboard macros and shortcuts				
Description:	System supports administrator-programmable and user-programmable macros and/or keyboard shortcuts. Shortcut keys may be assigned to macros (e.g. 'Insert Field') or to text strings. Macros are centrally managed on server, can be imported from and exported to individual users, and can be restricted for use and/or editing through centrally-managed permissions.				
Related Reqs:		Related Process			
Req ID:	2306	Source:	ACQ	Priority:	3
Name:	wildcard searches				
Description:	System supports wildcard searches and substring searches in all fields (including 'number' fields, e.g. isbn, upc, etc.).				
Related Reqs:		Related Process	CAT010		

Req ID: 3018	Source: WEB	Priority: 2
Name: NOT searches		
Description: Ability to search for records that do not match a search variable (e.g. NOT youth).		
Related Reqs:		Related Process CAT010

Req ID: 2205	Source: ACQ	Priority: 2
Name: return to search results		
Description: After searching for a record, ability to return to intermediate results (e.g. 'Back' or 'Return to List').		
Related Reqs:		Related Process CAT010

Req ID: 2204	Source: ACQ	Priority: 3
Name: unlimited number of temporary record sets		
Description: Unlimited number of temporary record sets (aka buckets, query result sets, selection lists, etc.). Record sets can be the basis for batch field updates or for deleting original records; can be used as a limiting scope for subsequent queries; and can be exported.		
Related Reqs: 1712		Related Process

Category: Financial & Legal Requirements

Req ID: 2208 **Source:** ACQ **Priority:** 3
Name: auditor requirements
Description: Software must facilitate validation of ordering, receiving, and invoicing processes using validated data, to satisfy auditor requirements.

Related Reqs: **Related Process**

Req ID: 2154 **Source:** ACQ **Priority:** 3
Name: transactions post in real time
Description: All transactions post in real time: including purchase orders, invoices, fund balances, vendor balances, vendor statistics and history, etc.

Related Reqs: **Related Process** INV011

Req ID: 4201 **Source:** ACQ **Priority:** 3
Name: fund attributes
Description: The system supports an unlimited number of funds. Funds can be grouped into multiple hierarchies. Multiple funds can be used in a single order. Fund balances are visible to selectors and updated in real time. The system triggers an alert when fund balances go below a configurable level. Money can be transferred between funds with appropriate privileges. Inactive funds can be deleted with appropriate privileges.

Related Reqs: **Related Process** SEL080

Req ID: 2155 **Source:** ACQ **Priority:** 2
Name: manage multiple fiscal years
Description: Ability to encumber and disencumber funds in multiple fiscal years.

Related Reqs: 2159 **Related Process**

Req ID: 2159 **Source:** ACQ **Priority:** 2
Name: year-end fiscal turnover process
Description: Year-end fiscal turnover process that closes out funds and transfers encumbered amounts into new fiscal year.

Related Reqs: 2155 **Related Process**

Category: Selection Requirements

Req ID: 3004 **Source:** ACQ **Priority:** 3**Name:** selection list attributes

Description: Selection lists are collections of bibliographic records (short or full) that temporarily store titles being considered for purchase. Selection lists can be shared between acquisitions staff and can be made visible to other staff members for collaborative input. Selection list privileges can be granted to individuals or groups. Selection lists can be queried by selector, list, format, etc. Ability to create order records from selected items on selection list. Additional (desireable but not mandatory) attributes: add notes to selection list; link items on selection list to appropriate fund(s), if assigned, and view fund(s) balances from selection list; ability to show similar and related titles from ILS and/or vendor catalogs; ability to create new selection lists from selected items on existing selection list. Note that a single selection list and even a single item may be linked to several funds.

Related Reqs: 4304**Related Process** SEL061

Req ID: 2122 **Source:** ACQ **Priority:** 3**Name:** automatic distribution formulas

Description: Ability to create an unlimited number of distribution formulas and create distribution formula templates based on different library and collection criteria. Ability to apply a distribution formula to an order record. Ability to track use of distribution formulas.

Related Reqs: 2188**Related Process** SEL091

Req ID: 3101 **Source:** ACQ **Priority:** 3**Name:** patron purchase requests

Description: Patron requests are collected through website (or, less preferably, through a separate webform); patron information is authenticated against ILS; requested items are checked for existence in the collection; owned items are flagged for communication to patron; unowned items directly populate a selection list (see REQ-3004) in the ILS so that retyping is unnecessary. Additionally, information on which vendors have the requested titles would be helpful at the review stage. Ability to manage patron requests throughout the selection and ordering process and generate patron notifications (see REQ-3102).

Related Reqs: 3102 3004 430**Related Process** PAT000

Req ID: 3102	Source: ACQ	Priority: 3
Name: patron request processing		
Description: Patron request status is tracked in patron account; patrons receive notices (by email and by account messages) when item is ordered or rejected, and when item is received.		
Related Reqs: 3101 5706		Related Process PAT120

Req ID: 2166	Source: ACQ	Priority: 2
Name: batch isbn/upc lookup		
Description: Batch ISBN/UPC search.		
Related Reqs: 4302		Related Process

Req ID: 4304	Source: ACQ	Priority: 2
Name: order records include selection history		
Description: Order records include a field showing the history of decisions made with regard to selection or rejection. This history is accessible in selection lists and through queries and reports.		
Related Reqs: 3004		Related Process

Category: Ordering Requirements

Req ID:	3012	Source:	ACQ	Priority:	3
Name:	automated claiming				
Description:	Automated claiming system for all types of materials (including serials). Characteristics include: configurable default claim cycle for unreceived items (e.g. six months); ability to configure specific claim cycles for some vendors; electronic claiming for vendors who support it; facilitation of a manual claiming process; ability to force a claim outside of the defined claim cycle; ability to 'claim again'.				
Related Reqs:	Related Process ORD101				
Req ID:	2221	Source:	ACQ	Priority:	3
Name:	order templates				
Description:	Order templates predefine specific field values in order record; templates can be created by each technician and can be shared between technicians; unlimited number of templates per technician. Templates may be applied to all ordering interfaces including Serials.				
Related Reqs:	Related Process ORD040				
Req ID:	2185	Source:	ACQ	Priority:	3
Name:	delete order record				
Description:	Ability to delete order record with appropriate privileges.				
Related Reqs:	Related Process ORD081				
Req ID:	2177	Source:	ACQ	Priority:	1
Name:	review groups of orders				
Description:	Ability to review a group of orders together before ordering.				
Related Reqs:	Related Process ORD060				
Req ID:	3020	Source:	ACQ	Priority:	1
Name:	count number of items in order file				
Description:	Ability to count the number of items being sent in any one order file.				
Related Reqs:	Related Process ORD060				

Req ID: 3015	Source: ACQ	Priority: 1
Name: order status notes		
Description: Ability to store order status notes in the order record; e.g. if order status is 'canceled' we need to be able to store a reason like 'unrecognizable isbn' or 'title has been postponed'.		
Related Reqs:		Related Process ORD081

Req ID: 2178	Source: ACQ	Priority: 2
Name: search open orders		
Description: Ability to search orders by multiple criteria, e.g. open/closed, vendor, selector, date ordered, date arrived, title, format, etc.		
Related Reqs:		Related Process

Req ID: 2172	Source: ACQ	Priority: 2
Name: order history log		
Description: Order records include change history, including date and staff person making the change.		
Related Reqs: 2108		Related Process

Req ID: 2235	Source: ACQ	Priority: 1
Name: track submitted orders vs. acknowledgements		
Description: Track submitted orders vs. received acknowledgements. Automated record keeping of files sent, ack files received, invoice files received, in sequential order by date.		
Related Reqs:		Related Process ORD070

Req ID: 2175	Source: ACQ	Priority: 2
Name: purchase order printout is fully customizable		
Description: Purchase order printout is fully customizable, including ability to break up a single order into separate purchase orders.		
Related Reqs:		Related Process ORD040

Req ID: 2187

Source: ACQ

Priority: 2

Name: prepaid material orders

Description: Flag prepaid orders so that invoice is handled correctly.

Related Reqs:

Related Process ORD040

Category: Vendor Interface Requirements

Req ID: 2151 **Source:** ACQ **Priority:** 3

Name: edifact standards enabled

Description: Edifact standards enabled; easy ability to FTP orders directly to vendors and receive acknowledgements and status reports from vendors. See related requirements REQ-2112, REQ-2113.

Related Reqs: 2112 2113 **Related Process** ORD060

Req ID: 2183 **Source:** ACQ **Priority:** 3

Name: vendor interface

Description: Ability to interface directly with vendor databases; ability to initiate vendor searches directly from ILS; shared interface for all vendors; shared selection lists (see REQ-3004) with items from multiple vendors; ability to query a list of items against selected vendors or all vendors; ability to de-duplicate between multiple vendor lists and between vendor lists and ILS; ability to configure and save vendor login credentials in ILS user account. (Note: current major vendors include Baker & Taylor, Ingram, Midwest Tape, EBSCO.)

Related Reqs: 3004 **Related Process** SEL020

Req ID: 2110 **Source:** ACQ **Priority:** 3

Name: batch send orders to vendors

Description: Ability to send batches of orders to vendors, including orders for multiple accounts.

Related Reqs: **Related Process** ORD060

Req ID: 2112 **Source:** ACQ **Priority:** 2

Name: edifact ack files

Description: Ability to receive EDIFACT acknowledgement (ACK) files from vendors. ACK files contain order status information. ACK should link to original purchase order and highlight any discrepancies. All information available in acknowledgement files should be visible in ILS.

Related Reqs: 2151 **Related Process** ORD070

Req ID: 2113	Source: ACQ	Priority: 2
Name: edifact further status files		
Description: Ability to receive EDIFACT 'further status' reports (aka order status information) from vendors who support this.		
Related Reqs: 2151		Related Process ORD090

Req ID: 2249	Source: ACQ	Priority: 2
Name: flag vendors who require pre-payment		
Description: Ability to 'flag' vendor records for vendors who require pre-payment of purchase orders, to aid in selection of vendors during pre-order phase.		
Related Reqs:		Related Process

Req ID: 2248	Source: ACQ	Priority: 2
Name: flag vendors no longer used		
Description: Ability to 'flag' vendors who we no longer use, but whose records need to be kept for vendor history.		
Related Reqs:		Related Process

Req ID: 2188	Source: ACQ	Priority: 2
Name: vendor 'one-click' support		
Description: Support for vendor 'one-click' systems that allow easy download of vendor marc records; create bibliographic records and item records in catalog; accept data in 9XX tags to create order records and purchase order; encumber proper funds; accept vendor record identification in the marc file; accept isbn search in a url string so that isbn lookup features work.		
Related Reqs: 2122, 2190		Related Process ORD034

Req ID: 2190	Source: ACQ	Priority: 3
Name: enhanced vendor content		
Description: Ability to accept enhanced opac content from vendors, e.g. jacket images, full-text reviews, tags, read-alike suggestions, etc. System will support LibraryThing, ChiliFresh, Content Café, LiveChat, and others vendors.		
Related Reqs: 2188 7108		Related Process

Category: Receiving Requirements

Req ID: 2120	Source: CAP	Priority: 2
Name: materials receiving/cataloging process		
Description: All staff involved in receiving/cataloging workflow should be able to process information from the same interface. (E.g. selecting, ordering, unpacking, receiving/cataloging, invoicing, etc.).		
Related Reqs: 2108		Related Process
<hr/>		
Req ID: 4010	Source: CAP	Priority: 3
Name: receiving new item generates item records		
Description: New items are received into the system by scanning a barcode. Item records are created based on order record fields (e.g. item destination).		
Related Reqs:		Related Process REC030
<hr/>		
Req ID: 2495	Source: ACQ	Priority: 3
Name: transfer records between bibliographic records		
Description: Ability to transfer item records, order records, and holds from one bibliographic record to another (e.g. when duplicate records are merged).		
Related Reqs: 2282		Related Process CAT030
<hr/>		
Req ID: 3011	Source: ACQ	Priority: 2
Name: item receipt worksheet		
Description: Generate a worksheet from order record for each title received. Include author, title, call number, order date, number of copies, distribution instructions, and processing notes. Include space for adding date received and name of receiver. Ability to customize worksheet as needed.		
Related Reqs:		Related Process REC005

Req ID: 2284	Source: CAP	Priority: 3
Name: receive partial orders		
Description: Ability to update order records at receiving stage; ability to receive partial orders and unreceive orders; order record is updated automatically when balance of partial order is received.		
Related Reqs:		Related Process REC030

Req ID: 2108	Source: CAP	Priority: 3
Name: add order comments during receiving and cataloging		
Description: Ability to flag orders or add notes during the receiving and cataloging process; e.g. 'show to selector before receiving'.		
Related Reqs: 2120 2172		Related Process REC040

Category: Cataloging Requirements

Req ID: 1716 **Source:** CAP **Priority:** 3

Name: MARC import/export

Description: MARC bibliographic and authority records can be imported and exported, singly and in batch, all fields or selected fields, to and from vendors including OCLC. Imported records can overlay existing short or full bibliographic records. Imported batches can be maintained and manipulated as selection lists (see REQ-3004).

Related Reqs: 3004

Related Process CAT180

Req ID: 1720 **Source:** CAP **Priority:** 3

Name: OCLC Connexion interface

Description: Full compatibility with OCLC Connexion for searching bibliographic and authority records, creating and editing bibliographic records, and importing records to system (with or without overlaying) via OCLC's Gateway Interface.

Related Reqs:

Related Process CAT110

Req ID: 2233 **Source:** ACQ **Priority:** 3

Name: short bibliographic records

Description: Ability to create and store bibliographic record templates to facilitate the creation of 'short' bibliographic records for ordering purposes. Ability to overlay short bibliographic records with full MARC records, matching on system-generated record numbers.

Related Reqs: 4302

Related Process ORD036

Req ID: 4302 **Source:** ACQ **Priority:** 2

Name: short bibliographic record utility

Description: Utility to facilitate searching for full bibliographic records and create temporary 'short' bibliographic records if no full records are found. Utility will search the current holdings for similar and related titles. If no record is found, or if found records are not selected, utility will allow quick creation of short bibliographic record.

Related Reqs: 2162 2166 223

Related Process

Req ID: 1721

Source: CAP

Priority: 1

Name: multiple volume sets

Description: Ability to organize and control multiple copies of multi-volume sets and serials holdings, facilitating circulation either individually or as a group, as defined by the bibliographic record.

Related Reqs: 2218

Related Process

Category: Processing Requirements

Req ID: 4101 **Source:** CAP **Priority:** 3

Name: spine labels

Description: Ability to create, format, and print spine labels, including: create a spine label based on item call number by default; modify spine label without altering item call number; print spine labels individually or queue to print in batch; spine labels have at least 6 lines of 16 characters per line at arial 10 bold. Ability to change font style, boldness, and font size as needed; change text alignment to center vertically and/or horizontally; change text orientation to horizontal or vertical on a line-by-line basis. Ability to print multiple copies of individual labels. Ability to create, save, modify, and use label templates.

Related Reqs: 2255 2256 **Related Process** PRO030

Req ID: 4102 **Source:** CAP **Priority:** 3

Name: barcodes

Description: The system must read and support barcodes as follows:
1) Read 8, 10, and 14 digit barcodes.
2) Support single and multiple barcodes.
3) Assign sequential barcodes to a number of items.
4) Support replacement barcodes.
5) Transfer one or more barcodes between bibliographic records.

Related Reqs: **Related Process** REC030

Req ID: 2255 **Source:** CAP **Priority:** 2

Name: printer compatibility

Description: Compatible with Zebra Z4M thermal transfer printers (for printing spine labels).

Related Reqs: 2256 4101 **Related Process** PRO030

Req ID: 2126 **Source:** ACQ **Priority:** 2

Name: destination libraries for partial orders

Description: Ability to manually select libraries to receive items when partial orders are received, or when items come in multiple deliveries. Especially important for incomplete shipments of serials.

Related Reqs: **Related Process** REC030

Category: Invoicing Requirements

Req ID: 2292	Source: ACQ	Priority: 3
Name: invoice module allows multiple users		
Description: Simultaneous access to invoice interface.		
Related Reqs:		Related Process INV000
Req ID: 2121	Source: ACQ	Priority: 3
Name: keep all orders in ACQ module		
Description: Ability to do both regular and 'x-type' invoicing. (X-type invoicing refers to invoices without a purchase order number, e.g. direct charges to a fund.). Includes regular orders, pre-paid orders, standing orders, direct charges, etc.		
Related Reqs:		Related Process INV000
Req ID: 2152	Source: ACQ	Priority: 3
Name: electronic receiving and invoicing		
Description: Support electronic receiving and invoicing as follows: ability to receive electronic packing slips and invoices by purchase order or invoice number; ability to edit number of copies, amount due, freight and service charges, and tax; ability to delete line items; ability to recalculate total amounts; ability to authorize payment within ILS.		
Related Reqs:		Related Process INV020
Req ID: 2293	Source: ACQ	Priority: 3
Name: invoice fields		
Description: Date, invoice number, invoice type, shipping vendor name, billing vendor (may be different than shipping vendor), purchase order number, title, author, number of copies ordered, number of copies paid or received, number of copies available for payment, number of copies being paid for, amount, notes (minimum 60 spaces), invoice subtotal, freight charge, service charge, tax, invoice total, vendor order was placed with.		
Related Reqs:		Related Process

Req ID: 2297	Source: ACQ	Priority: 3
Name: invoice vouchers		
Description: Print list of invoices paid since last run; include all user-entered information; page break between invoices; fund accounts appended to end of each invoice.		
Related Reqs:		Related Process INV081

Req ID: 2300	Source: ACQ	Priority: 2
Name: invoicing and receiving information in order record		
Description: Invoice payment information and receiving information should be inserted into order record at time of payment: date received, packing slip number, full/partial shipment status, invoice number, invoice date, paid date, amount paid, note field.		
Related Reqs:		Related Process INV170

Req ID: 2299	Source: ACQ	Priority: 2
Name: invoice/vendor links		
Description: Ability to search invoices by invoice number or vendor name; invoices records include links to vendors, and vendor records include links to invoice history.		
Related Reqs:		Related Process INV000

Req ID: 2294	Source: ACQ	Priority: 2
Name: invoice already paid		
Description: When invoice number and vendor name are entered, notify if there are existing payments. Allow additional payments if balance is non-zero. Require change to invoice line items and/or additional charges before allowing payment on zero-balance invoice.		
Related Reqs:		Related Process INV120

Req ID: 2303	Source: ACQ	Priority: 2
Name: partial invoice payments		
Description: Partial payments change invoice status to 'partial'; remaining balance is visible; encumbered balance remains encumbered.		
Related Reqs: 2284		Related Process INV170

Req ID: 2302

Source: ACQ

Priority: 2

Name: reopen closed invoice

Description: Ability to reopen a closed invoice.

Related Reqs:

Related Process INV170

Category: Serials Requirements

Req ID: 2309 **Source:** SER **Priority:** 3**Name:** serials holdings records**Description:** A serials holdings record holds bibliographic and holdings information for serials subscriptions. A holdings record includes a summary of holdings statement field, including library locations that can be edited and reordered in any order. Serials holdings record notes can be sorted in reverse chronological order.**Related Reqs:** **Related Process** SER233

Req ID: 2319 **Source:** SER **Priority:** 3**Name:** serials check-in system**Description:** ILS includes a system to receive and process periodical titles. The system records the frequency and number of issues in a "check-in table". It should allow an unlimited number of issues per title. When issues arrive, they are checked into the system in a batch process that minimizes the need for repetitive typing. If the number of issues differs from expectation, the system shows the discrepancy and facilitates the claiming process (see REQ-3012). Issues can be transferred from title to another.**Related Reqs:** 3012 **Related Process** SER234

Req ID: 4303 **Source:** SER **Priority:** 3**Name:** serials holdings record display in opac**Description:** Information from the serials holdings record can be displayed in the OPAC in a customizable, user-friendly way. Specifically, summary holdings statement is easily browsable, issues are listed in reverse chronological order, and patron can easily place holds on first available copy.**Related Reqs:** 2309 2311 **Related Process**

Req ID: 2147 **Source:** SER **Priority:** 2**Name:** view serials subscription information**Description:** Ability to view subscription information for all libraries, by title, by call number range, by publication date, etc.**Related Reqs:** **Related Process** SER130

Req ID: 2242	Source: SER	Priority: 1
Name: periodical ceases publication		
Description: Automatic processing of periodicals that cease publication. Close MARC record via 008, 260, 362 fields; add notes to check-in record; delete unreceived issues from check-in system. (May be handled through a macro, see REQ-2220.)		
Related Reqs: 2220		Related Process SER340

Req ID: 2315	Source: SER	Priority: 2
Name: multiple serial issue types		
Description: Ability to specify when adding a regular issue, supplemental issue, index issue, etc. Ability to specify additional types of issues to picklist.		
Related Reqs:		Related Process SER240

Req ID: 2311	Source: SER	Priority: 2
Name: date display format		
Description: Ability to format date display in serials records, e.g. 'Mon YYYY' or 'YYYY MON'.		
Related Reqs: 4303		Related Process SER233

Req ID: 2141	Source: CIR	Priority: 1
Name: move magazines from shelf to circulate		
Description: Receiving new issue causes previous issue to go automatically into holdable status. (May be handled through a macro, see REQ-2220.)		
Related Reqs: 2220		Related Process SER280

Category: Inventory & Record Maintenance Requirements

Req ID: 2275	Source: CAP	Priority: 3
Name: item location codes in separate fields		
Description: Provide separate fields for branch identification, reading level (e.g. adult, juvenile) and shelving location (e.g. fiction, DVD).		
Related Reqs: 2274		Related Process
<hr/>		
Req ID: 5190	Source: CIR	Priority: 3
Name: requesting rules		
Description: System allows creation and modification of requesting rules that determine whether a patron can place a hold on an item. Requesting rules may evaluate patron type, current number of holds, current patron account balance, item type, item status, owning location code, and other criteria. For example, requesting rules may prohibit patrons from placing holds on on-order CD titles, but allow patrons to place holds on other on-order titles. Requesting rules also specify whether staff with specific privileges or roles can override specific criteria. (See REQ-5057 re loan rules, REQ-5278 re visibility.)		
Related Reqs: 5057 5278		Related Process HOL-011
<hr/>		
Req ID: 2160	Source: ACQ	Priority: 3
Name: holds on on-order titles		
Description: Ability to place holds on titles with status on-order. (Note REQ-5190 re rules of requesting, REQ-5278 re visibility of title records.)		
Related Reqs: 5190 5278		Related Process
<hr/>		
Req ID: 5255	Source: ACQ	Priority: 3
Name: transfer holds between bibliographic records		
Description: Ability to transfer holds from one bibliographic record to another, singly or in batch, sorting by date of original hold request.		
Related Reqs: 5253		Related Process

Req ID: 2184	Source: ACQ	Priority: 3
Name: view copies, holds, and check-out status		
Description: Ability to see number of copies, check-out status, and number of holds all on one screen. (Staff interface and patron interface.)		
Related Reqs:		Related Process SEL005

Req ID: 1803	Source: CIR	Priority: 2
Name: hold first available copy		
Description: Allow staff and patrons to place holds on first available copies of materials, including first available copies of specific magazine issues or specific volumes in a multi-volume set.		
Related Reqs: 5268		Related Process

Req ID: 1802	Source: CIR	Priority: 1
Name: hold 'any copy'		
Description: Allow patrons to choose 'any copy' on titles with volumes, if patron does not have volume preference.		
Related Reqs:		Related Process

Req ID: 2143	Source: SER	Priority: 2
Name: unlimited items per bibliographic record		
Description: Ability to add unlimited items to a single bibliographic record. For example, this is important for magazine titles that may comprise thousands of items per year.		
Related Reqs: 2279, 2280, 55		Related Process

Req ID: 3005	Source: ACQ	Priority: 2
Name: item records, flags		
Description: Ability to flag item and order records for various purposes: to generate alerts to specified staff when new item arrives, e.g. 'weed old versions of this title'; to generate alerts to specified staff when an item is checked in, e.g. 'return this item for weeding'; to force routing to Preston Service Center when an item is checked in; etc.		
Related Reqs:		Related Process

Req ID: 2318	Source: SER	Priority: 2
Name: print routing slip		
Description: Ability to flag an item to print a routing slip at next check in. Especially for routing periodicals to specific staff members. Routing slip should print on check in. Include title, check in date, staff name, and department.		
Related Reqs:		Related Process
Req ID: 2520	Source: ACQ	Priority: 1
Name: item records, last copy flag		
Description: Item record gets a flag when it is the last copy in the system. Ability to trigger processing based on this flag.		
Related Reqs:		Related Process
Req ID: 5280	Source: CIR	Priority: 3
Name: item records, deleting		
Description: Ability to delete individual or batch of records, with sufficient privileges. Deleted item records remain accessible for reporting and research purposes.		
Related Reqs:		Related Process
Req ID: 2522	Source: ACQ	Priority: 2
Name: item records, location history		
Description: Track location history for items; at a minimum, show last and current location.		
Related Reqs:		Related Process
Req ID: 5253	Source: ACQ	Priority: 3
Name: merge bibliographic records		
Description: Ability to merge bibliographic records, combining their holds queues in order of request date.		
Related Reqs: 5255		Related Process

Req ID: 3001

Source: ACQ

Priority: 1

Name: item routing

Description: Ability to mark item records for routing to specific location. Item record includes a message specifying reason for routing. Item remains unavailable for circulation until item is rerouted to home location.

Related Reqs: 3005

Related Process

Category: Reporting Requirements

Req ID: 2131 **Source:** ACQ **Priority:** 3

Name: purchase alert query

Description: Purchase alert query (aka holds ratio report, holds alert report) compares holds to items and flags titles that need more copies. Ability to include in-print/out-of-print status from bibliographic record (see REQ-3014). Ability to add query results directly to selection lists, singly or in batch. Ability to create order records directly from query results.

Related Reqs: 3014

Related Process SEL005

Req ID: 2202 **Source:** ACQ **Priority:** 3

Name: flexible queries and reports

Description: All queries and reports include the ability to sort, filter, and limit on any variable or fixed field or subfield in any record type (bibliographic, item, order, authority). Ability to search for records that fall within a range of values. Ability to save customized queries and output criteria for future use. Ability to retrieve last X queries to repeat search and/or save query permanently.

Related Reqs:

Related Process

Req ID: 2197 **Source:** ACQ **Priority:** 2

Name: report format and output

Description: Ability to fully customize layout and appearance of reports. Ability to display, print, email, or save report to standard formats including CSV and Excel, as well as to customizable formats.

Related Reqs:

Related Process

Req ID: 4301 **Source:** ACQ **Priority:** 2

Name: report definitions / descriptions

Description: Circulation: Monthly and year-to-date circulation per branch, per format, and per age group.
Community Study: Turnover of various collections at a branch, compared with systemwide turnover.
Cost Per Fund Report: amount spent per fund, including average discount and average cost.
Dusty Report: items that haven't circulated within a designated period of time.
Floating Collection Distribution: circulation location for floating collections.
Floating Collection Circulation: percentage of floating collection that is currently circulating.
Fund Reports: appropriation, encumbrances, expenditures, % encumbered, % expended, number of items paid for, and average cost per item.
Naked Bibs Report: bibliographic records that don't have other records attached to them.
No Copies Report: items paid for during opening day collection process, for which there is no copy record.
Only Copy Report: titles at a branch that are owned only by that branch.
Opening Day Collection Planning Sorts: number of items within specific collections at a branch undergoing remodeling or rebuilding.
Opening Day Collection Purchase List: recent records of specific collections, excluding titles located at a specific branch or branches.
Purchase Alert Report: compares number of viable copies and number of holds against a set of ideal ratios based on format.
Recall Reports: recall and discard old editions of titles when new editions have arrived.
Reference List: list of titles entered into database but not immediately ordered.
Selection lists with holds: pre-order items carrying holds.
Size of Collection Report: size of collection by branch, format, call number range, etc.
Spent for Location Report: Amount spent per month per location.
Spot Check Report: titles purchased with Opening Day Collections fund.
Systemwide Collections Report: loss rate, average age, number of nonviable copies, turnover of viable copies, etc., per collection and location.
Systemwide Collections Turnover Report: number and circulation of viable copies in various collections based on call number range and format.
Transactions Sent to Vendor: all transactions that have been sent to a vendor.
Turnover Report: Number and circulation of titles by branch, format,

call number range, publication date range, etc.

Unordered Item Holds Report: unordered items carrying holds.

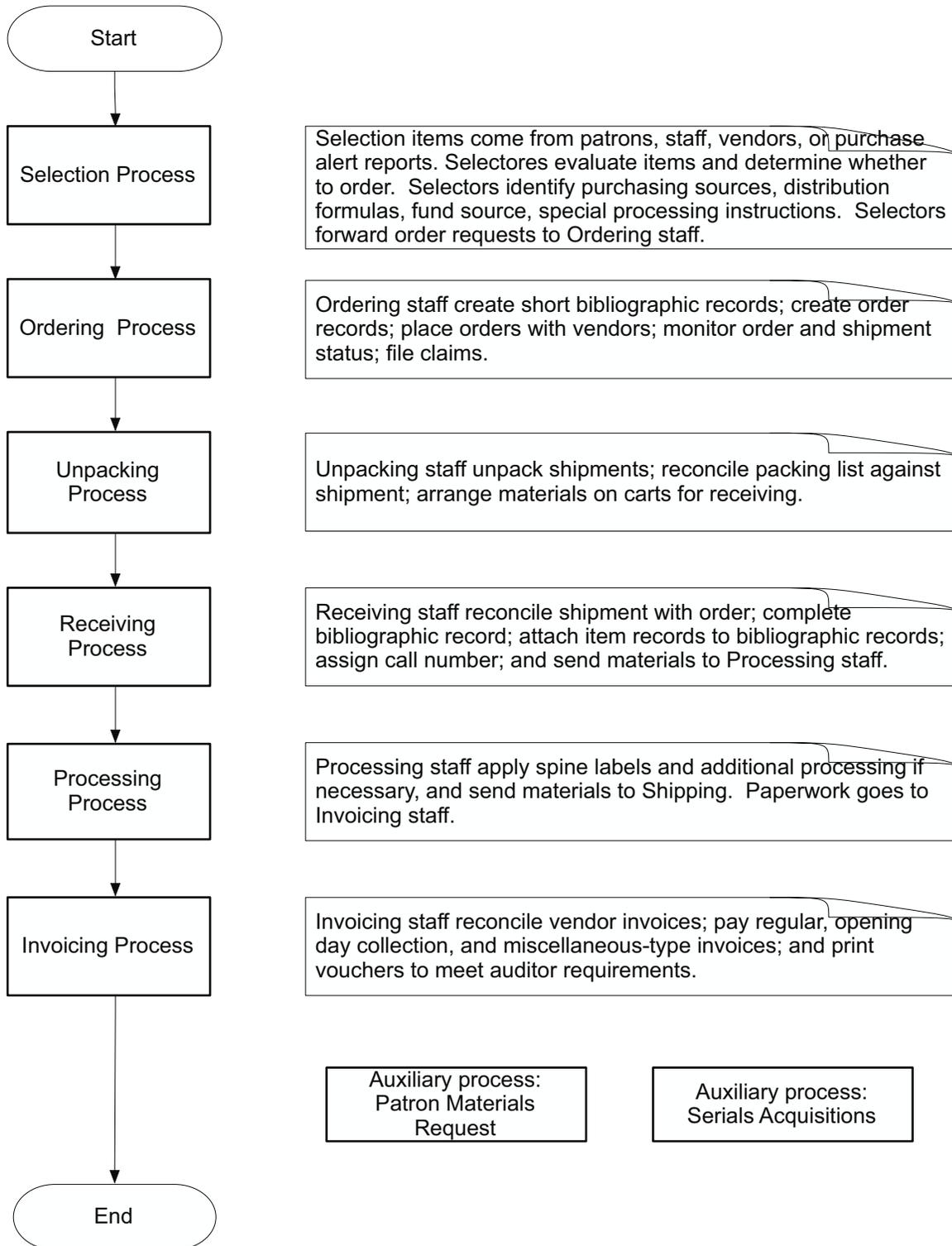
Vendor Report: order fill rate, average order fill time, number of vendor cancellations, number of KCLS cancellations, etc.

Other miscellaneous reports: zipcode, current borrower, permanently encumbered order records, titles with holds but no viable copies, etc.

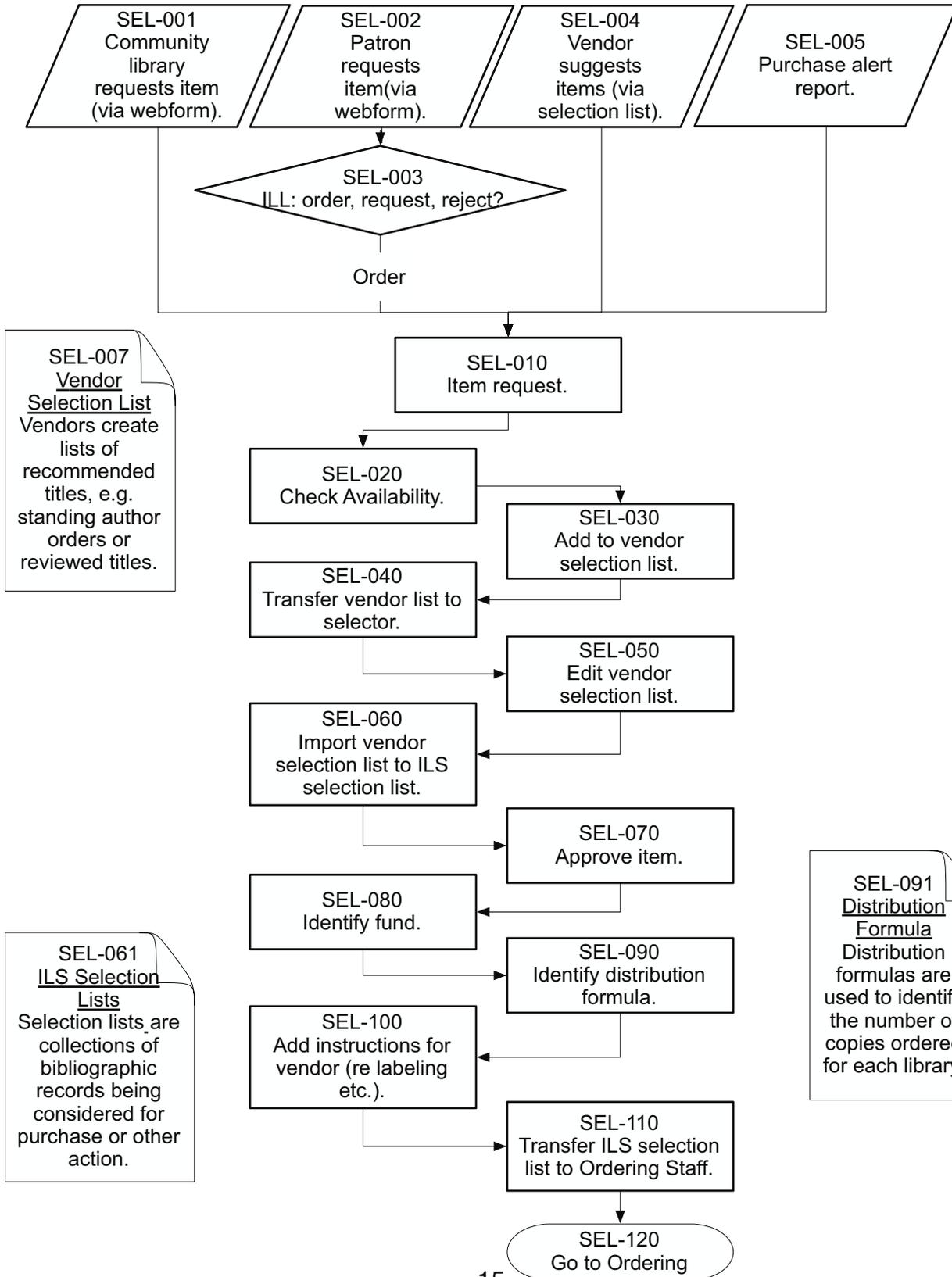
Related Reqs:

Related Process

Acquisitions Processes - Master Flowchart



Selection Process

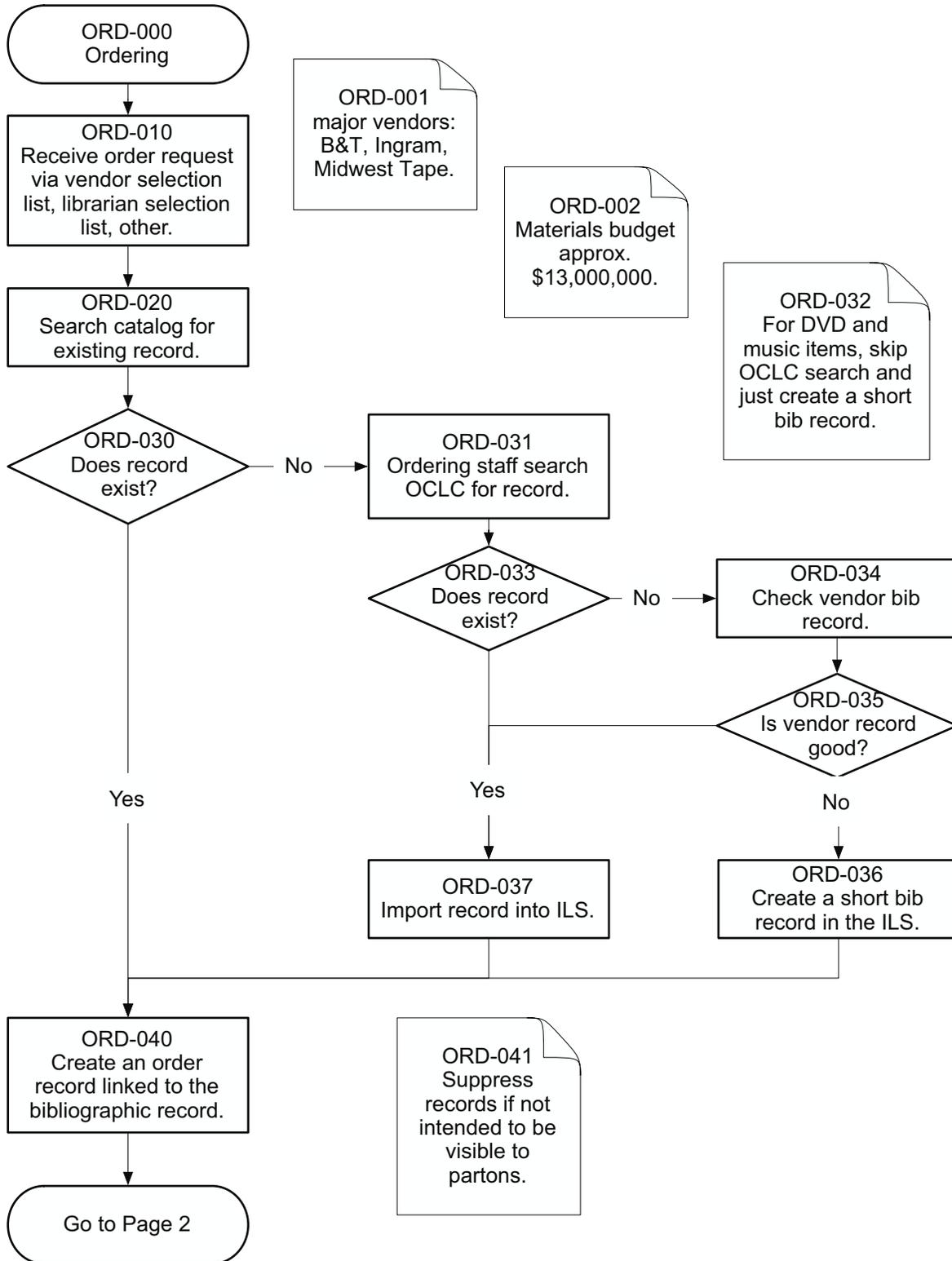


SEL-007 Vendor Selection List
Vendors create lists of recommended titles, e.g. standing author orders or reviewed titles.

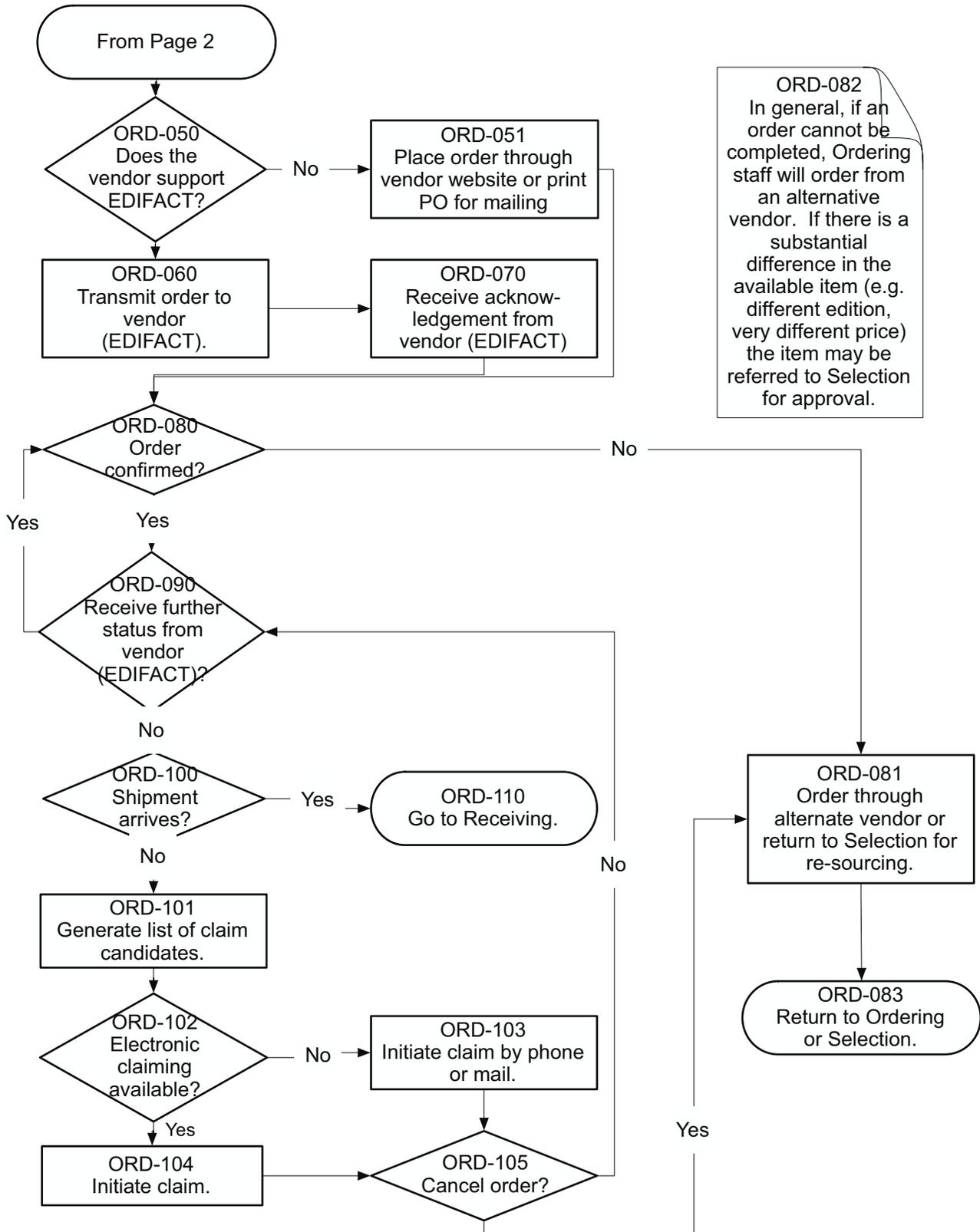
SEL-061 ILS Selection Lists
Selection lists are collections of bibliographic records being considered for purchase or other action.

SEL-091 Distribution Formula
Distribution formulas are used to identify the number of copies ordered for each library.

Ordering Process, pg. 1

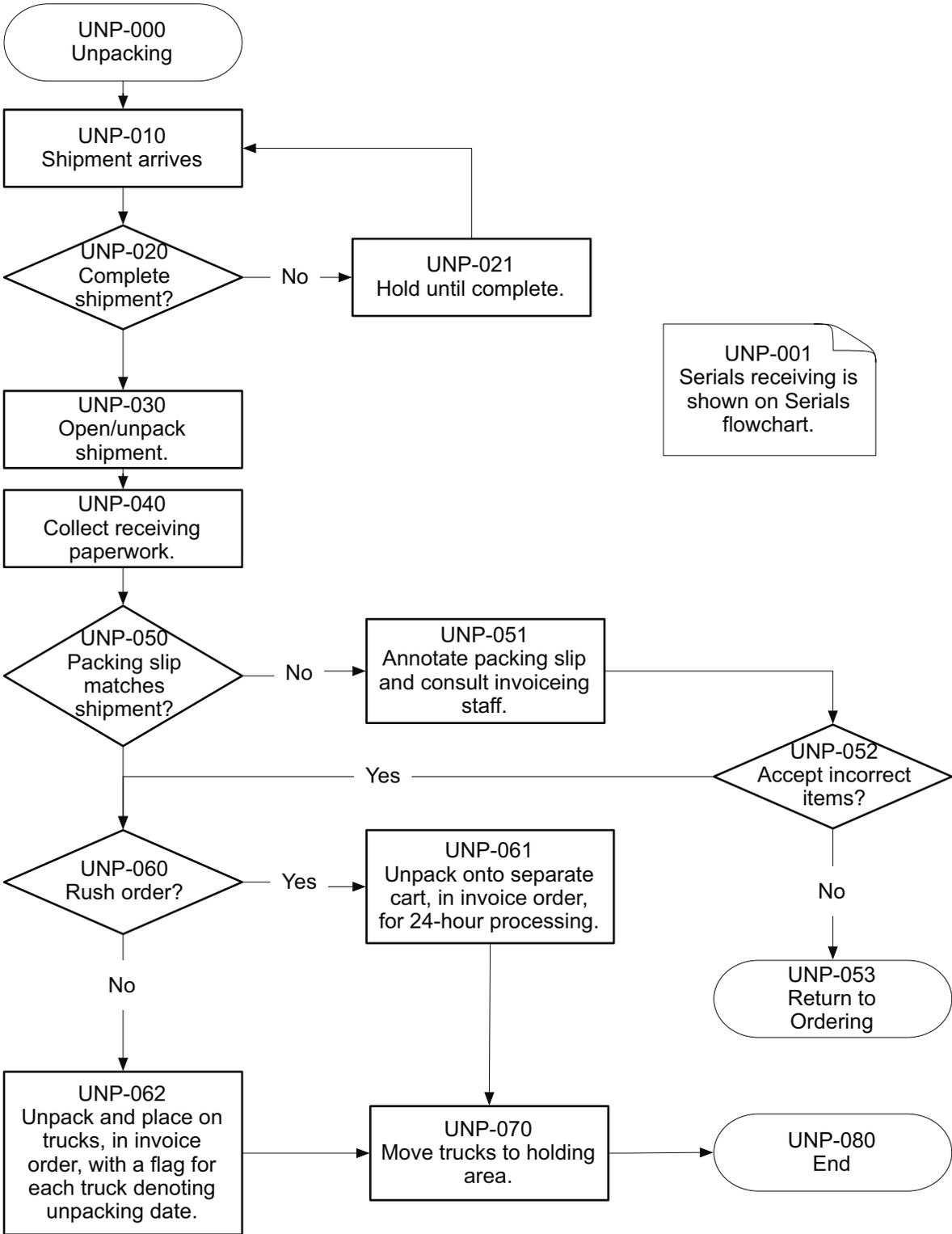


Ordering Process, pg. 2

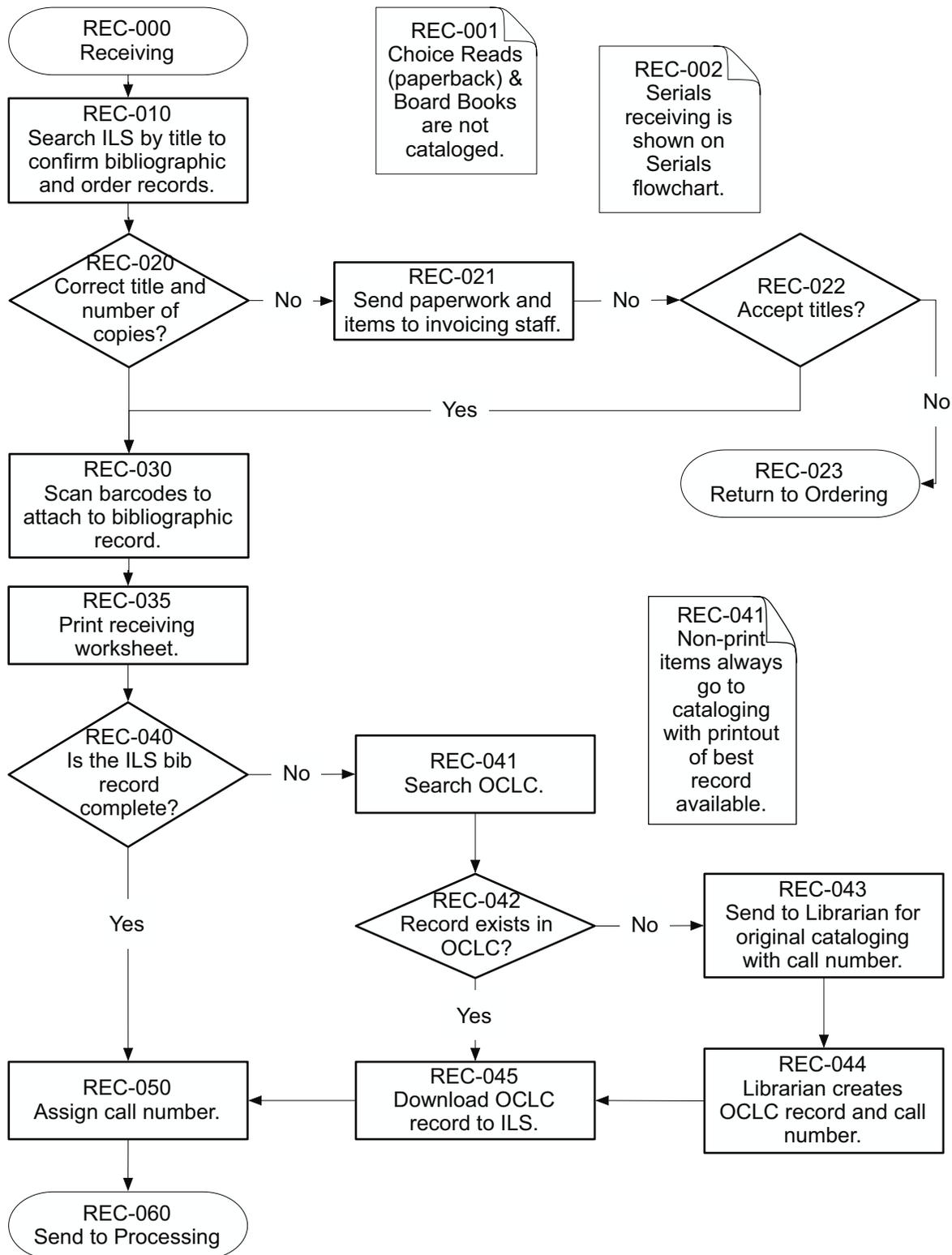


ORD-082
In general, if an order cannot be completed, Ordering staff will order from an alternative vendor. If there is a substantial difference in the available item (e.g. different edition, very different price) the item may be referred to Selection for approval.

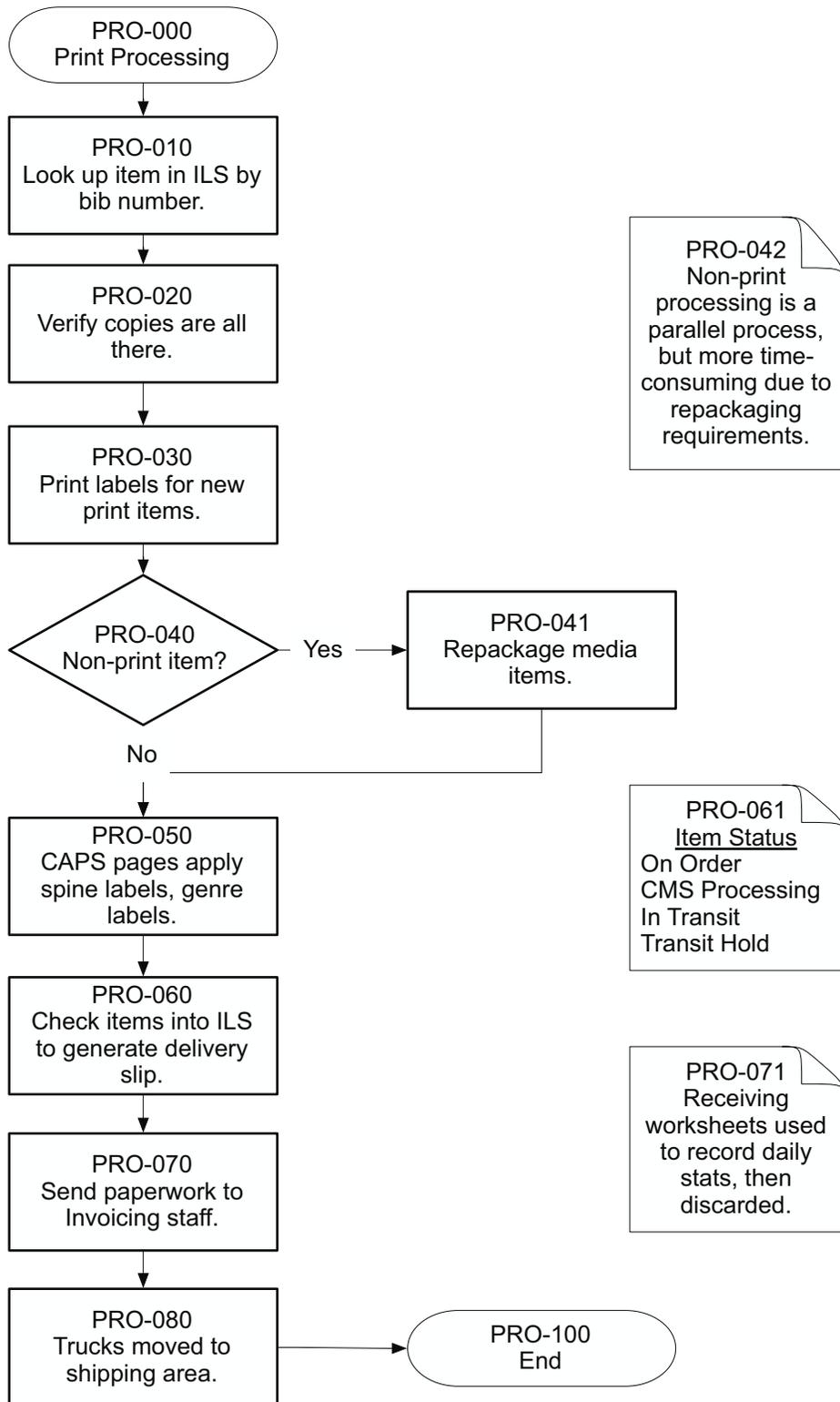
Unpacking Process



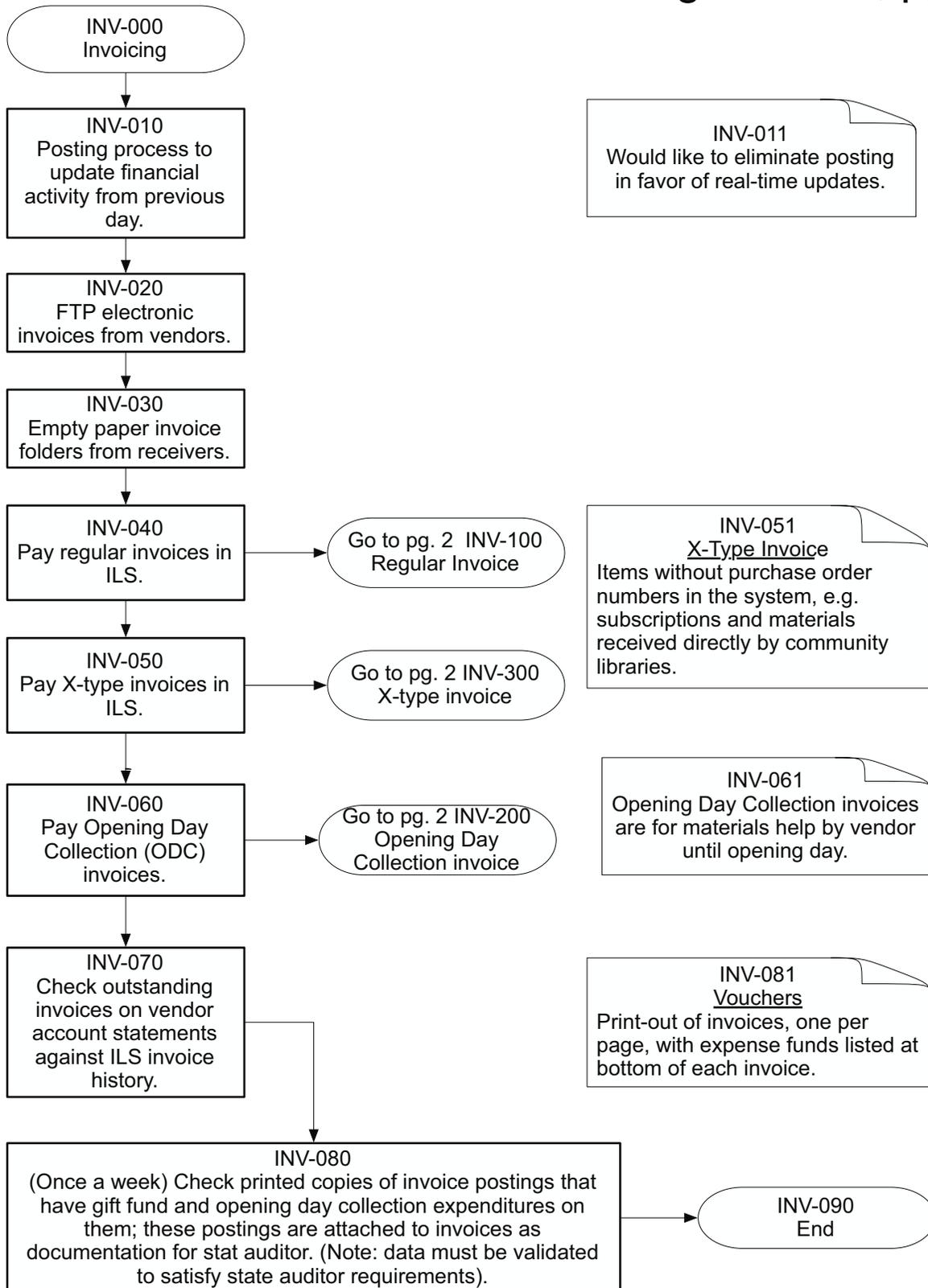
Receiving Process



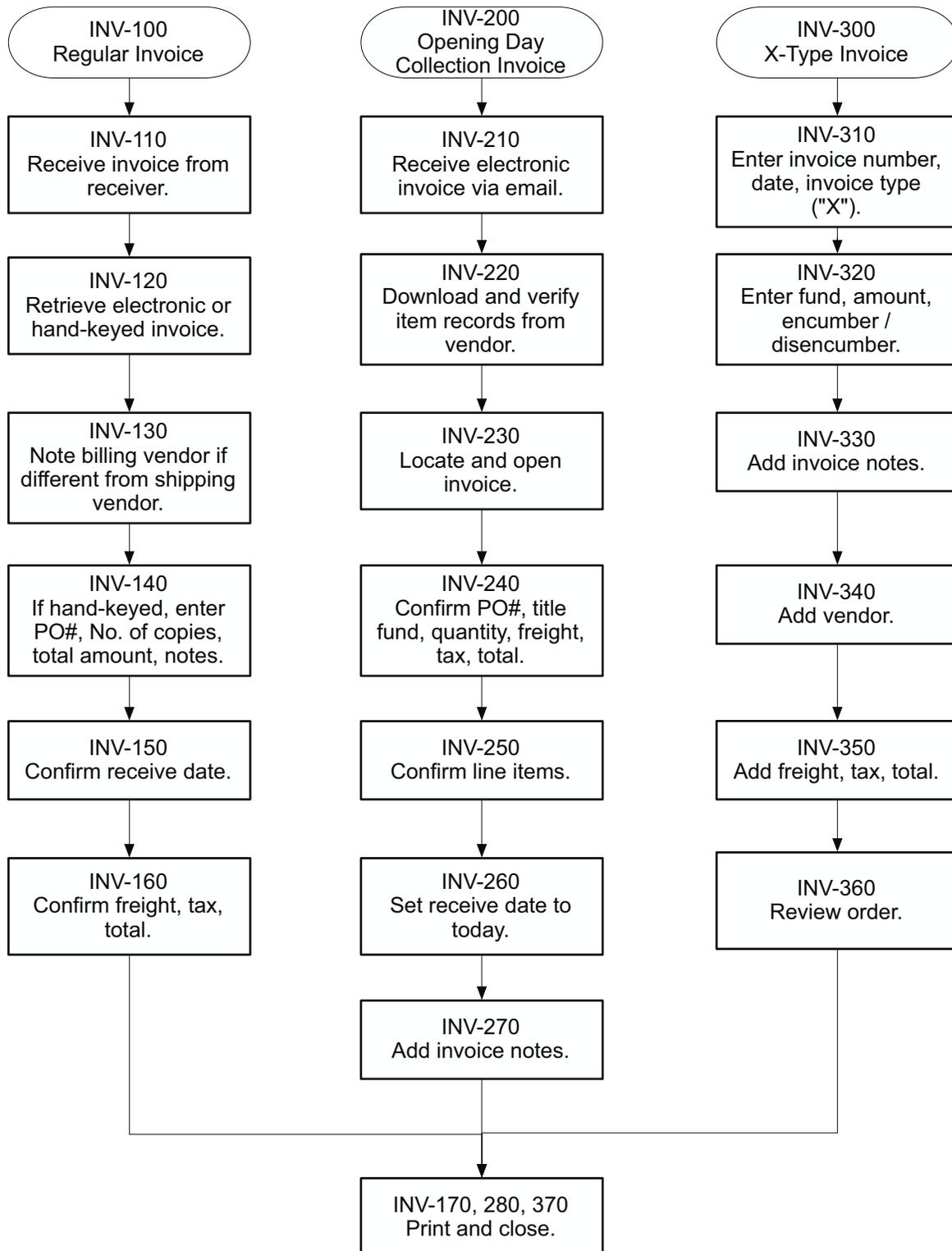
Processing Process



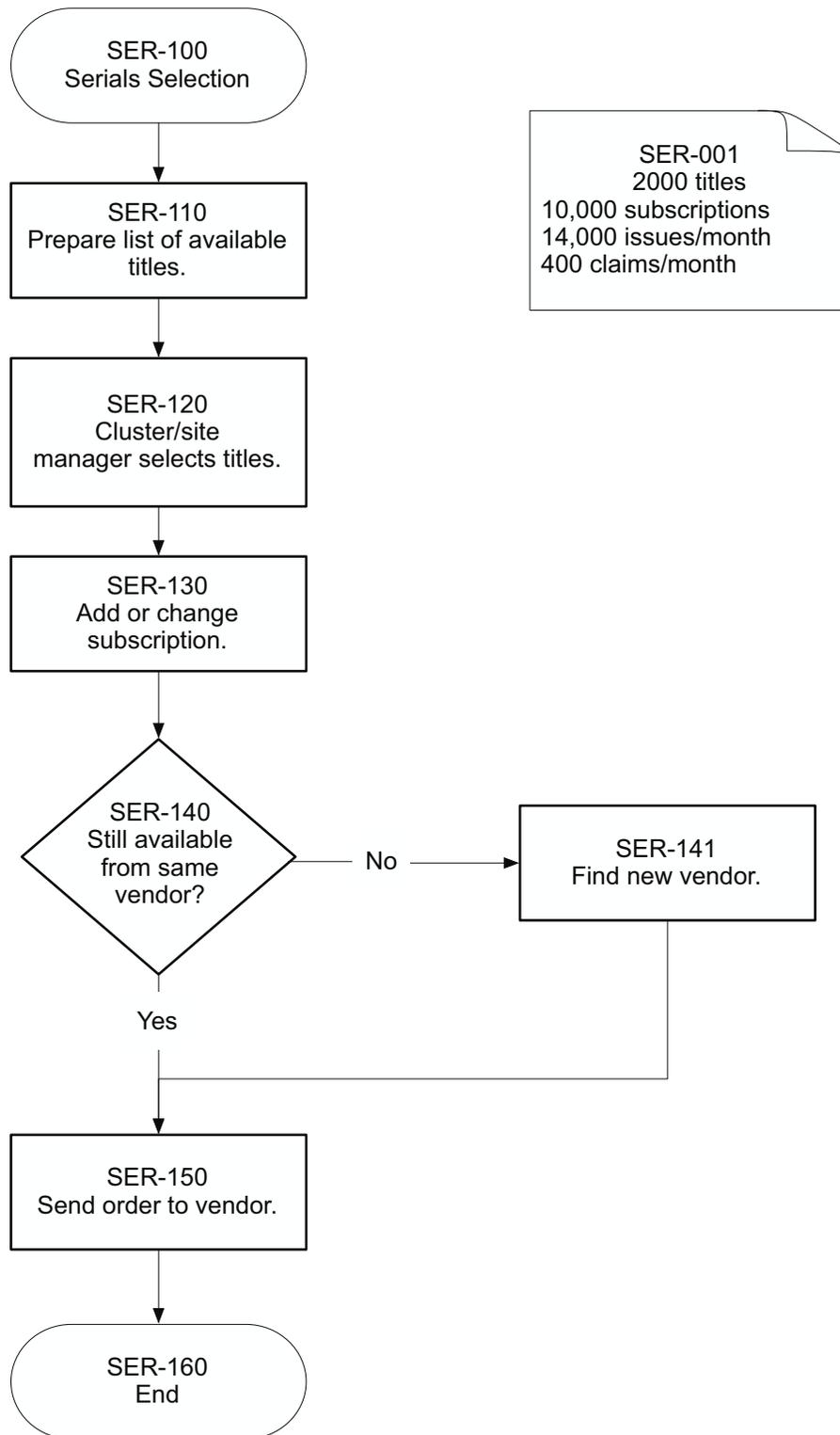
Invoicing Process, pg. 1



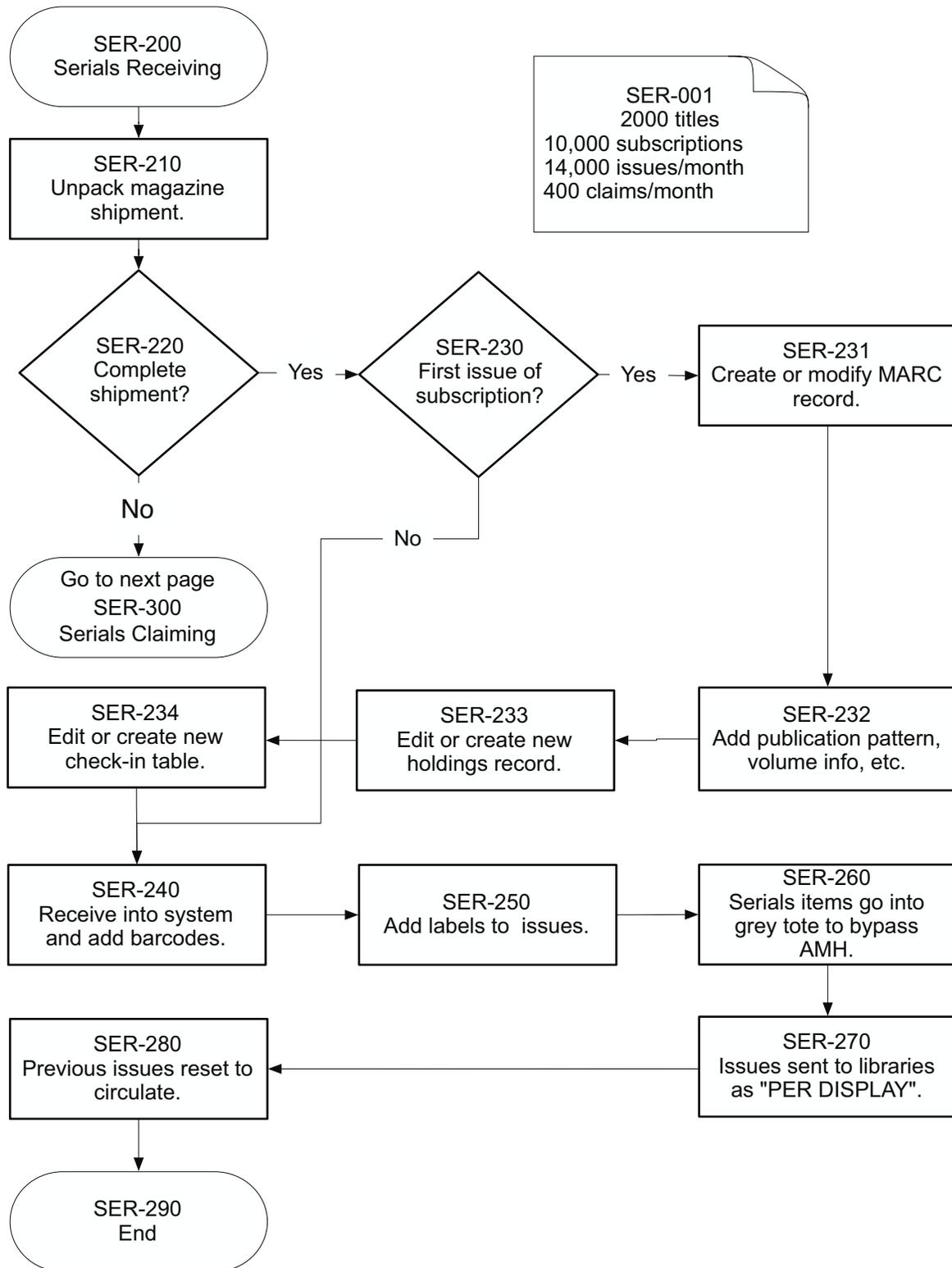
Invoicing Process, pg. 2



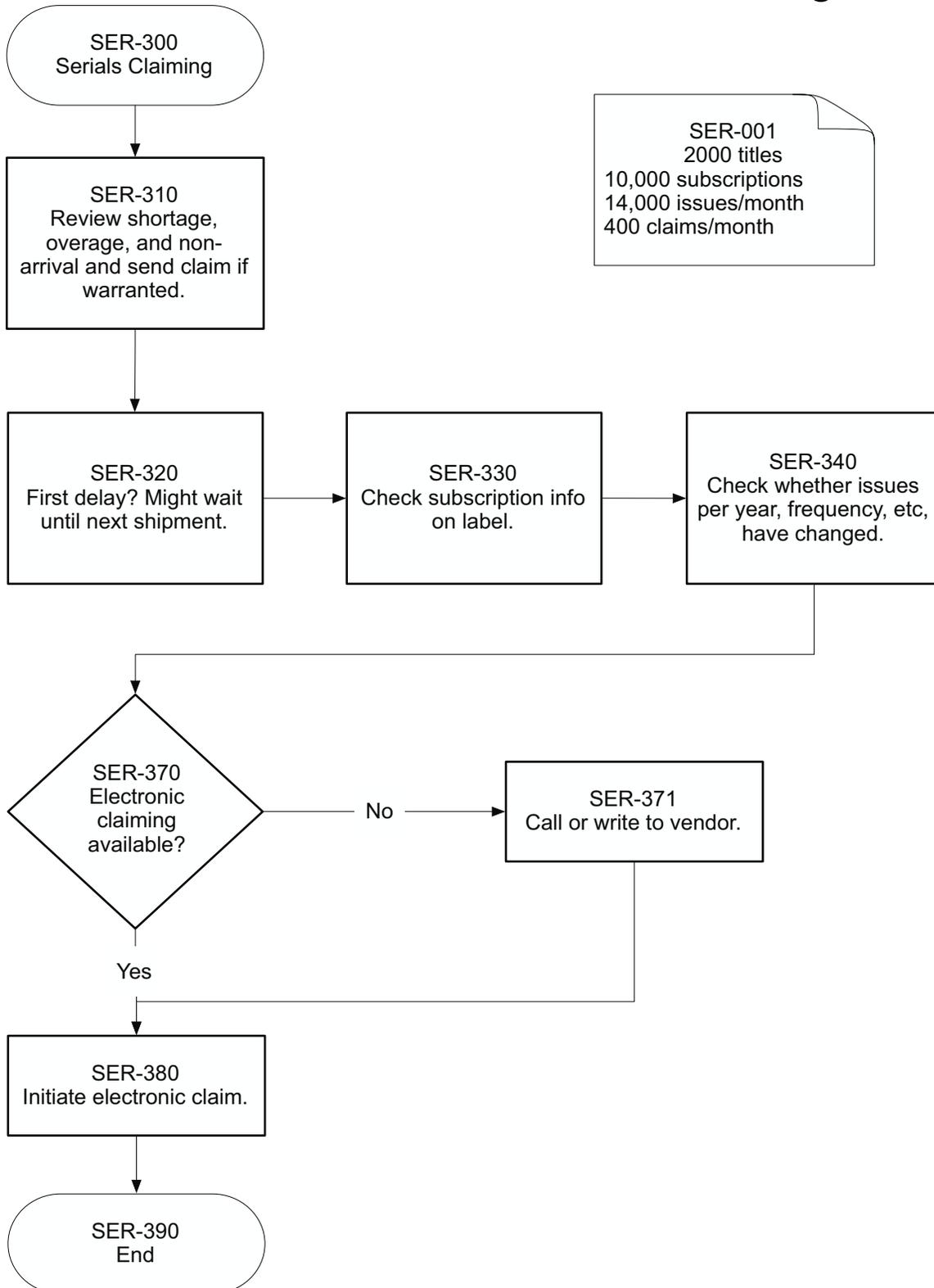
Serials Selection Process



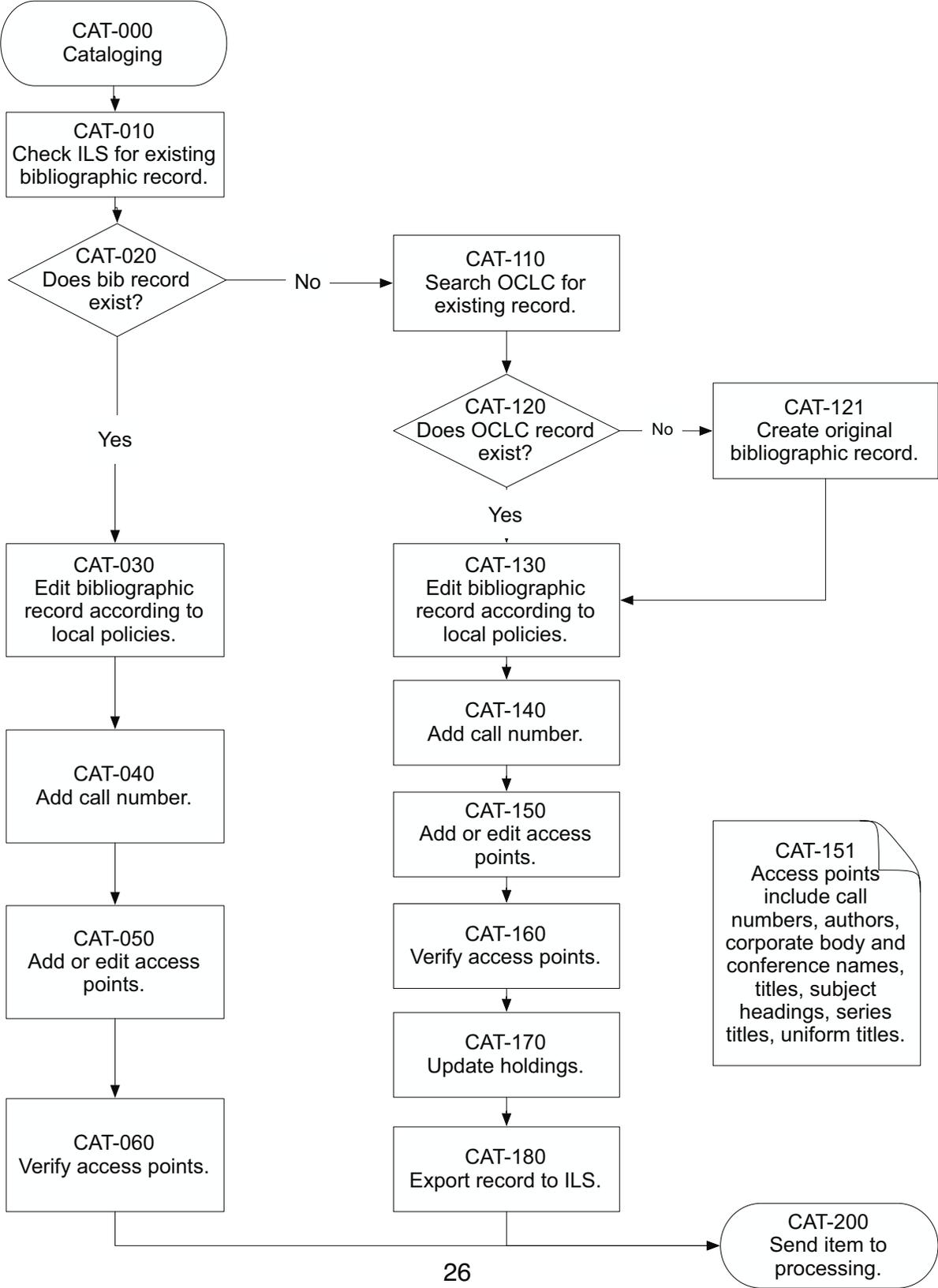
Serials Receiving Process



Serials Claiming Process

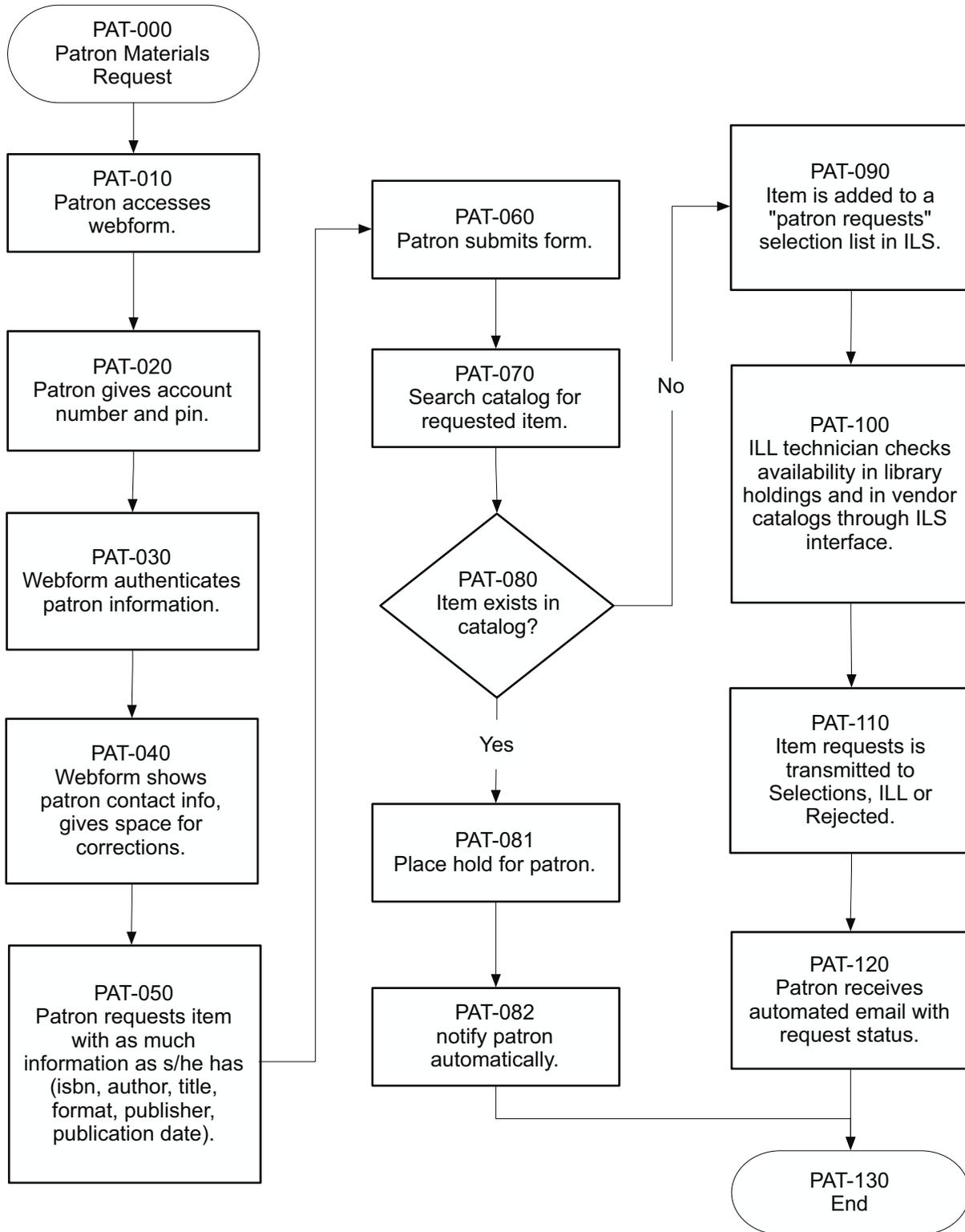


Cataloging Process



CAT-151
Access points include call numbers, authors, corporate body and conference names, titles, subject headings, series titles, uniform titles.

Patron Requests (Proposed)



4. Use Cases

4.1 Use Case List

We have written use cases for selected, frequently-performed activities. These are included to supplement the requirements, and to highlight places where good software could bring great improvements in efficiency and ease of use. The steps of the use cases should be considered suggestive rather than prescriptive.

<i>Primary Actor</i>	<i>Use Cases</i>
Patron	Patron Requests
Library Staff	Broad Search Utility
Library Staff	Simple Search Utility
Library Staff	Delete Item Record
Library Staff	Import Bibliographic Record
Library Staff	Add Item Records
Library Staff	Create and Send Order Record

4.2 Patron Requests

Use Case ID:	USE-001		
Use Case Name:	Patron Requests		
Created By:	Lucien Kress	Last Updated By:	Lucien Kress
Date Created:	02/29/08	Date Last Updated:	02/29/08

Actors:	Patron
Description:	Patron requests new material for the Library to purchase.
Trigger:	Patron does not find what s/he wants in the Library catalog.
Preconditions:	<ol style="list-style-type: none"> 1. Patron is using the Library website. 2. Patron finds the materials request web form.
Postconditions:	<ol style="list-style-type: none"> 1. Patron request is stored in a selection list, along with Patron identification and contact information. 2. Patron receives verification that request is being processed. 3. ILL staff review selection list and determine whether to request the item through OCLC or refer the item to Acquisitions. 4. Patron receives notification of status changes as request is being processed (e.g. “under consideration”, “ordered”, “on hold”). 5. Patron can track process in patron account record.
Normal Flow:	<ol style="list-style-type: none"> 1. The web form prompts for Patron identification; Patron types library card number and PIN and submits web form. 2. The system authenticates Patron and displays Patron contact information; Patron makes any necessary changes and submits web form. 3. The web form prompts for ISBN/ISSN, title, author, format, publisher, year of publication; Patron types as much information as desired and submits web form. 4. The system does a broad search (OCLC? Amazon?) for the item and displays likely titles to the Patron; the Patron selects the desired title. 5. The system searches the Library catalog for the item; if found, the item is displayed to the Patron with an option to request the item as a hold. 6. The system stores the request in a selection list, stores information about the request in the Patron record, displays an acknowledgement page to Patron, and emails an acknowledgement to Patron if an email address is available.
Alternative Flows and Exceptions:	<ol style="list-style-type: none"> 1. If Patron cannot be authenticated, the system provides an option to edit information the patron has already entered, or contact a Librarian. 2. If Patron has blocks on his/her account (e.g. excessive fines, too many items on hold, etc.), the system displays a status page and provides an option to contact a Librarian. 3. If system cannot find the requested item, the system displays a

	<p>status page and provides an option to edit information the patron has already entered, or contact a Librarian.</p> <p>4. If Patron abandons the process before it is completed, the system adds a note to the Patron record and deletes any information about the item.</p>
Includes:	This case may use the mechanisms of the search utility described in USE-002.
Priority:	3 (High)
Frequency of Use:	5000 times per month
Business Rules:	Patrons are limited to X outstanding holds at a time; they should not be able to request new material if they are at the holds limit.
Assumptions:	
Notes and Issues:	

4.3 Broad Search Utility

Use Case ID:	USE-002		
Use Case Name:	Broad Search Utility		
Created By:	Lucien Kress	Last Updated By:	Lucien Kress
Date Created:	02/29/08	Date Last Updated:	02/29/08

Actors:	Library Staff (e.g. Selector, but could be any of a number of roles in the Acquisitions, Cataloging, or Circulation workgroups)
Description:	Selector initiates and completes a search for an item, with a wide range of search term options and search targets.
Trigger:	Selector needs to locate information about an item.
Preconditions:	None
Postconditions:	<ol style="list-style-type: none"> Selector has a search result that can be saved to a bibliographic record or selection list, copied into the Windows clipboard, printed, or abandoned.
Normal Flow:	<ol style="list-style-type: none"> Selector clicks a “Broad Search Utility” button (actual text to be determined). System displays a search form, providing fields for ISBN/ISSN, title, author, format, publisher, date of publication, and keywords. Options are preselected according to the Selector’s preference settings, or default to those selected in the last search. Selector types as much information as desired. System displays checkboxes to search local catalog, OCLC, Amazon, and selected vendors. Options are preselected according to the Selector’s preference settings, or default to those selected in the last search. (Vendors can be added to search configuration as APIs become available.) Selector selects desired search targets and submits search form. System provides search results in a list that can be sorted by any column; search results include all searchable fields as well as additional configurable fields, such as cover art, table of contents link, similar titles links, etc. Selector selects items from search results via checkbox and clicks “Limit to Selected Items” (actual text to be determined). System displays selected items only and provides options to save results into a bibliographic record or selection list, copy items to Windows clipboard, print items, or abandon search.
Alternative Flows and Exceptions:	<ol style="list-style-type: none"> If system does not find any search results, it displays a status page and provides options to broaden search and add additional search targets or to abandon search.
Includes:	
Priority:	3 (High)
Frequency of Use:	50 times per day

Business Rules:	
Assumptions:	<ol style="list-style-type: none">1. This utility is heavily dependent on the existence and quality of a vendor's API.2. The system must support adding additional search targets through a user-friendly interface, as vendors develop new or improved APIs.3. Saving a search result to a selection list creates a (possibly incomplete) bibliographic record by default.
Notes and Issues:	

4.4 Simple Search Utility

Use Case ID:	USE-003		
Use Case Name:	Simple Search Utility		
Created By:	Lucien Kress	Last Updated By:	Lucien Kress
Date Created:	02/29/08	Date Last Updated:	02/29/08

Actors:	Library Staff (e.g. Selector, but could be any of a number of roles in the Acquisitions, Cataloging, or Circulation workgroups)
Description:	Selector initiates and completes a search for an item, with a “simple”, no-frills interface.
Trigger:	Selector needs to locate information about an item for which Selector has ISBN, ISSN, or title (i.e. a “known item”).
Preconditions:	None
Postconditions:	<ol style="list-style-type: none"> 1. Selector has a search result that can be saved to a bibliographic record or selection list, copied into the Windows clipboard, printed, or abandoned.
Normal Flow:	<ol style="list-style-type: none"> 1. Selector clicks a “Quick Search” button (actual text to be determined). 2. System displays a search form, providing a single field for ISBN, ISSN, or title. Selector types full or partial search term. 3. System displays checkboxes to search local catalog, OCLC, Amazon, and selected vendors. Options are preselected according to the Selector’s preference settings, or default to those selected in the last search. (Vendors can be added to search configuration as APIs become available.) Selector selects desired search targets and submits search form. 4. System provides search results in a list that can be sorted by any column; search results include all searchable fields as well as additional configurable fields, such as cover art, table of contents link, similar titles links, etc. Selector selects items from search results via checkbox and clicks “Limit to Selected Items” (actual text to be determined). 5. System displays selected items only and provides options to save results into a bibliographic record or selection list, copy items to Windows clipboard, print items, or abandon search.
Alternative Flows and Exceptions:	<ol style="list-style-type: none"> 1. If system does not find any search results, it displays a status page and provides options to broaden search and add additional search targets or to abandon search.
Includes:	
Priority:	3 (High)
Frequency of Use:	100+ times per day
Business Rules:	
Assumptions:	<ol style="list-style-type: none"> 1. The system must support adding additional search targets through a user-friendly interface, as vendors develop new or improved APIs.

	2. Saving a search result to a selection list creates a (possibly incomplete) bibliographic record by default.
Notes and Issues:	

4.5 Delete Item Record

Use Case ID:	USE-004		
Use Case Name:	Delete Item Record		
Created By:	Lucien Kress	Last Updated By:	Lucien Kress
Date Created:	02/29/08	Date Last Updated:	02/29/08

Actors:	Library Staff (e.g. Library Technician II, but could be any of a number of roles in the Acquisitions or Cataloging workgroups)
Description:	Technician deletes item record(s) from a bibliographic record.
Trigger:	One or more item records need to be deleted.
Preconditions:	1. Technician has the necessary privileges to delete item records.
Postconditions:	1. Item record has been deleted. 2. If it was the last item record on a bibliographic record, Technician received visual alert. 3. Bibliographic record remains unaffected.
Normal Flow:	1. Technician clicks the “Delete Item Record” button. 2. System displays dialog box with a prompt to scan or type item barcode, or click Cancel button to abort. Technician scans barcode. 3. System adds item to deletion queue, and redisplay dialog box with a prompt to scan or type another item barcode, or click Cancel button to abort, or click Submit button to finish and delete item records. Technician scans additional barcodes until finished, then clicks Submit. 4. System displays a prompt, “Are you sure you want to delete these item records”; Technician clicks “Yes”. Note: this prompt can be disabled per user or per session. 5. System deletes item records and records deletion statistics (date/time, user, item) to a log file.
Alternative Flows and Exceptions:	1. If there are no more item records attached to the current bibliographic record, the system displays a dialog box, “Last item for this title; are you sure you want to delete it?” Technician clicks “Yes” or “No”. 2. If last item is deleted, system adds “naked” bibliographic record to a selection list for later review and possible deletion.
Includes:	
Priority:	3 (High)
Frequency of Use:	1000-5000 times per day
Business Rules:	
Assumptions:	
Notes and Issues:	System may require different privileges to delete bibliographic records than to delete item records. Do we want the ability for a non-privileged user to mark a bibliographic record for deletion (but require a privileged user to actually delete it)?

4.6 Import Bibliographic Record

Use Case ID:	USE-005		
Use Case Name:	Import Bibliographic Record		
Created By:	Lucien Kress	Last Updated By:	Lucien Kress
Date Created:	02/29/08	Date Last Updated:	02/29/08

Actors:	Library Staff (e.g. Library Technician II, but could be any of a number of roles in the Acquisitions or Cataloging workgroups)
Description:	Technician imports a bibliographic record from OCLC or another vendor.
Trigger:	A bibliographic record needs to be imported.
Preconditions:	<ol style="list-style-type: none"> 1. Technician has the necessary privileges to create bibliographic records. 2. Technician has the necessary privileges to access records in a vendor's database.
Postconditions:	<ol style="list-style-type: none"> 1. A new bibliographic record exists.
Normal Flow:	<ol style="list-style-type: none"> 1. Technician searches for an item using the process described in USE-002. 2. The system displays search results; if a matching item already exists in the Library catalog (e.g. a short bib record), Technician may select it to update it with a new record. Technician also selects the desired vendor record and clicks "Save Bibliographic Record". 3. If a local catalog result is selected, system prompts "Overlay existing record?" Technician clicks "Yes". 4. System creates or overlays new record, preserving any fields that are not included in the new record, and displays new record with options to "Save" or "Discard". Technician clicks "Save".
Alternative Flows and Exceptions:	<ol style="list-style-type: none"> 1. If no local record is selected, system skips the "Overlay existing record" prompt and displays the new record. Technician clicks "Save". 2. If Technician selects "Discard" to abort import, the system deletes the new record and retains the existing local catalog record, if any.
Includes:	USE-002.
Priority:	3 (High)
Frequency of Use:	100+ times per day
Business Rules:	
Assumptions:	
Notes and Issues:	

4.7 Add Item Records

Use Case ID:	USE-006		
Use Case Name:	Add Item Records		
Created By:	Lucien Kress	Last Updated By:	Lucien Kress
Date Created:	02/29/08	Date Last Updated:	02/29/08

Actors:	Library Staff (e.g. Library Technician I, but could be any of a number of roles in the Acquisitions or Cataloging workgroups)
Description:	Technician attaches item records to an existing bibliographic record.
Trigger:	Technician receives new item (or old item with new barcode) to add to catalog.
Preconditions:	<ol style="list-style-type: none"> 1. A bibliographic record exists. 2. Technician has necessary privileges to add item records. 3. Technician has new item (or old item with new barcode) in hand.
Postconditions:	<ol style="list-style-type: none"> 1. New item record exists.
Normal Flow:	<ol style="list-style-type: none"> 1. Technician locates and displays bibliographic record and clicks "Add Item(s)". 2. System displays a form prompting for number of items (default 1) and item fields; Technician enters number of items and any default item field values, and clicks "OK". 3. System displays a form prompting to scan or type next barcode and any non-default item field values, also displaying the number of remaining items to scan and "OK" and "Abort" buttons. Technician types non-default item field values (if any) and scans or types item barcode. (If scanning, no need to click "OK".) 4. When final item is scanned, system displays item record list in bibliographic record.
Alternative Flows and Exceptions:	<ol style="list-style-type: none"> 1. Technician may enter an arbitrarily high number (e.g. 1000) in step 2, in order to scan an unknown number of items. 2. If Technician clicks "Abort" during item entry, system provides options to save or abandon items already entered.
Includes:	
Priority:	3 (High)
Frequency of Use:	500+ times per day
Business Rules:	
Assumptions:	
Notes and Issues:	Most items are received in multiple copies, and it may be more effective to set the default number of items to some number larger than one. There should be an option to change the default number in system-level or user-level configurations.

4.8 Create and Send Order Record

Use Case ID:	USE-007		
Use Case Name:	Create and Send Order Record		
Created By:	Lucien Kress	Last Updated By:	Lucien Kress
Date Created:	02/29/08	Date Last Updated:	02/29/08

Actors:	Library Staff (e.g. Library Technician 2, but could be any of several roles in the Ordering workgroup).
Description:	Technician creates an order record and transmits it to vendor.
Trigger:	Technician receives an order request from a Selector.
Preconditions:	<ol style="list-style-type: none"> 1. Technician has necessary privileges to create order records. 2. Technician has necessary privileges to upload order records to vendors. 3. A bibliographic record for the desired item either already exists, or has been created (possibly as a short record) by Ordering staff.
Postconditions:	<ol style="list-style-type: none"> 1. A new order record exists, and vendor has received order request.
Normal Flow:	<ol style="list-style-type: none"> 1. Technician locates bibliographic record and clicks “Order Copies”. 2. System displays order form with available bibliographic information filled in; Technician adds number of copies, fund, vendor, distribution formula, processing instructions, and additional information as needed, and clicks “Submit”. 3. System displays order summary; Technician toggles option to “Send Immediately” or “Add to Queue” and clicks “Confirm”. 4. System sends order file in EDIFACT format, or adds order file to queue, and displays order record.
Alternative Flows and Exceptions:	<ol style="list-style-type: none"> 1. When Selector provides order request in the form of an ILS or vendor selection list, Technician can view list, select some or all items, add additional information, and click “Order” to automate the creation and sending of order records. 2. When ordering from a selection list, system shows an order summary that highlights and allows addition of any missing information (e.g. number of copies, fund, vendor, distribution formula, processing instructions, etc.). 3. When orders are placed in a queue, they can be reviewed and modified before sending.
Includes:	
Priority:	3 (High)
Frequency of Use:	300+ times per day
Business Rules:	
Assumptions:	
Notes and Issues:	We would like to be able to do all selection and ordering from one local interface, rather than depending on individual vendor

	<p>websites and vendor selection lists. This requires better APIs from the vendors, but we want to keep facing in that direction. As vendors provide “one-click” services, we want to be able to add support for those services.</p>
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Software Requirements Specification

for the

Cataloging Module

of an

Integrated Library System

Version 3.1 final

Prepared by Lori Ayre and Lucien Kress

Galecia Group

September 16, 2008

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Revision History

Name	Date	Reason For Changes	Version
Lucien Kress	6/25/08	Initial Draft	1.0 draft
Lucien Kress	7/17/08	Revisions, Cataloging Team	2.0 draft
Lucien Kress	8/28/08	Revisions, Requirements workshop	3.0 draft
Lucien Kress	9/16/08	Revisions, Cataloging Team	3.1 draft

1. Introduction

1.1 Purpose and Perspective

This Software Requirements Specification (SRS) describes the functional and nonfunctional requirements for the Cataloging Module of an Integrated Library System (ILS). The requirements were developed specifically for King County Library System, but are believed to be suitable for many large, urban, multiple-branch, centralized library systems.

The requirements in this SRS presuppose the general data structures and functionality of a full-fledged ILS. The Cataloging Module will replace and enhance the current capabilities of commercially available ILSes, as well as add new functionality.

1.2 Product Scope and Features

The Cataloging Module facilitates the creation and management of bibliographic records in support of the collections of the King County Library System. Specifically, the Cataloging Module supports the following activities, among others:

- Creating and editing bibliographic, item, and authority records.
- Importing bibliographic and authority records from external vendors such as OCLC, and exporting bibliographic and authority records in a variety of formats.
- Validating bibliographic records against authority records, both local and external.
- Specifying and creating indexes on bibliographic record fields.
- Searching for bibliographic and authority records.
- Generating queries and reports to support the creation, management, and validation of bibliographic records.

The current specification presupposes the general functionality of an ILS and specifies only those requirements that directly or indirectly relate to Cataloging activities. King County Library has previously published specifications for Acquisitions and Serials Management and Circulation modules. Requirements for OPAC, web services, and management reporting are currently under development.

Moreover, the current specification is focused on functional characteristics of a Cataloging Module. Data structures and user interfaces will require further specification and development using an iterative, prototype-oriented software development methodology.

1.3 Intended Audience

This SRS is intended both for library managers and staff who may contribute additional requirements or commentary, and for software project managers and developers who will implement the requirements. As such, it aims for a high level of readability for a non-technical audience, while providing enough specificity to be useful to a software developer.

It is assumed that when software development occurs, it will be in a highly collaborative and iterative environment in which end-users have multiple opportunities to review prototypes and refine the user interface and software functionality.

It is also assumed that the reader has a general understanding of Library services and processes and does not require definition of common Library terminology.

1.4 Document Conventions

The SRS includes requirements, process flowcharts, and use cases. Requirements include a reference to a process flowchart where appropriate. Flowcharts generally indicate the current approach to Cataloging processes at King County Library System, and should be considered to give contextual information rather than to prescribe or constrain new software development.

Use cases are included for some of the most frequently performed activities. They are intended to supplement the requirements and highlight activities that offer a great potential for increased efficiency and ease of use. Again, they should be considered to be contextual rather than prescriptive.

1.5 User Classes and Characteristics

Patron	A Patron is a customer of King County Library System, either possessing a library card or not, either on site of a community library or not, using either print materials, media materials, or electronic resources.
Cataloging Staff	Cataloging Staff include managers, librarians, library technicians, library assistants, and library pages who are involved with receiving, cataloging, and processing items.
Cataloging Managers	Cataloging Managers include management staff who oversee the Cataloging processes.
Library Managers	Library Managers include Cluster and Site Managers who provide input to the Cataloging processes and receive bibliographic records from the Cataloging processes.
Library Directors	Library Directors include members of the Library Executive Team who plan and direct Library services and priorities.

1.6 Operating Environment

- OE-1: The Cataloging Module supports the needs of a large, multiple-branch library system. Specifically, the system must support a library system with 50 locations, 20 million circulations, purchasing and processing over 500,000 items per year. The Cataloging Department creates over 40,000 bibliographic records per year. It is highly desirable that searches and reports can be processed during open hours without disrupting other system functions.
- OE-2: The Cataloging Module shall operate on a Linux or Solaris server.
- OE-3: The Cataloging Module shall be accessible through a web-browser or a Windows-compatible client.
- OE-4: If web-browser based, the Cataloging Module shall be accessible through Microsoft Internet Explorer (v.6.0 and later) and Mozilla Firefox (v.2.0 and later).

- OE-5: The Cataloging Module shall be accessible with screen-reading software, screen-magnification software, and other software programs designed to increase accessibility.

1.7 Design and Implementation Constraints

- CO-1: The Cataloging Module shall use a fully relational database back-end.
- CO-2: The Cataloging Module shall produce standards-compliant HTML.
- CO-3: The Cataloging Module shall provide a development and training environment with the ability to migrate configurations to a production environment.
- CO-4: User rights and privileges will be controlled through security groups and/or “roles” that allow access control for individuals, workgroups, and arbitrary staff groups.
- CO-5: These requirements shall not constrain functionality or features of the Online Public Access Catalog (OPAC) module.

1.8 User Documentation

- UD-1: The software developer shall provide complete data specifications for authority records, bibliographic records, order records, item records, hold/request records, and other records maintained or accessed by the Cataloging Module.
- UD-2: The software developer shall provide a thorough high-level description of major processes, including bibliographic record import and export, validation of bibliographic records against internal and external authority sources, and standard reports.
- UD-3: The system shall provide an online, hierarchical, and cross-linked help system in HTML that describes and illustrates all system functions.

1.9 Assumptions and Dependencies

- AS-1: The Cataloging Module is part of an enterprise-level Library Automation System.
- AS-2: Cataloging processes are consolidated at a central location, and accept input and provide services to multiple locations.
- DE-1: The Cataloging Module relies on the data structures and functionality of an enterprise-level Library Automation System, including an Acquisitions module.
- DE-2: The Cataloging Module interfaces with a variety of vendor websites, via published APIs and/or automated transfer of standard-format data files (e.g. USMARC21, EDIFACT).
- DE-3: The Cataloging module interacts with a patron interface, also known as an Online Public Access Catalog (OPAC), providing output in the form of bibliographic records and holdings information.
- DE-4: The bibliographic data structure shall include hooks or connectors to data sets other than those created by Catalogers, e.g. staff or patron ratings, book reviews, tags, etc.
- DE-5: Note that approximately 25 of the requirements included here are also included in the specifications for the Acquisition or Circulation modules.

System Requirements

Category: General System Characteristics

Req ID: 2492	Source: ACQ	Priority: 2
Name: individual and shared staff login accounts		
Description: Support for individual and shared staff login accounts; access to modules is granted by use of "roles" or "privileges" that allow each account to access as many (or as few) modules as needed. Individual logins allow user-level preferences and audit trail.		
Related Reqs: 5514		Related Process
Req ID: 2120	Source: CAP	Priority: 2
Name: materials receiving/cataloging process		
Description: All staff involved in receiving/cataloging workflow should be able to process information from the same interface. (E.g. selecting, ordering, unpacking, receiving/cataloging, invoicing, etc.).		
Related Reqs: 2108		Related Process
Req ID: 1701	Source: CAP	Priority: 3
Name: compatibility with evolving standards		
Description: System must support evolving cataloging standards such as Functional Requirements for Bibliographic Records (FRBR) and Resource Description and Access (RDA).		
Related Reqs:		Related Process
Req ID: 1732	Source: CAP	Priority: 3
Name: US MARC 21 standards		
Description: Fully implement US MARC 21 standards.		
Related Reqs:		Related Process

Req ID: 1727	Source: CAP	Priority: 1
Name: MARC format updates		
Description: MARC formats are supported in a way that allows timely implementation of new rules or changes.		
Related Reqs:		Related Process
Req ID: 1691	Source: CAP	Priority: 3
Name: ALA extended character set support		
Description: Ability to import, export, store, retrieve, edit, search, index, and display records and indexes that use the ALA extended character set (aka ANSEL or ANSI/NISO Z39.47).		
Related Reqs: 5516		Related Process
Req ID: 1713	Source: CAP	Priority: 3
Name: MARC field support		
Description: Ability to index, limit, sort, and report on all MARC fixed and variable fields and subfields.		
Related Reqs:		Related Process
Req ID: 5278	Source: CIR	Priority: 3
Name: suppression rules		
Description: System provides customizable 'Rules of Suppression' that specify whether patrons and staff can view authority, bibliographic, order, and item records in staff and public (OPAC) interfaces. Records may be visible to specific workgroups only; to all staff and patrons at specific locations; or to all staff and all patrons. (See REQ-5057 for related requirements on loan rules, and REQ-5190 for related requirements on holdability.)		
Related Reqs: 5057 5190 580		Related Process CAT180
Req ID: 5519	Source: CAP	Priority: 2
Name: record preview window		
Description: Ability to preview individual records in MARC format by highlighting each line in a browse list.		
Related Reqs:		Related Process

Req ID: 5512	Source: CAP	Priority: 2
Name: annotated card subject headings		
Description: Ability to support a children's catalog using LC annotated card subject headings.		
Related Reqs:		Related Process

Req ID: 5540	Source: CAP	Priority: 2
Name: delete and restore records		
Description: Ability to delete all record types singly or via batch processing, with capability to recover or restore deleted data.		
Related Reqs: 1633		Related Process

Req ID: 2255	Source: CAP	Priority: 2
Name: printer compatibility		
Description: Compatible with Zebra Z4M thermal transfer printers (for printing spine labels).		
Related Reqs: 2256 4101		Related Process PRO030

Req ID: 2256	Source: CAP	Priority: 1
Name: computype compatibility		
Description: Compatible with Computype spine label printer system (via generaic text-only printer). (Note: REQ-4101 specifies a completely configurable label, which would obviate the need for the Computype system.)		
Related Reqs: 2255 4101		Related Process

Category: Staff Interface

Req ID: 1710 **Source:** CAP **Priority:** 3**Name:** bibliographic records editing**Description:** Full screen editing of bibliographic records. Staff can easily copy, cut and paste data; move fields up or down within record; insert a row within a target field; insert subfields by typing within a field; add fixed field values by clicking within the fixed field and typing the value or selecting from a menu of valid choices. The staff interface will provide standard word-processing features such as full-screen editing, macros, spell-checking, and find and replace.**Related Reqs:** 5518**Related Process** CAT030

Req ID: 1733 **Source:** CAP **Priority:** 2**Name:** windows style menus**Description:** Provide standard Windows-like menu options in record editing windows. For example, menu options might include File (Open, Save, Save As, Print, Print Setup, Page Setup), Edit (Find, Replace, Copy, Cut, Paste, Select All, Delete), Actions (Import, Export, Print Spine Labels, Create Reports, etc.), Tools (Macros, Shortcut Keys, Export/Import Options, Customize Toolbar, Preferences, etc.), Window (Tile Horizontally, Tile Vertically, list of current windows), and Help (application help and custom help links, e.g. MARC21).**Related Reqs:****Related Process**

Req ID: 2490 **Source:** ACQ **Priority:** 1**Name:** menu options require permissions**Description:** Menu options require credentials/authorization. Menu options without correct credentials are greyed out.**Related Reqs:****Related Process**

Req ID: 2220	Source: ACQ	Priority: 3
Name: keyboard macros and shortcuts		
Description: System supports administrator-programmable and user-programmable macros and/or keyboard shortcuts. Shortcut keys may be assigned to macros (e.g. 'Insert Field') or to text strings. Macros are centrally managed on server, can be imported from and exported to individual users, and can be restricted for use and/or editing through centrally-managed permissions.		
Related Reqs:		Related Process

Req ID: 1703	Source: CAP	Priority: 3
Name: custom toolbars		
Description: Staff can create a customized toolbar of icons used for editing and cataloging functions, such as Insert Row, Delete Row.		
Related Reqs:		Related Process

Req ID: 2276	Source: CAP	Priority: 3
Name: view and edit multiple records		
Description: Ability to view two or more records simultaneously, aligned either horizontally or vertically. Ability to copy and paste between records.		
Related Reqs: 1733		Related Process CAT030

Req ID: 1731	Source: CAP	Priority: 3
Name: tabbing		
Description: Ability to tab through fields while creating and editing all record types (e.g. bibliographic, item, order, patron, etc.).		
Related Reqs:		Related Process CAT030

Req ID: 5521	Source: CAP	Priority: 2
Name: default cursor location		
Description: Allow systemwide and per-user setting of default tab order in search and editing screens. For example, user may select which search field the cursor is in at the beginning of a new search.		
Related Reqs:		Related Process

Req ID: 5513	Source: CAP	Priority: 1
Name: field typeover mode		
Description: System defaults to typeover mode in specified fields (e.g. 006, 007, 008, numeric and indicator fields).		
Related Reqs:		Related Process

Req ID: 5539	Source: CAP	Priority: 2
Name: highlight incorrectly entered fields		
Description: Fixed and variable fields are highlighted when required and not entered, and when entered incorrectly.		
Related Reqs:		Related Process CAT030

Req ID: 5515	Source: CAP	Priority: 1
Name: highlight changed fields		
Description: Ability to display edited fields in a highlighted color until changes are saved.		
Related Reqs:		Related Process CAT030

Req ID: 5522	Source: CAP	Priority: 1
Name: bookmarklets		
Description: Ability to create links to external resources (e.g. allmusic.com, imdb.com) in the staff interface. Links will act like bookmarklets, taking values from search fields and performing a search against the target website.		
Related Reqs:		Related Process CAT010

Req ID: 5525	Source: CAP	Priority: 2
Name: URLs are clickable		
Description: URLs in bibliographic and item records are clickable, and launch in a new web-browser window when clicked.		
Related Reqs:		Related Process CAT030

Req ID: 5527	Source: CAP	Priority: 3
Name: line wrapping in notes fields		
Description: Notes and long text fields should line wrap automatically during creation and editing.		
Related Reqs:		Related Process CAT030

Req ID: 5530	Source: CAP	Priority: 3
Name: validation of indexable fields via authority files		
Description: Provide real-time validation of authority-specified fields against specified authority files, including local and imported authority files. Ideally, ability to include external authority file sources via API.		
Related Reqs: 5529		Related Process CAT060

Req ID: 5529	Source: CAP	Priority: 3
Name: validation of indexable fields via browse list		
Description: Provide easy validation of indexable fields, with ability to open a browse list of adjacent index values, including authorized headings which are easily distinguishable from other index values, and select a new value.		
Related Reqs: 5530		Related Process CAT060

Req ID: 5523	Source: CAP	Priority: 1
Name: authority files: public visibility		
Description: Provide read-only access to selected authority files through the public interface.		
Related Reqs:		Related Process

Req ID: 5524	Source: CAP	Priority: 2
Name: authority records: blind references		
Description: System configuration option to display, highlight, or hide blind references (e.g. authority records for which there are no items in the catalog). For example, a library may choose to highlight blind references in the staff interface, and hide them in the public interface.		
Related Reqs:		Related Process

Category: Batch Processes and Global Update

Req ID: 1712 **Source:** CAP **Priority:** 3

Name: globally update record fields and subfields

Description: Ability to globally update all fixed and variable fields and subfields in all types of records via search indexes or preselected record sets (i.e. query results).

Related Reqs: 1697 **Related Process**

Req ID: 2274 **Source:** CAP **Priority:** 3

Name: batch change item fields

Description: Ability to make batch changes to any field or combination of fields (e.g. shelving location, price) in all or selected item records attached to a single bibliographic record.

Related Reqs: 2275 **Related Process**

Req ID: 2275 **Source:** CAP **Priority:** 3

Name: item location codes in separate fields

Description: Provide separate fields for branch identification, reading level (e.g. adult, juvenile) and shelving location (e.g. fiction, DVD).

Related Reqs: 2274 **Related Process**

Category: Import / Export

Req ID: 1720 **Source:** CAP **Priority:** 3

Name: OCLC Connexion interface

Description: Full compatibility with OCLC Connexion for searching bibliographic and authority records, creating and editing bibliographic records, and importing records to system (with or without overlaying) via OCLC's Gateway Interface.

Related Reqs: **Related Process** CAT110

Req ID: 1716 **Source:** CAP **Priority:** 3

Name: MARC import/export

Description: MARC bibliographic and authority records can be imported and exported, singly and in batch, all fields or selected fields, to and from vendors including OCLC. Imported records can overlay existing short or full bibliographic records. Imported batches can be maintained and manipulated as selection lists (see REQ-3004).

Related Reqs: 3004 **Related Process** CAT180

Req ID: 1705 **Source:** CAP **Priority:** 3

Name: importing to catalog: profiles and defaults

Description: Ability to create profiles with default settings (e.g., settings for field selection, field indexing, specific values to add to all records) for importing and exporting single and multiple records. Profiles must include the ability to flag fields in authority or bibliographic records in order to protect them from being overlaid or replaced during manual or batch loads of records.

Related Reqs: **Related Process** CAT180

Category: Authority Records

Req ID: 1729 **Source:** CAP **Priority:** 3

Name: authority records: searching and editing

Description: Allow staff to directly search and browse authority records; allow only cataloging staff to edit authority records.

Related Reqs: **Related Process**

Req ID: 1694 **Source:** CAP **Priority:** 2

Name: authority record overlay

Description: Authority module capable of overlaying updated authority records based on the MARC 010 or MARC 001 field of the authority record.

Related Reqs: 1705 **Related Process**

Req ID: 5505 **Source:** CAP **Priority:** 1

Name: authority record coding

Description: Recognize authority record coding for name and subject use, and automatically load into one or more appropriate indexes based on coding.

Related Reqs: 5507 **Related Process**

Req ID: 5507 **Source:** CAP **Priority:** 1

Name: authority records: indexing

Description: Ability to save a single authority record to multiple indexes simultaneously.

Related Reqs: 5505 **Related Process**

Req ID: 5533 **Source:** CAP **Priority:** 2

Name: authority record modifications

Description: Ability to recognize duplicate, updated, and split authority records as marked by vendor.

Related Reqs: **Related Process**

Req ID: 5503	Source: CAP	Priority: 1
Name: authority records: deleting		
Description: Ability to process authority record deletions automatically, based on 'delete' status field.		
Related Reqs:		Related Process
Req ID: 5510	Source: CAP	Priority: 1
Name: import authority records with bibliographic records		
Description: Automatically include relevant authority records when importing bibliographic records.		
Related Reqs:		Related Process CAT180
Req ID: 5532	Source: CAP	Priority: 3
Name: support authority processing vendor APIs		
Description: Ability to support APIs of authority processing vendors, as they become available.		
Related Reqs:		Related Process
Req ID: 5534	Source: CAP	Priority: 2
Name: automatic authority processing		
Description: System supports automatic authority processing, whereby records are authenticated and marked for further attention. Library may specify authority sources to authenticate against, including an external authority processing vendor and local authority files. Library may specify how records are overlaid during updating process. Library may specify rules for marking or highlighting records that meet or fail to meet certain criteria, e.g. records with unique headings, records with new headings, and records that match a 'see from' (4XX) or 'see also from' (5xx) reference in an authority record).		
Related Reqs:		Related Process
Req ID: 5531	Source: CAP	Priority: 1
Name: generate list of local authority records		
Description: Ability to generate a list of locally created authority records.		
Related Reqs: 5504		Related Process

Req ID: 5504

Source: CAP

Priority: 1

Name: local authority records

Description: Ability to validate locally-created authority records against the Library of Congress Name and Subject Authority Files.

Related Reqs: 5529 5530 553

Related Process

Category: Bibliographic Records

Req ID: 5535	Source: CAP	Priority: 2
Name: display all attached records		
Description: Ability to display all individual records attached to a bibliographic record, including order records, item records, hold records, etc.		
Related Reqs:		Related Process CAT030
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Req ID: 5518	Source: CAP	Priority: 1
Name: bibliographic record: holds flag		
Description: Bibliographic record displays a flag if the record has holds. Flag is visible when the record is in edit mode.		
Related Reqs: 1710		Related Process CAT030
<hr/>		
Req ID: 1707	Source: CAP	Priority: 2
Name: display MARC tags in original order		
Description: Ability to display MARC tags in bibliographic records in input order instead of numerical order.		
Related Reqs:		Related Process CAT030
<hr/>		
Req ID: 1692	Source: CAP	Priority: 3
Name: bibliographic record MARC indicator		
Description: Ability to fully utilize MARC indicator functionality with regard to indexing and display of information.		
Related Reqs:		Related Process
<hr/>		
Req ID: 5517	Source: CAP	Priority: 2
Name: material type codes		
Description: Support unlimited number of user-definable material type codes, values, and indexes (e.g. book, music CD, online resource, etc.).		
Related Reqs:		Related Process

Req ID: 5281	Source: CIR	Priority: 3
Name: bibliographic record: catalog add date		
Description: Bibliographic record includes a field for the date the title was added to the catalog.		
Related Reqs:		Related Process CAT030

Req ID: 5508	Source: CAP	Priority: 2
Name: earliest date sort		
Description: Ability to sort bibliographic records by earliest date; i.e., sort by Date 2 fixed field and then, if no Date 2 is present, by Date 1 fixed field.		
Related Reqs:		Related Process

Req ID: 2289	Source: CAP	Priority: 1
Name: duplicate 092 fields		
Description: Alert cataloging staff if there are two 092 (call number) fields.		
Related Reqs:		Related Process

Req ID: 5514	Source: CAP	Priority: 2
Name: bibliographic record audit trail		
Description: Ability to track history of bibliographic record editing, including username and date of editing.		
Related Reqs: 2492		Related Process CAT030

Req ID: 5516	Source: CAP	Priority: 2
Name: diacritics and special characters		
Description: Provide clear and simple tools for entering and editing diacritics and special characters.		
Related Reqs: 1691		Related Process CAT030

Req ID: 5520	Source: CAP	Priority: 1
Name: URL checker		
Description: Provide a utility to automatically check all URLs found in bibliographic and item records. Provide an interface for checking and correcting invalid URLs identified by the utility.		
Related Reqs:		Related Process

Req ID: 5537	Source: CAP	Priority: 2
Name: recent record list		
Description: System provides a list of recently viewed bibliographic records and provides one-click access.		
Related Reqs:		Related Process CAT010

Req ID: 2495	Source: ACQ	Priority: 3
Name: transfer records between bibliographic records		
Description: Ability to transfer item records, order records, and holds from one bibliographic record to another (e.g. when duplicate records are merged).		
Related Reqs: 2282		Related Process CAT030

Req ID: 5526	Source: CAP	Priority: 3
Name: serials: volume control		
Description: System provides a flexible and precise way to catalog and control serial items, such as magazines, encyclopedias, television series, serial novels, etc. The serial title, volume/year, and issue/episode must be stored in a way that 1) provides holdings information in a clear and readable way, 2) makes the sequence of issues/episodes clear, 3) allows patrons to request specific titles, volumes, or issues, and 4) can be updated in a non-labor-intensive way.		
Related Reqs: 2143, 2279, 22		Related Process

Req ID: 2282	Source: CAP	Priority: 2
Name: copy patron holds queues		
Description: Ability to copy patron holds queues and transfer to another bibliographic record.		
Related Reqs: 2495		Related Process CAT030

Req ID: 1721	Source: CAP	Priority: 1
Name: multiple volume sets		
Description: Ability to organize and control multiple copies of multi-volume sets and serials holdings, facilitating circulation either individually or as a group, as defined by the bibliographic record.		
Related Reqs: 2218		Related Process

Category: Item Records

Req ID: 2143	Source: SER	Priority: 2
Name: unlimited items per bibliographic record		
Description: Ability to add unlimited items to a single bibliographic record. For example, this is important for magazine titles that may comprise thousands of items per year.		
Related Reqs: 2279, 2280, 55		Related Process
Req ID: 2278	Source: CAP	Priority: 3
Name: attach single and multiple items		
Description: Ability to attach single and multiple items to a bibliographic record.		
Related Reqs:		Related Process
Req ID: 2279	Source: CAP	Priority: 2
Name: multiple volume set item records		
Description: At point of receiving, generate item records with sequential barcodes and volume designation for multi-volume sets.		
Related Reqs: 2143, 2280, 55		Related Process
Req ID: 4010	Source: CAP	Priority: 3
Name: receiving new item generates item records		
Description: New items are received into the system by scanning a barcode. Item records are created based on order record fields (e.g. item destination).		
Related Reqs:		Related Process REC030
Req ID: 3011	Source: ACQ	Priority: 2
Name: item receipt worksheet		
Description: Generate a worksheet from order record for each title received. Include author, title, call number, order date, number of copies, distribution instructions, and processing notes. Include space for adding date received and name of receiver. Ability to customize worksheet as needed.		
Related Reqs:		Related Process REC005

Req ID: 2108	Source: CAP	Priority: 3
Name: add order comments during receiving and cataloging		
Description: Ability to flag orders or add notes during the receiving and cataloging process; e.g. 'show to selector before receiving'.		
Related Reqs: 2120 2172		Related Process REC040

Req ID: 2284	Source: CAP	Priority: 3
Name: receive partial orders		
Description: Ability to update order records at receiving stage; ability to receive partial orders and unreceive orders; order record is updated automatically when balance of partial order is received.		
Related Reqs:		Related Process REC030

Req ID: 2280	Source: CAP	Priority: 3
Name: volume/date field in item record		
Description: Capability to record volume/date information in item records.		
Related Reqs: 2143, 2279, 55		Related Process

Req ID: 2271	Source: CAP	Priority: 2
Name: display holdings screen		
Description: Holdings screen accompanied by customizable brief bibliographic record display of any MARC field information, including but not limited to bibliographic record number, ISBN, call number, author, title, edition, publication information, and physical description.		
Related Reqs: 1704 2272 227		Related Process

Req ID: 2272	Source: CAP	Priority: 3
Name: customize item summary screen		
Description: Ability to customize summary screen to include any field, including but not limited to item record number, date due, location status, full barcode number, call number, volume/date. Ability to sort by multiple fields.		
Related Reqs: 1704 2271 227		Related Process

Req ID: 5288	Source: CIR	Priority: 3
Name: non-cataloged items		
Description: Branch staff can quickly add barcode numbers for non-cataloged items to existing bibliographic records (e.g. a generic bibliographic record for paperbacks).		
Related Reqs:		Related Process

Req ID: 5502	Source: CAP	Priority: 2
Name: place multiple item-level holds simultaneously		
Description: Ability for staff to simultaneously place item-level holds on all or selected copies attached to a single bibliographic record.		
Related Reqs:		Related Process

Category: Barcodes and Call Numbers

Req ID: 4102 **Source:** CAP **Priority:** 3

Name: barcodes

Description: The system must read and support barcodes as follows:
 1) Read 8, 10, and 14 digit barcodes.
 2) Support single and multiple barcodes.
 3) Assign sequential barcodes to a number of items.
 4) Support replacement barcodes.
 5) Transfer one or more barcodes between bibliographic records.

Related Reqs: **Related Process** REC030

Req ID: 5411 **Source:** CIR **Priority:** 2

Name: barcodes must be unique

Description: Item record barcodes and patron record barcodes must be unique. Alert staff when duplicate barcodes are entered, and prevent assignment of duplicate barcodes. (However, see REQ-5536 for the case of item records without barcodes.)

Related Reqs: 5536 **Related Process**

Req ID: 5536 **Source:** CAP **Priority:** 3

Name: items without barcodes

Description: System can store item records without barcodes.

Related Reqs: 5411 **Related Process**

Req ID: 2269 **Source:** CAP **Priority:** 2

Name: barcode scanning

Description: All modules support barcode scanning consistently; for example the existence of an auto-return suffix has the same effect in all modules.

Related Reqs: **Related Process**

Req ID: 5528	Source: CAP	Priority: 3
Name: call numbers: bibliographic and item level		
Description: Item record call number overrides bibliographic record call number when printing labels, paging lists, etc. Public interface displays item call number when present.		
Related Reqs:		Related Process CAT040

Req ID: 4101	Source: CAP	Priority: 3
Name: spine labels		
Description: Ability to create, format, and print spine labels, including: create a spine label based on item call number by default; modify spine label without altering item call number; print spine labels individually or queue to print in batch; spine labels have at least 6 lines of 16 characters per line at arial 10 bold. Ability to change font style, boldness, and font size as needed; change text alignment to center vertically and/or horizontally; change text orientation to horizontal or vertical on a line-by-line basis. Ability to print multiple copies of individual labels. Ability to create, save, modify, and use label templates.		
Related Reqs: 2255 2256		Related Process PRO030

Category: Searches, Queries, and Indexes

Req ID: 2202	Source: ACQ	Priority: 3
Name: flexible queries and reports		
Description: All queries and reports include the ability to sort, filter, and limit on any variable or fixed field or subfield in any record type (bibliographic, item, order, authority). Ability to search for records that fall within a range of values. Ability to save customized queries and output criteria for future use. Ability to retrieve last X queries to repeat search and/or save query permanently.		
Related Reqs:		Related Process
Req ID: 2306	Source: ACQ	Priority: 3
Name: wildcard searches		
Description: System supports wildcard searches and substring searches in all fields (including 'number' fields, e.g. isbn, upc, etc.).		
Related Reqs:		Related Process CAT010
Req ID: 3018	Source: WEB	Priority: 2
Name: NOT searches		
Description: Ability to search for records that do not match a search variable (e.g. NOT youth).		
Related Reqs:		Related Process CAT010
Req ID: 1704	Source: CAP	Priority: 3
Name: search results: display		
Description: Ability to customize all search result display screens, including selection of fields to display and sorting/limiting options. Ability to set preferred default displays defined by individual user logons with ability to further customize and change settings as needed.		
Related Reqs: 2271 2272 227		Related Process CAT010

Req ID: 2273	Source: CAP	Priority: 2
Name: display search results		
Description: Ability to customize display of search results in discrete fields (e.g. title, call number, number of entries).		
Related Reqs: 1704 2271 227		Related Process
Req ID: 5501	Source: CAP	Priority: 3
Name: opac displays call numbers in initial search results		
Description: opac displays call numbers in initial search results		
Related Reqs:		Related Process
Req ID: 2205	Source: ACQ	Priority: 2
Name: return to search results		
Description: After searching for a record, ability to return to intermediate results (e.g. 'Back' or 'Return to List').		
Related Reqs:		Related Process CAT010
Req ID: 5538	Source: CAP	Priority: 2
Name: repeat recent searches		
Description: System provides immediate access to recently performed searches.		
Related Reqs:		Related Process CAT010
Req ID: 5506	Source: CAP	Priority: 1
Name: see and see also authority results		
Description: In searches, enable 'see' and 'see also' results and give one-click access to related records, with ability to return to previous record.		
Related Reqs:		Related Process CAT010
Req ID: 5511	Source: CAP	Priority: 3
Name: index browsing		
Description: On indexed fields, provide ability to perform an exact search with truncation, and browse related index alphabetically. Accessible to staff and patrons.		
Related Reqs:		Related Process CAT010

Req ID: 1726	Source: CAP	Priority: 2
Name: indexing		
Description: Provide capability to create unlimited separate indexes for any data field.		
Related Reqs:	Related Process	

Req ID: 2204	Source: ACQ	Priority: 3
Name: unlimited number of temporary record sets		
Description: Unlimited number of temporary record sets (aka buckets, query result sets, selection lists, etc.). Record sets can be the basis for batch field updates or for deleting original records; can be used as a limiting scope for subsequent queries; and can be exported.		
Related Reqs: 1712	Related Process	

Category: Reports

Req ID: 2322 **Source:** ACQ **Priority:** 3

Name: run reports during business hours

Description: Ability to run reports anytime during the day without impacting staff productivity.

Related Reqs:

Related Process

Req ID: 1728

Source: CAP

Priority: 3

Name: report on any field

Description: Ability to report on any variable or fixed-length field in bibliographic, authority, and item records.

Related Reqs:

Related Process

Req ID: 2197

Source: ACQ

Priority: 2

Name: report format and output

Description: Ability to fully customize layout and appearance of reports. Ability to display, print, email, or save report to standard formats including CSV and Excel, as well as to customizable formats.

Related Reqs:

Related Process

Req ID: 1690

Source: CAP

Priority: 3

Name: hold reports

Description: Hold reports should provide sufficient information to uniquely identify materials, including specific magazine issues and volumes in a multi-volume set or series.

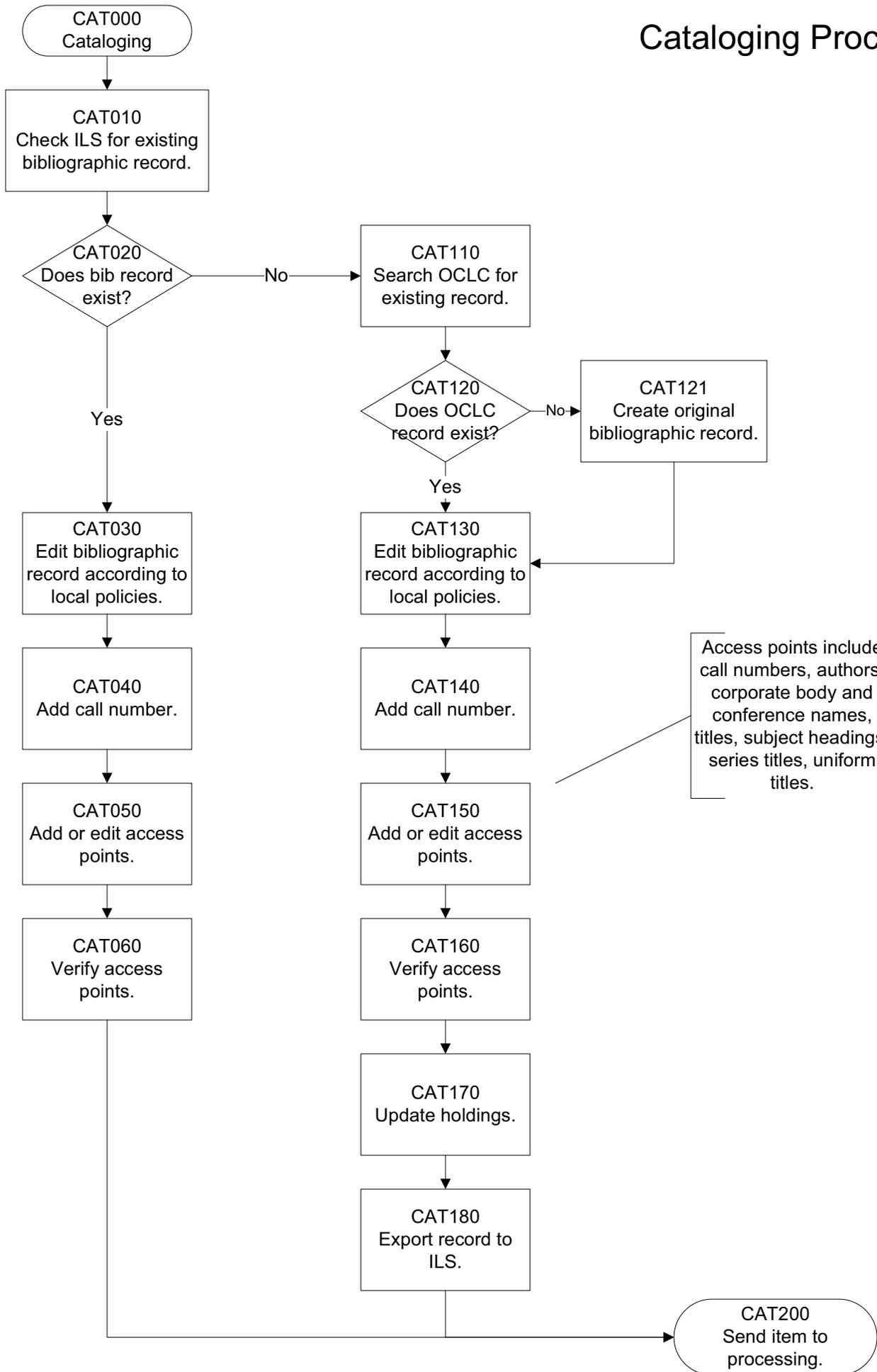
Related Reqs:

Related Process

Req ID: 1723	Source: CAP	Priority: 3
Name: authority reporting		
Description: Provide a reporting tool that includes the ability to identify for a specified time period: new bibliographic headings; updated headings; invalid headings; blind references; duplicate entries; duplicate authority records; near matches; non-unique 4XX entries; and cross-thesaurus matches.		
Related Reqs:	Related Process	

Req ID: 2285	Source: CAP	Priority: 3
Name: monthly statistics		
Description: Generate monthly statistics based on new bibliographic and item records, added copies, and deleted bibliographic records and items.		
Related Reqs:	Related Process	

Cataloging Process



4. Use Cases

4.1 Use Case List

We have written use cases for selected, frequently-performed activities. These are included to supplement the requirements, and to highlight places where good software could bring great improvements in efficiency and ease of use. The steps of the use cases should be considered suggestive rather than prescriptive.

<i>Primary Actor</i>	<i>Use Cases</i>
Cataloging Librarian	Bibliographic Record Creation
Cataloging Technician	Bibliographic Record Verification
Cataloging Librarian	Non-Roman Searching and Editing

4.2 Bibliographic Record Creation

Use Case ID:	USE-001		
Use Case Name:	Bibliographic Record Creation		
Created By:	Lucien Kress	Last Updated By:	Lucien Kress
Date Created:	07/11/08	Date Last Updated:	08/26/08

Actors:	Cataloging Librarian (CL)	
Description:	CL creates a new bibliographic record for an uncataloged title.	
Trigger:	CL must catalog a new title.	
Preconditions:	CL is logged into library system and Connexion with appropriate privileges.	
Postconditions:	Bibliographic record is uploaded to OCLC and system, as appropriate.	
	Stimulus	Response
Normal Flow:	S1: CL must catalog a new title.	R1: CL searches system for existing bibliographic record, using common access points (author name, title, ISBN, UPC, etc.)
	S2: No bibliographic record exists in the system.	R2: CL searches OCLC for existing bibliographic record.
	S3: No bibliographic record exists in OCLC.	R3: CL creates new bibliographic record in Connexion.
		R4: CL creates bibliographic description from item in hand (title page, disc surface, item content, etc.).
		R5: CL adds or confirms bibliographic information using secondary sources of information (allmusic.com, imdb.com, etc.)
		R6: CL adds subject headings.
		R7: CL verifies title, names, subject headings against authority records.
		R8: CL adds call number.
	S9: New record completed.	R9: CL uploads new record to OCLC.
		R10: CL exports new record to system.
Alternative Flows and Exceptions:	<ol style="list-style-type: none"> 1. If a bibliographic record already exists in the system, CL reviews record for accuracy, makes necessary edits, adds call number, and saves record. 2. If a bibliographic record already exists in OCLC, CL reviews record for accuracy, makes necessary edits, adds call number, and exports record to system. 3. If a bibliographic record already exists in the system, but is only partially correct, CL may identify fields to preserve and overlay remaining fields 	

	with OCLC record.
Includes:	
Priority:	3 (High)
Frequency of Use:	Thousands of times per month
Business Rules:	The library has established “chief source of information” for each item format. To the extent possible, bibliographic information is derived from the chief source of information.
Assumptions:	
Notes and Issues:	

4.3 Bibliographic Record Verification

Use Case ID:	USE-002		
Use Case Name:	Bibliographic Record Verification		
Created By:	Lucien Kress	Last Updated By:	Lucien Kress
Date Created:	07/11/08	Date Last Updated:	07/24/08

Actors:	Cataloging Librarian (CL) or Cataloging Technician (CT)	
Description:	CL/CT verifies title, author name, and subject headings against authority records.	
Trigger:	A new bibliographic record has been created or imported.	
Preconditions:	CL/CT is logged into library system with appropriate privileges.	
Postconditions:	Bibliographic record has been verified.	
	Stimulus	Response
Normal Flow:	S1: CL/CT must catalog a new title.	R1: CL/CT searches system for bibliographic record.
	S2: Bibliographic record is displayed.	R2: CL/CT clicks 'Validate' button to highlight fields that don't match authority records.
	S3: Incorrect fields are highlighted.	R3: CL/CT right-clicks highlighted field and selects 'Authority Index'.
	S4: If field is populated, index displays at index value closest to field value. If field is unpopulated, index displays from beginning.	R4: CL/CT types a value to search for specific term; or CT scrolls forward or backward from current position in index.
	S5: Correct term is displayed.	R5: CL/CT clicks to add correct term to bibliographic record field.
	S6: Bibliographic record is updated.	R6: CL/CT repeats until all highlighted fields are correct.
		R7: CL/CT saves record.
Alternative Flows and Exceptions:		
Includes:		
Priority:	3 (High)	
Frequency of Use:	Thousands of times per month	
Business Rules:	The Library uses Library of Congress authority records.	
Assumptions:		
Notes and Issues:	This use case abstracts record verification as a separate function (search for record, verify and save record), when in reality verification occurs as just one of the many actions performed while editing or creating a bibliographic record.	

Non-Roman Searching and Editing

Use Case ID:	USE-003		
Use Case Name:	Non-Roman Searching and Editing		
Created By:	Lucien Kress	Last Updated By:	Lucien Kress
Date Created:	07/11/08	Date Last Updated:	07/24/08

Actors:	Cataloging Librarian (CL)	
Description:	CL searches for a bibliographic record using Romanized characters; CL edits record using non-Roman and Romanized characters, or CL creates an original record in OCLC.	
Trigger:	CL must create or edit bibliographic record for a non-Roman language work.	
Preconditions:	CL is logged into library system with appropriate privileges.	
Postconditions:	Bibliographic record is created or edited and updated.	
	Stimulus	Response
Normal Flow:	S1: CL has a new non-Roman work to catalog.	R1: CL searches ILS for existing record using Romanized characters. If none exists, CL searches OCLC for existing record using Romanized characters. If none exists, CL creates new record in OCLC.
	S2: New input method is selected.	R2: CL inputs Romanized and non-Roman characters by using Microsoft language tool bar.
	S3: New record is completed.	R3: CL updates holdings in OCLC and exports new record to ILS.
Alternative Flows and Exceptions:	If a bibliographic record already exists in the system, CL reviews record for accuracy, makes necessary edits, adds call number, and saves record. If record already exists in OCLC, CL reviews record for accuracy, makes necessary edits, adds call number, and exports record to system.	
Includes:		
Priority:	3 (High)	
Frequency of Use:	Dozens of times per month	
Business Rules:	ALA Romanization Tables, Unimarc	
Assumptions:		
Notes and Issues:		

Software Requirements Specification

for the

Circulation Module

of an

Integrated Library System

Version 2.1 final

Prepared by Lori Ayre and Lucien Kress
Galecia Group
May 15, 2008

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Revision History

Name	Date	Reason For Changes	Version
Lucien Kress	4/23/08	Initial Draft	1.0 draft
Lucien Kress	5/14/08	Revisions, Circulation Supervisors	2.0 draft
Lucien Kress	5/15/08	Final revisions	2.1 final

1. Introduction

1.1 Purpose and Perspective

This Software Requirements Specification (SRS) describes the functional and nonfunctional requirements for the Circulation Module of an Integrated Library System (ILS). The requirements were developed specifically for King County Library System, but are believed to be suitable for many large, urban, multiple-branch, centralized library systems.

The requirements in this SRS presuppose the general data structures and functionality of a full-fledged ILS. The Circulation Module will replace and enhance the current capabilities of commercially available ILSes, as well as add new functionality.

1.2 Product Scope and Features

The Circulation Module facilitates the management of patrons and collection items at the King County Library System. Specifically, the Circulation Module supports the following activities, among others:

- Registering and expiring patron accounts
- Managing patron information, statuses, and privileges
- Generating notifications to patrons via mail, email, phone calls, etc.
- Controlling the inventory of items in the Library's collection
- Moving items to owning locations and pickup locations
- Creating, managing, and filling patron hold requests
- Checking in and checking out items to patrons
- Assessing and collecting late fees, item replacement charges, and other fines
- Supporting patron self-service stations
- Supporting searches, queries, and reports that inform staff and management decisions
- Supporting SIP2 (Standard Interface Protocol, version 2) standards

Self-service circulation functions that occur through the patron web interface (OPAC) are included in a separate specification, currently under development.

The current specification presupposes the general functionality of an ILS and specifies only those requirements that directly or indirectly relate to Circulation activities. Later versions of this SRS will be expanded to include additional modules. Requirements for Cataloging, OPAC and web services, and management reporting are currently under development.

Moreover, the current specification is focused on functional characteristics of a Circulation Module. Data structures and user interfaces will require further specification and development using an iterative, prototype-oriented software development methodology.

1.3 Intended Audience

This SRS is intended both for library managers and staff who may contribute additional requirements or commentary, and for software project managers and developers who will implement the requirements. As such, it aims for a high level of readability for a non-technical audience, while providing enough specificity to be useful to a software developer.

It is assumed that when software development occurs, it will be in a highly collaborative and iterative environment in which end-users have multiple opportunities to review prototypes and refine the user interface and software functionality.

It is also assumed that the reader has a general understanding of Library services and processes and does not require definition of common Library terminology.

1.4 Document Conventions

The SRS includes requirements, process flowcharts, and use cases. Requirements include a reference to a process flowchart where appropriate. Flowcharts generally indicate the current approach to Circulation processes at King County Library System, and should be considered to give contextual information rather than to prescribe or constrain new software development.

Use cases are included for some of the most frequently performed activities. They are intended to supplement the requirements and highlight activities that offer a great potential for increased efficiency and ease of use. Again, they should be considered to be contextual rather than prescriptive.

1.5 User Classes and Characteristics

Patron	A Patron is a customer of King County Library System, either possessing a library card or not, either on site of a community library or not, using either print materials, media materials, or electronic resources.
Circulation Staff	Circulation Staff include managers, librarians, library technicians, library assistants, and library pages who interact with patrons and collection items, manage patron accounts, move items to library buildings and shelf locations as necessary, check items in and out of the system, evaluate damaged and lost items, assess and collect charges, and make decisions about a patron's ability to view, hold, and borrow an item.
Circulation Managers	Circulation Managers include management staff who oversee the Circulation processes.
Library Managers	Library Managers include Cluster and Site Managers who provide input to the Circulation processes and receive patron, hold, and loan information from the Circulation processes.
Library Directors	Library Directors include members of the Library Executive Team who plan and direct Library services and priorities.

1.6 Operating Environment

- OE-1: The Circulation Module supports the needs of a large, multiple-branch library system. Specifically, the system must support a library system with 50 locations, 20 million circulations, purchasing and processing over 500,000 items per year. It is highly desirable that searches and reports can be processed during open hours without disrupting other system functions.

- OE-2: The Circulation Module shall operate on a Linux or Solaris server.
- OE-3: The Circulation Module shall be accessible through a web-browser or a Windows-compatible client.
- OE-4: If web-browser based, the Circulation Module shall be accessible through Microsoft Internet Explorer (v.6.0 and later) and Mozilla Firefox (v.2.0 and later).
- OE-5: The Circulation Module shall be accessible with screen-reading software, screen-magnification software, and other software programs designed to increase accessibility.

1.7 Design and Implementation Constraints

- CO-1: The Circulation Module shall use a fully relational database back-end.
- CO-2: The Circulation Module shall produce standards-compliant HTML.
- CO-3: The Circulation Module shall provide a development and training environment with the ability to migrate configurations to a production environment.
- CO-4: User rights and privileges will be controlled through security groups and/or “roles” that allow access control for individuals, workgroups, and arbitrary staff groups.
- CO-5: These requirements shall not constrain functionality or features of the Online Public Access Catalog (OPAC) module.

1.8 User Documentation

- UD-1: The software developer shall provide complete data specifications for patron records, bibliographic records, order records, invoice records, item records, hold/request records, and other records maintained or accessed by the Circulation Module.
- UD-2: The software developer shall provide a thorough high-level description of major processes, including patron and staff requests, sending and receiving of EDIFACT files, claim cycles, and standard reports.
- UD-3: The system shall provide an online, hierarchical, and cross-linked help system in HTML that describes and illustrates all system functions.

1.9 Assumptions and Dependencies

- AS-1: The Circulation Module is part of an enterprise-level Library Automation System.
- AS-2: Circulation processes are distributed at multiple locations, and accept input and provide services to multiple locations.
- DE-1: The Circulation Module relies on the data structures and functionality of an enterprise-level Library Automation System, including an Acquisitions module.
- DE-2: The Circulation Module interfaces with a variety of vendor websites, via published APIs and/or automated transfer of standard-format data files (e.g. EDIFACT).
- DE-3: The Circulation module interacts with a patron interface, also known as an Online Public Access Catalog (OPAC), accepting input (e.g. patron materials requests) and providing output (e.g. on-order information and status, holds information, patron request status, etc.)

System Requirements

Category: General

Req ID: 5323 **Source:** CIR **Priority:** 3

Name: field and record sharing

Description: Ability for multiple staff members and patrons to simultaneously access and update patron and item records, including on staff check-in and check-out terminals, on self check-out stations, through SIP2/NCIP2 and similar protocols and APIs, and in OPAC. Depending on assigned privileges, staff can view all patron and item fields; patrons can access only selected fields. Record changes are applied in a reasonable way, with prompts to warn when a record has been changed since it was displayed.

Related Reqs:

Related Process

Req ID: 5328 **Source:** CIR **Priority:** 3

Name: data validation

Description: Ability to specify default value, data validation, automatic formatting, and required status for any field.

Related Reqs:

Related Process

Req ID: 2220 **Source:** ACQ **Priority:** 3

Name: keyboard macros and shortcuts

Description: System supports administrator-programmable and user-programmable macros and/or keyboard shortcuts. Shortcut keys may be assigned to macros (e.g. 'Insert Field') or to text strings. Macros are centrally managed on server, can be imported from and exported to individual users, and can be restricted for use and/or editing through centrally-managed permissions.

Related Reqs:

Related Process

Req ID: 5182	Source: CIR	Priority: 3
Name: customizable views		
Description: Ability to create and edit views (i.e. custom layouts) to hide fields, tabs, and command buttons that should not be used. Visible fields can be sized and ordered. Views can be assigned to users individually or via user groups or roles.		
Related Reqs:		Related Process
Req ID: 5394	Source: CIR	Priority: 3
Name: color templates		
Description: Each functional screen can be assigned a unique color palette, to provide a visual clue to which function staff is using. Color palettes are assigned on a systemwide basis. Functions requiring color customization include check-in, capture holds, backdating, fine waiving, check-out, and pull list. Special cases requiring color changes include unpaid fines, fines above block limit, known bad email address, known bad address.		
Related Reqs:		Related Process
Req ID: 5389	Source: CIR	Priority: 3
Name: audio signals during check-in		
Description: System provides audio signals during check-in process when a barcode is successfully scanned, when a local hold is triggered, when a transit hold is triggered, and when check-in is complete. Audio signals can be customized for each trigger, on a systemwide basis. Audio signals can be disabled for the current session or the current user.		
Related Reqs: 5183		Related Process
Req ID: 5399	Source: CIR	Priority: 3
Name: date format		
Description: Date format is set in system parameters, and used consistently throughout system.		
Related Reqs:		Related Process

Req ID: 5411	Source: CIR	Priority: 2
Name: barcodes must be unique		
Description: Item record barcodes and patron record barcodes must be unique. Alert staff when duplicate barcodes are entered, and prevent assignment of duplicate barcodes. (However, see REQ-5536 for the case of item records without barcodes.)		
Related Reqs: 5536		Related Process
Req ID: 5382	Source: CIR	Priority: 3
Name: search results: sorting		
Description: Ability to sort by any column in any list (search results, etc.).		
Related Reqs: 1704		Related Process
Req ID: 5183	Source: CIR	Priority: 3
Name: eliminate popups during check-in		
Description: Check-in process does not display popup screens. Alerts are communicated visually (e.g. change of screen color) or audibly.		
Related Reqs: 5389		Related Process
Req ID: 2077	Source: CIR	Priority: 3
Name: circulation activity history		
Description: Ability for staff to view circulation transactions log. Patrons' personal identifying information is stripped out. Depending on assigned privileges, staff can view all data, or aggregate data.		
Related Reqs:		Related Process
Req ID: 2091	Source: CIR	Priority: 3
Name: login information display		
Description: Show login identification at top of screen.		
Related Reqs:		Related Process
Req ID: 5313	Source: CIR	Priority: 3
Name: copy and paste		
Description: All screens support copy and paste.		
Related Reqs:		Related Process

Req ID: 5307	Source: CIR	Priority: 3
Name: record printing		
Description: Patron and item record screens provide 'print record', 'print screen', and 'print selected items' options.		
Related Reqs:	Related Process	

Req ID: 2202	Source: ACQ	Priority: 3
Name: flexible queries and reports		
Description: All queries and reports include the ability to sort, filter, and limit on any variable or fixed field or subfield in any record type (bibliographic, item, order, authority). Ability to search for records that fall within a range of values. Ability to save customized queries and output criteria for future use. Ability to retrieve last X queries to repeat search and/or save query permanently.		
Related Reqs:	Related Process	

Req ID: 2197	Source: ACQ	Priority: 2
Name: report format and output		
Description: Ability to fully customize layout and appearance of reports. Ability to display, print, email, or save report to standard formats including CSV and Excel, as well as to customizable formats.		
Related Reqs:	Related Process	

Category: Notices

Req ID: 5384	Source: CIR	Priority: 3
Name: customizable notice content		
Description: Notice contents are fully configurable and can differ between email, SMS, RSS, telephoned, and mailed notices. Content may included calculated fields, e.g. a link to the patron's home library location, or differing information based on patron type.		
Related Reqs: 1938 5111 521		Related Process
Req ID: 5212	Source: CIR	Priority: 3
Name: notification options		
Description: Ability for patron to waive specific types of notices (e.g. courtesy notices or first overdue notices). Ability to make some types of notices mandatory (e.g. final overdue notice).		
Related Reqs:		Related Process
Req ID: 5203	Source: CIR	Priority: 3
Name: notification schedules		
Description: Ability to schedule different types of notices on a daily basis or several times a day.		
Related Reqs:		Related Process
Req ID: 5202	Source: CIR	Priority: 3
Name: consolidate multiple notices		
Description: Ability to consolidate multiple notices within a single email, phone call, or mailing per patron per day.		
Related Reqs:		Related Process

Req ID: 5379	Source: CIR	Priority: 3
Name: manage bounced emails		
Description: System provides a facility for managing bounced email messages. Bounced email notices prevent further emails to the patron; notices are sent by mail; patron record receives a message for staff to request a new email address; OPAC displays message to patron to update email address; messages are removed and delivery resumed when a new email address is entered.		
Related Reqs: 5109		Related Process

Req ID: 5196	Source: CIR	Priority: 3
Name: long wait notices		
Description: Ability to send emails to patrons who are 1) near the top of the holds queue and 2) have been waiting a long time, to see if they still want the item.		
Related Reqs:		Related Process HOL-057

Req ID: 5210	Source: CIR	Priority: 3
Name: pickup notice cancellation		
Description: Ability to cancel unsend notices before they are sent. Ability to search pending notices by item barcode.		
Related Reqs:		Related Process HOL-111

Req ID: 5213	Source: CIR	Priority: 3
Name: hold cancellation notices		
Description: Patrons receive hold cancellation notices but do not receive notices when holds expire on the hold shelf.		
Related Reqs:		Related Process HOL-032

Req ID: 5109	Source: CIR	Priority: 3
Name: overdue notices		
Description: System provides a configurable schedule of overdue notifications, including the number of notifications and the number of days delay before and between notices. Notices are sent by email (if patron email address is available). If patron email address is unavailable, or if email notice bounces, the current notice and any subsequent notices are sent by telephone notification system. If telephone call fails, the current notice is printed and sent by mail.		
Related Reqs: 5379		Related Process

Req ID: 5211	Source: CIR	Priority: 3
Name: mobile text notices		
Description: System provides support for SMS notices.		
Related Reqs: 1938 5111 521		Related Process

Req ID: 5207	Source: CIR	Priority: 3
Name: telephone notices schedules		
Description: Ability to maintain separate telephone notice calling schedules for weekdays and weekends.		
Related Reqs: 6071		Related Process

Req ID: 5111	Source: CIR	Priority: 3
Name: courtesy notices		
Description: Send courtesy notices via email a configurable number of days before due date, depending on loan period of item. (Patrons can opt out of courtesy notices if desired; see REQ-5212.)		
Related Reqs: 5212		Related Process

Req ID: 5101	Source: CIR	Priority: 3
Name: billing notices		
Description: Send billing notice to patron when account balance reaches a configurable threshold. An item is billed to the patron account when it is overdue by a configurable number of days. (System calculates and assesses the correct charge to the patron's account.)		
Related Reqs: 7121		Related Process

Req ID: 5224	Source: CIR	Priority: 3
Name: patron notification log		
Description: Log all notices sent to patron, including patron barcode, date/time, notice type, delivery method (email, telephone, text, mail, direct communication), item record number, and success/error status. Provide a link from patron record to the log. Log can be printed from patron record.		
Related Reqs: 5206		Related Process

Req ID: 5206	Source: CIR	Priority: 3
Name: notices log, system		
Description: Log all notices and allow queries for daily count, systemwide, by notice type, and by notice format.		
Related Reqs: 5224		Related Process

Category: Rules

Req ID: 5278 **Source:** CIR **Priority:** 3

Name: suppression rules

Description: System provides customizable 'Rules of Suppression' that specify whether patrons and staff can view authority, bibliographic, order, and item records in staff and public (OPAC) interfaces. Records may be visible to specific workgroups only; to all staff and patrons at specific locations; or to all staff and all patrons. (See REQ-5057 for related requirements on loan rules, and REQ-5190 for related requirements on holdability.)

Related Reqs: 5057 5190 580 **Related Process** CAT180

Req ID: 5057 **Source:** CIR **Priority:** 3

Name: loan rules

Description: System allows creation and modification of loan rules that allow or disallow check-out of items, calculate loan periods, and determine renewal limits. Loan rules may evaluate patron type, current number of items checked out, current patron account balance, item type, item status, owning location code, check-out location code, and other criteria. For example, loan rules may prohibit patrons from checking out items with an unavailable status, e.g. an item with a triggered hold for another patron or an item that is already checked out to another patron. Loan rules can access check-out location open/closed schedule in calculating due date. Loan rules also specify whether a specific criteria may be overridden by staff with specific privileges or roles. (Also see REQ-5190 re requesting rules.)

Related Reqs: 5190 **Related Process** HOL-131

Req ID: 5192 **Source:** CIR **Priority:** 3

Name: renewal of items with outstanding holds

Description: Patrons can renew a title as long as they have not exceeded the allowed number of renewals, and there are more available items than there are unfrozen holds.

Related Reqs: **Related Process**

Req ID: 5190	Source: CIR	Priority: 3
Name: requesting rules		
Description: System allows creation and modification of requesting rules that determine whether a patron can place a hold on an item. Requesting rules may evaluate patron type, current number of holds, current patron account balance, item type, item status, owning location code, and other criteria. For example, requesting rules may prohibit patrons from placing holds on on-order CD titles, but allow patrons to place holds on other on-order titles. Requesting rules also specify whether staff with specific privileges or roles can override specific criteria. (See REQ-5057 re loan rules, REQ-5278 re visibility.)		
Related Reqs: 5057 5278		Related Process HOL-011

Req ID: 5194	Source: CIR	Priority: 3
Name: holds, additional on checked-out items		
Description: Patrons of specified patron types can place holds on items they already have checked out. All other patrons cannot. (See REQ-5190, rules of requesting.)		
Related Reqs: 5190		Related Process

Req ID: 5189	Source: CIR	Priority: 3
Name: holds, multiple per item		
Description: Allow specified patron types to place multiple holds on a single title. (At a minimum, these types will include branch cards.) Also see REQ-5190, rules of requesting.		
Related Reqs: 5190 5386 730		Related Process

Req ID: 2160	Source: ACQ	Priority: 3
Name: holds on on-order titles		
Description: Ability to place holds on titles with status on-order. (Note REQ-5190 re rules of requesting, REQ-5278 re visibility of title records.)		
Related Reqs: 5190 5278		Related Process

Req ID: 5175	Source: CIR	Priority: 3
Name: held items do not count against hold limit		
Description: When hold is ready for pick up, item should no longer count as one of patron's maximum number of holds. (This rule should be configurable at a system level.)		
Related Reqs:		Related Process

Req ID: 5290	Source: CIR	Priority: 3
Name: locations that do not fill holds		
Description: Ability to designate specific branches or branch shelving locations that will not trigger a hold upon check-in. (For use in recalling an item to the backroom for work/evaluating.)		
Related Reqs:		Related Process

Req ID: 5056	Source: CIR	Priority: 3
Name: special holds and check-out limits		
Description: Ability to limit number of items held by or checked out to one patron within a selected item type and/or location. For example, holiday books; DVDs at LCSC; puppets at Kent.		
Related Reqs: 5057 5190		Related Process

Req ID: 5191	Source: CIR	Priority: 3
Name: due date extension		
Description: Allow staff to renew or extend due date on selected items. If this is prohibited by loan/renewal rules (e.g., there are holds on the item, or patron has reached renewal limits, or the patron record has a block), require approval at specified permissions level. Renewal or due date extension is tallied as a renewal.		
Related Reqs: 5808 5815		Related Process

Category: Patron Records, General

Req ID: 5370 **Source:** CIR **Priority:** 3
Name: patron lookup by record number
Description: Ability to access patron record by record number; necessary for some ancilliary services including Telus and Collections.

Related Reqs: **Related Process**

Req ID: 1959 **Source:** CIR **Priority:** 2
Name: patron password (PIN)
Description: Patron passwords are alphanumeric; numeric-only passwords are allowed. Library may set minimum and maximum limits on password length.

Related Reqs: **Related Process**

Req ID: 2039 **Source:** CIR **Priority:** 3
Name: patron pin override
Description: Staff are able to assist patrons with functions that require a PIN. System provides a way to authenticate a patron PIN from the staff interface. System provides the possibility for patrons of specified patron type (e.g. Outreach patrons) to have a second PIN, visible to staff. Staff can reset PINs.

Related Reqs: **Related Process**

Req ID: 5408 **Source:** CIR **Priority:** 3
Name: patron-selected username
Description: System provides option for patron to select a username and password, which can then be used to access OPAC, self check-out station, online databases, public PC booking system, and other electronic resources. In every case where patron authentication occurs, patrons can enter either a patron barcode or a username, and a password, and the system will handle authentication transparently.

Related Reqs: **Related Process**

Req ID: 5381	Source: CIR	Priority: 3
Name: parcel viewer interface		
Description: Access to King County Parcel Viewer for checking card eligibility.		
Related Reqs: 5371		Related Process
Req ID: 5310	Source: CIR	Priority: 3
Name: address verification		
Description: Interface with address verification vendor to verify patron addresses at time of entry, and/or in a batch process.		
Related Reqs: 5371		Related Process
Req ID: 5344	Source: CIR	Priority: 3
Name: message picklist		
Description: Ability to select one or more messages and blocks from a picklist. Clearing one message or block from the patron record does not affect other messages and blocks.		
Related Reqs:		Related Process
Req ID: 5348	Source: CIR	Priority: 3
Name: street name abbreviation picklist		
Description: Provide picklist of allowable street name abbreviations.		
Related Reqs:		Related Process
Req ID: 5337	Source: CIR	Priority: 3
Name: charges picklist		
Description: System provides a picklist of typical fine descriptions. Picklist can be edited as desired by staff with administrative privileges.		
Related Reqs:		Related Process
Req ID: 2015	Source: CIR	Priority: 3
Name: patron record, lookup tables		
Description: Ability to create lookup tables that populate patron record fields based on value entered into a key patron record field. (For example, entering a zipcode populates patron type field.)		
Related Reqs:		Related Process

Req ID: 1979	Source: CIR	Priority: 3
Name: patron address changes		
Description: Patrons can update their addresses, phone numbers, email addresses, and pickup location through the public web interface. Address changes are put in a review list for confirmation by library staff.		
Related Reqs:		Related Process
Req ID: 5226	Source: CIR	Priority: 3
Name: patron hold position		
Description: Current hold position is shown as 'nth hold on x circulating copies' or 'Ready for Pickup'. Additional statuses like 'In Transit' are hidden from patron but visible in staff interfaces.		
Related Reqs:		Related Process
Req ID: 5214	Source: CIR	Priority: 3
Name: hold wait estimate		
Description: Ability for patron hold list to include an estimate of how long patron will wait for a hold, based on position in queue, number of circulating copies, average length of time kept by patrons, and other criteria specified by Library. When held item is in transit, display a system-defined value (e.g. "1-2 days"). This feature can be enabled or disabled by a system parameter.		
Related Reqs:		Related Process
Req ID: 5216	Source: CIR	Priority: 3
Name: patron error messages		
Description: Patron error messages are specific and unambiguous. For example, if a hold request is unsuccessful, the error message should say why (hold limit reached, no available copies, etc.).		
Related Reqs: 1652 7220		Related Process
Req ID: 5326	Source: CIR	Priority: 3
Name: patron records, copying		
Description: Ability to copy a patron record to generate a new, similar record (e.g. sibling or spouse cards).		
Related Reqs:		Related Process

Req ID: 5367	Source: CIR	Priority: 3
Name: patron records, searching		
Description: Ability to search patron records using any field, multiple fields (AND/OR), whole or partial fields.		
Related Reqs:		Related Process
Req ID: 2085	Source: CIR	Priority: 3
Name: patron records, editing		
Description: Allow all actions from all modes and modules for editing and modifying patron records, including holds.		
Related Reqs:		Related Process
Req ID: 5346	Source: CIR	Priority: 3
Name: patron record, batch edit		
Description: Ability to edit multiple patron records in batch, including changing or appending to specific fields, and cancelling groups of patron records.		
Related Reqs:		Related Process
Req ID: 5314	Source: CIR	Priority: 3
Name: patron records, deleting		
Description: Ability to delete patron record, with sufficient privileges. Patron reading lists, hold queues, etc. are deleted as well.		
Related Reqs:		Related Process
Req ID: 5315	Source: CIR	Priority: 3
Name: patron records, merging		
Description: Ability to merge patron records.		
Related Reqs:		Related Process
Req ID: 5322	Source: CIR	Priority: 3
Name: mail merge		
Description: Ability to generate an envelope, letter, or label from a patron record.		
Related Reqs:		Related Process

Req ID: 5318	Source: CIR	Priority: 3
Name: minors and adults		
Description: Minor cards are automatically updated to Adult cards, based on birthdate.		
Related Reqs:	Related Process	

Req ID: 5409	Source: CIR	Priority: 3
Name: linked patrons (patron version)		
Description: System provides ability for patrons to link their records in a way that grants privileges. A patron can request a link to another patron's record. The target patron must accept the link. A patron may select an option to refuse all links. Once a link is accepted, a patron can review a linked patron's hold list and checked-out item list at a self check-out station or through the OPAC. A patron can pay fines belonging to a linked patron.		
Related Reqs:	Related Process	

Req ID: 5343	Source: CIR	Priority: 3
Name: linked patrons (staff version)		
Description: Staff members can link patron records of family members. No privileges are granted to linked patrons. Staff can see linked patron's summary (fines, number of check-outs, etc.), or click link to go to linked patron record.		
Related Reqs:	Related Process	

Category: Patron Records, Display

Req ID: 5372	Source: CIR	Priority: 3
Name: patron record display: views		
Description: Patron record display includes the following views: summary with fines, messages and blocks; check-out; checked out items; holds; check-in; linked patrons; custom. Administrators can customize layout and determine whether active fines, messages, and blocks display in any particular view. (Note: screen layouts will be further refined during an iterative development process.)		
Related Reqs: 2103	Related Process	

Req ID: 5354	Source: CIR	Priority: 3
Name: patron record display: confidential information		
Description: Patron record screen displays sensitive information (e.g. birthdate, phone number); information is obscured but can be made viewable (e.g. by selecting or hovering over a field).		
Related Reqs:	Related Process	

Req ID: 5222	Source: CIR	Priority: 3
Name: patron holds list		
Description: Patron record screen provides a tab showing patron's holds list, including active and recently cancelled holds. Each active hold includes current queue position (i.e. 'nth hold on X copies'). Each cancelled hold includes cancellation date and reason. Ability to limit list to holds ready for pickup. Ability to replace a cancelled hold with one click.		
Related Reqs: 5225	Related Process	

Req ID: 5347	Source: CIR	Priority: 3
Name: patron record display timeout		
Description: Patron records display times out and closes automatically after a specified idle period.		
Related Reqs:	Related Process	

Req ID: 5356

Source: CIR

Priority: 3

Name: patron password (PIN) masked

Description: Patron personal identification number (PIN) and password are masked in all displays.

Related Reqs:

Related Process

Category: Patron Records, Fields

Req ID: 5410 **Source:** CIR **Priority:** 3

Name: patron record fields

Description: Name fields (last, first, middle)
Patron Type
Username (patron-selected username for logging into protected services)
Password (patron-selected password for logging into protected services)
Barcode (indexed, must be unique), PIN
Home Library
Expiration Date
Gender
Birthdate
Parent/Guardian (if under 18)
Address fields (mailing, residential) and Bad Address marker field (for bouncing addresses)
Telephone Number fields (primary and secondary) and Bad Phone Number marker field (for disconnected phone numbers)
Email Addresses (multiple addresses; all addresses receive notices) and Bad Email Address field (for bouncing email addresses)
Text Messaging Address
Messages (alerts that require action; once resolved, move to Notes field)
Notes (informational and resolved messages and blocks)
Block fields (System, Manual, Collections)

Related Reqs: 5412

Related Process

Req ID:	5412	Source:	CIR	Priority:	3
Name:	patron record fields (continued)				
Description:	<p>Claims Counter fields (Claims Return, Claims Never Checked Out; used to count number of claims)</p> <p>No Collections (used to prevent patron from going to collections; requires supervisor privileges to enable)</p> <p>Check-out History (enabled or disabled)</p> <p>Mailing Authorization (used to specify that patron agrees to shipping charges for mailed holds)</p> <p>Filtering Choice (e.g. Some, Most, None)</p> <p>Pickup Authorization (names of people who can pickup holds on behalf of patron)</p> <p>Holds Preference fields: Alias (alias used on hold slips and clear hold shelf slips) and Hold Behind Desk</p> <p>Mailing Preference fields (Events Mailing List, Foundation Mailing List)</p> <p>Telephone Preference fields (preferred time of day, no calls)</p> <p>Last Update fields (date and user of last change to patron record)</p> <p>Barcode Last Changed Date</p> <p>Last Circulation Activity (date, time, and location of last check-out, renewal, or check-in)</p> <p>Last Electronic Activity (date and type of last electronic access, e.g. SIP, NCIP, API, etc.)</p> <p>Check-out Counter fields (current, YTD, last year, lifetime)</p> <p>Renewals Counter (current, YTD, last year, lifetime)</p> <p>Current Charges fields: Shipping Charges, Total Charges</p> <p>Fresh Start (date of last fine forgiveness)</p> <p>Library Outreach Route and Stop (route and stop code for Travelling Library Center)</p> <p>Address Alert (used to identify dummy patron records that include 'illegal' addresses like commercial mailing centers, etc.)</p>				
	Related Reqs:	5410 5806	Related Process		

Req ID:	5338	Source:	CIR	Priority:	3
Name:	patron record, bad address flag				
Description:	<p>When the 'Bad Address' flag is enabled in a patron record, notices are no longer mailed to the patron; a block is created and the zipcode field is set to '00000'; system provides a visual cue (see REQ-5394) when displaying a patron record with bad address; OPAC displays a message to patron asking for address update. Entering a new address clears the bad address flag and removes the block.</p>				
	Related Reqs:	5394	Related Process		

Req ID: 5362	Source: CIR	Priority: 3
Name: patron record, pickup authorization field		
Description: Patron can review list of those authorized to pick up holds in the patron record. Hold is checked out to the patron who placed the hold, regardless of who picks it up.		
Related Reqs: 5410	Related Process	

Category: Patron Records, Messages and Blocks

Req ID: 5366	Source: CIR	Priority: 3
Name: blocks		
Description: System provides three types of blocks: system, manual, and collections. These blocks are maintained in different fields and are independent of each other. System blocks are defined by triggers (e.g. fines greater than a specific amount), actions (e.g. disable email notices), restrictions (e.g. ability to check items out), remedy (e.g. pay a certain amount or percentage of a fine), and remedy actions (e.g. enable email notices). Manual and collections blocks are set manually in the patron record.		
Related Reqs: 5332	Related Process	

Req ID: 5365	Source: CIR	Priority: 3
Name: notes and messages history field		
Description: Notes and messages are retained indefinitely in the patron record, until manually deleted.		
Related Reqs: 5410	Related Process	

Req ID: 5321	Source: CIR	Priority: 3
Name: autofill notes and messages fields		
Description: Automatically enter date, user, and location in messages and notes.		
Related Reqs:	Related Process	

Category: Patron Records, Fines

Req ID: 5108 **Source:** CIR **Priority:** 3
Name: patron fines display
Description: Patron record screen displays fines on initial screen.

Related Reqs: **Related Process**

Req ID: 5134 **Source:** CIR **Priority:** 3
Name: paid fines history, summary view
Description: Paid Fines History summary view displays a list of paid fines, including charge type, barcode, title, amount due, amount paid, date paid. Sort by 'date paid' (reverse chronological order) by default, but allow ascending or descending sort by any column. When specific fines are selected, system displays subtotal of selected fines, in addition to the total of all fines. Ability to limit list to waived fines. Fine history is maintained for twelve months.

Related Reqs: **Related Process**

Req ID: 5133 **Source:** CIR **Priority:** 3
Name: paid fines history, detail view
Description: Paid Fines History detail view includes: Name, patron number, check-out date, due date, check-in date (could be back-dated), actual date returned, actual time returned, location where item was returned, terminal where item was returned, as well as item barcode, charge type (overdue or billed), call number, author, title, item charge, amount previously paid, amount paid, amount due, payment status (partial or in full), date paid, invoice number, applicable loan rule.

Related Reqs: **Related Process**

Req ID: 5114 **Source:** CIR **Priority:** 3
Name: unpaid fines, summary view
Description: Unpaid Fines summary view displays a list of unpaid fines, including charge type, title, location code, amount, item barcode, check-in date. Sort by check-in date (reverse chronological order) by default, and allow ascending or descending sort by any column. When specific fines are selected, system displays subtotal of selected fines, in addition to the total of all fines.

Related Reqs: **Related Process**

Req ID: 5113	Source: CIR	Priority: 3
Name: unpaid fines, detail view		
Description: Unpaid Fines detail view includes: Name, patron number, check-out date, due date, last renewal date, check-in date (could be back-dated), actual date item was returned, actual time item was returned, location where item was returned, station where item was returned, as well as item barcode, charge type (overdue, billed, etc.), call number, author, title, item charge, invoice number (put dates in logical date order).		
Related Reqs:		Related Process

Req ID: 5126	Source: CIR	Priority: 3
Name: fine history detail		
Description: Hovering cursor over a line in fine history summary screen shows fine details.		
Related Reqs:		Related Process

Req ID: 5116	Source: CIR	Priority: 3
Name: item record details		
Description: Fines in all views (paid and unpaid; summary and detail) link to item record details.		
Related Reqs:		Related Process

Category: Patron Records, Reading Lists

Req ID: 5046 **Source:** CIR **Priority:** 3

Name: patron holds and check-out history

Description: Patrons can choose to keep history of items held and/or checked out. By default, no check-out history is maintained. If enabled, history is visible through the patron account and can be searched. Patron can export history to file, printer, or email, in any of several formats defined by the Library. Patron can clear history and can set a parameter to retain items for X months. Opting out deletes existing history, with appropriate warnings to patron. Staff can not view patron history. When patron is deleted, patron holds and check-out history is cleared (along with all other patron lists). Patron record has a field showing whether history is enabled.

Related Reqs: 5410

Related Process

Req ID: 5259 **Source:** CIR **Priority:** 3

Name: patron reading lists

Description: Patrons can save items into reading lists; add item notes; change order of items; and place and manage holds from the reading list screen.

Related Reqs:

Related Process

Req ID: 5327 **Source:** CIR **Priority:** 3

Name: delete patron lists

Description: System automatically deletes patron lists (such as saved lists) when the patron record is deleted.

Related Reqs:

Related Process

Category: Patron Records, Registration

Req ID: 5371 **Source:** CIR **Priority:** 3

Name: registration wizard

Description: Provide a library card registration wizard. Wizard accepts patron name, birthdate, address, phone number, and/or email address, and does a search for matching or similar patrons. Search results display patron name, address, birthdate and current status, with 'address alert' records first (see REQ-5317). Option to select an existing record to edit, or continue with new record. System provides additional default values, both fixed (e.g. State = WA, Filtering = Some) and calculated (e.g. Home Library = current location). Wizard screens can show customizable help text and/or "hover tips" to assist staff in entering information. System checks address against USPS (or other address verification vendor) and provides legal address.

Related Reqs: 5317 5328

Related Process

Req ID: 5317 **Source:** CIR **Priority:** 3

Name: duplicate patron records search

Description: Patron records with 'address alert' field checked appear at top of duplicates list. (See REQ-5329 for definition of 'address alert' field.)

Related Reqs: 5329

Related Process

Req ID: 5319 **Source:** CIR **Priority:** 3

Name: default personal identification number

Description: Autofill PIN in new patron records with last 4 digits of phone number.

Related Reqs:

Related Process

Req ID: 5320 **Source:** CIR **Priority:** 3

Name: patron record expiration

Description: Automatically fill in an expiration date when specified patron types are entered.

Related Reqs:

Related Process

Req ID: 2033

Source: CIR

Priority: 3

Name: online card applications

Description: Ability to have online card applications entered directly into system, with approval and checking done by staff before account is activated.

Related Reqs:

Related Process

Category: Item Records

Req ID: 5297 **Source:** CIR **Priority:** 3

Name: item record access points

Description: Ability to edit item records from any item record access point.

Related Reqs:

Related Process

Req ID: 5292 **Source:** CIR **Priority:** 3

Name: item records, batch edit

Description: Item records can be edited in batch.

Related Reqs:

Related Process

Req ID: 5280 **Source:** CIR **Priority:** 3

Name: item records, deleting

Description: Ability to delete individual or batch of records, with sufficient privileges. Deleted item records remain accessible for reporting and research purposes.

Related Reqs:

Related Process

Req ID: 5392 **Source:** CIR **Priority:** 3

Name: support floating collections

Description: System supports floating collections (such as Choice Reads paperbacks and boardbooks).

Related Reqs:

Related Process

Req ID: 5393 **Source:** CIR **Priority:** 3

Name: rotating collections

Description: System supports rotating collections (such as large print and audiobook collections). Bibliographic records can be added or removed from the collection and can be updated in batch.

Related Reqs:

Related Process

Req ID: 5286	Source: CIR	Priority: 3
Name: sets and kits		
Description: Support sets (large number of items sharing one barcode) and kits (small number of items sharing one barcode). Ability to display the number of items and a list of descriptions.		
Related Reqs:		Related Process
Req ID: 5303	Source: CIR	Priority: 3
Name: item records, temporary transfer		
Description: Ability to temporarily set item to a new location, and later revert to original location.		
Related Reqs:		Related Process
Req ID: 5293	Source: CIR	Priority: 3
Name: display items		
Description: Item status field is set to 'Display' for items that are on display at a branch. Item record provides a field for the display location. Both status and location field are reset at the next check-in or check-out.		
Related Reqs:		Related Process
Req ID: 5187	Source: CIR	Priority: 3
Name: browse only		
Description: Ability to set an item to 'browse only' and set a date for item to automatically begin accepting holds.		
Related Reqs:		Related Process
Req ID: 2141	Source: CIR	Priority: 1
Name: move magazines from shelf to circulate		
Description: Receiving new issue causes previous issue to go automatically into holdable status. (May be handled through a macro, see REQ-2220.)		
Related Reqs: 2220		Related Process SER280

Req ID: 5048	Source: CIR	Priority: 3
Name: item records, check-out history		
Description: For the current and previous check-out, item record records the patron, original check-out date, original check-out location, last renewal date, last renewal location, and number of renewals. Check-out patron field links to patron record.		
Related Reqs:		Related Process
Req ID: 1922	Source: CIR	Priority: 3
Name: item records, check-in history		
Description: Display last check-in date, time, location code, location abbreviation, and check-in terminal number in item record.		
Related Reqs: 5013		Related Process
Req ID: 2522	Source: ACQ	Priority: 2
Name: item records, location history		
Description: Track location history for items; at a minimum, show last and current location.		
Related Reqs:		Related Process
Req ID: 5188	Source: CIR	Priority: 3
Name: item records, hold shelf location		
Description: Item record includes a field for 'hold shelf location'. When item status is 'On Hold Shelf,' record location. Retain hold shelf location until item is checked out or goes to another hold shelf.		
Related Reqs:		Related Process HOL-110
Req ID: 5369	Source: CIR	Priority: 3
Name: item records, status changed date field		
Description: Item record includes a separate date field for last change to item status.		
Related Reqs:		Related Process

Req ID: 5390	Source: CIR	Priority: 3
Name: item records, refund eligibility		
Description: Item record includes a field for refund eligibility. Default value can be defined based on system parameters and item record fields such as format and price.		
Related Reqs:		Related Process
Req ID: 5035	Source: CIR	Priority: 3
Name: in transit message		
Description: In transit message includes date, check-in location, and destination.		
Related Reqs:		Related Process
Req ID: 2184	Source: ACQ	Priority: 3
Name: view copies, holds, and check-out status		
Description: Ability to see number of copies, check-out status, and number of holds all on one screen. (Staff interface and patron interface.)		
Related Reqs:		Related Process SEL005
Req ID: 5308	Source: CIR	Priority: 3
Name: bibliographic record copies display		
Description: Bibliographic record displays all copies, including: record ID, call number, item barcode, item status, last update to status, owning location, shelving location, volume number, price, creation date, last update date, due date, loan rule used, item message, and number of holds.		
Related Reqs:		Related Process
Req ID: 5246	Source: CIR	Priority: 3
Name: item record links to hold list		
Description: Item record screen includes link to hold list.		
Related Reqs:		Related Process

Req ID: 5306	Source: CIR	Priority: 3
Name: item check-out statistics		
Description: Item record displays total check-outs and renewals for year-to-date, previous year, and lifetime.		
Related Reqs:		Related Process

Req ID: 5302	Source: CIR	Priority: 3
Name: bibliographic record modification		
Description: Bibliographic records can only be modified by users with sufficient privileges (e.g. cataloging staff).		
Related Reqs:		Related Process

Req ID: 2143	Source: SER	Priority: 2
Name: unlimited items per bibliographic record		
Description: Ability to add unlimited items to a single bibliographic record. For example, this is important for magazine titles that may comprise thousands of items per year.		
Related Reqs: 2279, 2280, 55		Related Process

Req ID: 5288	Source: CIR	Priority: 3
Name: non-cataloged items		
Description: Branch staff can quickly add barcode numbers for non-cataloged items to existing bibliographic records (e.g. a generic bibliographic record for paperbacks).		
Related Reqs:		Related Process

Req ID: 5281	Source: CIR	Priority: 3
Name: bibliographic record: catalog add date		
Description: Bibliographic record includes a field for the date the title was added to the catalog.		
Related Reqs:		Related Process CAT030

Req ID: 5283

Source: CIR

Priority: 3

Name: mobile inventory

Description: Support inventory processes on mobile devices.

Related Reqs:

Related Process

Category: Holds, General

Req ID: 5251	Source: CIR	Priority: 3
Name: hold record fields		
Description: Hold records include the following fields: queue position, date placed, patron name, patron type, pickup location, freeze indicator, thaw date, not wanted before date, not wanted after date, number of days active (i.e. not frozen), and staff hold note. (Note: hold record data structure will be better defined during an iterative development process.)		
Related Reqs:		Related Process
Req ID: 5155	Source: CIR	Priority: 3
Name: hold record access		
Description: Ability to view, export, sort, limit, format, search, and update all fields in hold records.		
Related Reqs:		Related Process
Req ID: 5181	Source: CIR	Priority: 3
Name: hold functions		
Description: All hold functions are available in all modules and modes, including placing holds, freezing holds, and changing position in queue.		
Related Reqs:		Related Process
Req ID: 5272	Source: CIR	Priority: 3
Name: hold note field (staff)		
Description: Have separate hold note field for staff use that does print on hold slip.		
Related Reqs: 5271		Related Process
Req ID: 5271	Source: CIR	Priority: 3
Name: hold note field (patron)		
Description: Have a hold note field for patrons that would print within the (email or mail) pickup notice but not on the holds slip and would display in My Account.		
Related Reqs: 5272		Related Process

Req ID: 1843	Source: CIR	Priority: 3
Name: sequenced holds		
Description: Ability to place hold on a several items, and have them arrive in order. (I.e., hold B is not triggered until hold A is filled, checked out, and returned.)		
Related Reqs:		Related Process

Req ID: 5001	Source: CIR	Priority: 3
Name: disable hold triggering per patron type		
Description: Holds should not trigger for patron records with specified patron types, like Card Canceled, Deceased, etc.		
Related Reqs:		Related Process

Req ID: 5402	Source: CIR	Priority: 3
Name: holdability of specific items		
Description: System allows staff to make a specific item holdable or unholdable, overriding requesting rules. (See REQ-5190 re requesting rules.)		
Related Reqs: 5190		Related Process

Req ID: 5276	Source: CIR	Priority: 3
Name: 'deny if locally available' setting		
Description: By default, items can be held regardless of whether they are available on the shelf. If the 'deny' flag is on, that condition is evaluated after the loan and holdability rules are evaluated. The existence of non-circulating copies should never prevent a hold on a title. Requesting rules may prevent placing holds on locally available items, if desired. In that case, staff may override for specific holds. (See REQ-5190 for details on holdability.)		
Related Reqs: 5190		Related Process

Req ID: 5150	Source: CIR	Priority: 3
Name: holds statistics		
Description: Ability to report on number of holds placed, triggered, filled by pickup location, filled by another location, expired on hold shelf, and cancelled; time to fill; time to pick up. Systemwide and per location.		
Related Reqs:		Related Process

Req ID: 5234	Source: CIR	Priority: 3
Name: pull list statistics		
Description: Log number of items assigned to each branch, number of items on pull list when printed, and number of items triggered, by branch and day.		
Related Reqs:	Related Process	

Req ID: 5152	Source: ACQ	Priority: 3
Name: on-order hold ratios		
Description: Include hold ratios for on order records that do not yet have circulating copies.		
Related Reqs:	Related Process	

Category: Holds, Requests

Req ID: 5264	Source: CIR	Priority: 3
Name: holds from patron record		
Description: Ability for staff to place holds directly from patron record.		
Related Reqs: 7010		Related Process
Req ID: 5267	Source: CIR	Priority: 3
Name: default hold pickup location		
Description: When patron places hold, the pickup location defaults to the patron's home library.		
Related Reqs:		Related Process
Req ID: 5263	Source: CIR	Priority: 3
Name: 'not wanted after' holds		
Description: Patrons can enter Not Wanted After date. Holds are removed from patron hold list after Not Wanted After date. Do not send cancellation notice. Default to two years.		
Related Reqs:		Related Process
Req ID: 5262	Source: CIR	Priority: 3
Name: 'not wanted before' holds		
Description: Patrons can enter Not Wanted Before date. Request process does not start until this date.		
Related Reqs:		Related Process
Req ID: 5179	Source: CIR	Priority: 3
Name: freezing holds (staff)		
Description: Staff can freeze and unfreeze holds for patrons without requiring a patron identification number (PIN).		
Related Reqs:		Related Process

Req ID: 5176	Source: CIR	Priority: 3
Name: freezing holds (patrons)		
Description: Patrons can freeze any hold at any time, except those on the hold shelf. Hold continues to move up within the queue but will not trigger while frozen. Patron can specify a date to 'unfreeze' the hold.		
Related Reqs:		Related Process
Req ID: 1803	Source: CIR	Priority: 2
Name: hold first available copy		
Description: Allow staff and patrons to place holds on first available copies of materials, including first available copies of specific magazine issues or specific volumes in a multi-volume set.		
Related Reqs: 5268		Related Process
Req ID: 1802	Source: CIR	Priority: 1
Name: hold 'any copy'		
Description: Allow patrons to choose 'any copy' on titles with volumes, if patron does not have volume preference.		
Related Reqs:		Related Process
Req ID: 5266	Source: CIR	Priority: 3
Name: hold 'any copy except'		
Description: When staff member places a hold on a title, they can specify 'any copy except' and enter barcodes for unwanted copies.		
Related Reqs:		Related Process
Req ID: 5254	Source: CIR	Priority: 3
Name: item-level holds		
Description: Ability to place holds on a specific item.		
Related Reqs:		Related Process

Req ID: 5388	Source: CIR	Priority: 2
Name: multiple format holds		
Description: Ability to place a hold that can be filled by one or more formats or editions, as specified by the patron. For example, a patron could place a hold on "War and Peace" that could be filled by several editions of the book, or by the audiobook, but not by the DVD.		
Related Reqs: 5189 7301		Related Process

Req ID: 5260	Source: CIR	Priority: 3
Name: holds on non-circulating items		
Description: Ability to place holds on non-circulating items, such as new issues of magazines. The hold is 'frozen' until the item starts circulating. There needs to be a special indicator in the item record to designate that a currently non-circulating item will eventually start circulating.		
Related Reqs:		Related Process

Req ID: 5225	Source: CIR	Priority: 3
Name: hold cancellation log		
Description: Keep a log of hold cancellations: item record number, patron record number, hold placement date, hold cancellation date, cancellation type (hold expired in queue, hold expired on hold shelf, item became unavailable, cancelled by patron, cancelled by staff, etc.)		
Related Reqs: 5222		Related Process

Category: Holds, Queue

Req ID: 5245 **Source:** CIR **Priority:** 3
Name: single holds queue
Description: Maintain single hold queue for bibliographic and item level holds.
Ability to specify items by barcode.

Related Reqs: **Related Process**

Req ID: 5243 **Source:** CIR **Priority:** 3
Name: distinguish staff holds from patron holds
Description: Ability to distinguish staff-placed holds from patron-placed holds.

Related Reqs: **Related Process**

Req ID: 5247 **Source:** CIR **Priority:** 3
Name: modify hold from hold list
Description: Ability to modify or cancel a hold from the hold list screen.

Related Reqs: **Related Process**

Req ID: 1880 **Source:** CIR **Priority:** 3
Name: patron id visible in holds queue
Description: Holds queue display includes patron name and barcode.

Related Reqs: **Related Process**

Req ID: 5252 **Source:** CIR **Priority:** 3
Name: holds ordering
Description: Ability for staff to move a hold to a different location in the queue.
Ability to move hold to top of queue with one click. Require staff to enter a hold note with date, time, and username. Retain original hold date.

Related Reqs: **Related Process**

Req ID: 5255	Source: ACQ	Priority: 3
Name: transfer holds between bibliographic records		
Description: Ability to transfer holds from one bibliographic record to another, singly or in batch, sorting by date of original hold request.		
Related Reqs: 5253		Related Process

Req ID: 5253	Source: ACQ	Priority: 3
Name: merge bibliographic records		
Description: Ability to merge bibliographic records, combining their holds queues in order of request date.		
Related Reqs: 5255		Related Process

Req ID: 5244	Source: CIR	Priority: 3
Name: pickup location change		
Description: Staff may change pickup location at any time, per patron request. If item is already on hold shelf, reset expiration date of hold; put item in transit; print new holds slip with special symbol to denote that the pickup location has been changed. Patron can change pickup location only before the hold is ready for pickup.		
Related Reqs:		Related Process HOL-126

Category: Holds, Pull Lists

Req ID: 5232	Source: CIR	Priority: 3
Name: pull map		
Description: System maintains a single, editable table for all branches, listing the order in which branches are asked to fill holds. Branches with equal table level are asked randomly. Allow individual branches to be skipped on a temporary or permanent basis.		
Related Reqs:		Related Process HOL-050
Req ID: 5240	Source: CIR	Priority: 3
Name: pull list fields		
Description: Ability to define pull list fields and sort order. A typical pull list would include the following fields: romanized title, shelf location, call number, bibliographic record number, item type, patron record number, patron request date, number of days hold has been active (i.e. not frozen), number of times this hold has appeared on this branch's pull list, only copy designation (if this branch has the only copy of an item).		
Related Reqs:		Related Process
Req ID: 5228	Source: CIR	Priority: 3
Name: pull list sorted by shelf location		
Description: Ability to organize pull list data by physical shelving location within building. This may differ from building to building.		
Related Reqs:		Related Process
Req ID: 5231	Source: CIR	Priority: 3
Name: more holds than copies		
Description: Do not list a title on a pull list more times than the branch has copies on the shelf.		
Related Reqs:		Related Process

Req ID: 5239	Source: CIR	Priority: 3
Name: repeat items on pull lists		
Description: When printing pull list, print separate list of holds that have appeared more than a configurable number of times in a row on this branch's pull list. (The limiting number may be configured per branch.)		
Related Reqs: 5240		Related Process

Req ID: 5403	Source: CIR	Priority: 3
Name: any copy fills hold		
Description: Any copy of a title will fill a bibliographic-level hold when it is scanned. (I.e., staff need not find the specific item that has triggered a hold; the hold is transferred to the scanned item.)		
Related Reqs: 5232		Related Process

Req ID: 5229	Source: CIR	Priority: 3
Name: item status determines pull list eligibility		
Description: Choose what items go on a pull list based upon item status (available, in transit, etc.). Ability to define which item statuses are available to fill holds.		
Related Reqs:		Related Process

Req ID: 5237	Source: CIR	Priority: 3
Name: recycle holds		
Description: When rolling hold has failed to be filled by the last branch on the pull map, recycle the hold request if there are available copies; if there are checked-out copies, keep the hold in the queue; otherwise, cancel the hold and send cancellation notice to patron.		
Related Reqs: 5232		Related Process HOL-050

Req ID: 5236	Source: CIR	Priority: 3
Name: holds, immediate rollover		
Description: Holds roll immediately to the next branch if item status changes to unavailable, or if wait time is complete.		
Related Reqs: 5232		Related Process

Req ID: 5233

Source: CIR

Priority: 3

Name: hold rollover days

Description: Ability to control which days auto-transfer of holds occurs, on a per-branch basis.

Related Reqs: 5232

Related Process HOL-070

Category: Holds, Triggering

Req ID: 5165	Source: CIR	Priority: 3
Name: print hold slips automatically		
Description: System parameter determines at what point hold slips are automatically printed. By default, hold slips are printed when hold is triggered at check-in.		
Related Reqs:		Related Process HOL-090
<hr/>		
Req ID: 5164	Source: CIR	Priority: 3
Name: reprint hold slips		
Description: Ability to reprint hold slips as needed.		
Related Reqs: 5165		Related Process HOL-090
<hr/>		
Req ID: 5173	Source: CIR	Priority: 3
Name: hold slip formatting		
Description: Hold slips can be customized to include any field from the patron record and/or item record, in any position and orientation on the slip. Font, font size, and font weight are customizable. In addition, hold slip may include a branch symbol (gif or jpg format).		
Related Reqs:		Related Process HOL-090
<hr/>		
Req ID: 5170	Source: CIR	Priority: 3
Name: 'behind the desk' indicator		
Description: Print 'behind the desk' indicator on holds slip, for patrons who have this flag in their patron record.		
Related Reqs:		Related Process HOL-090
<hr/>		
Req ID: 5172	Source: CIR	Priority: 3
Name: delay item status change to ready for pickup		
Description: When items are checked in and trigger holds, immediately change item status to 'Reserved'; then change status to 'On Hold Shelf' after a configurable delay.		
Related Reqs:		Related Process HOL-080

Req ID: 5171	Source: CIR	Priority: 3
Name: delay opportunistic filling		
Description: Delay opportunistic filling for a configurable amount of time at any location other than the pickup location, if the pickup location has an available item on the shelf.		
Related Reqs:		Related Process HOL-056

Req ID: 5169	Source: CIR	Priority: 3
Name: use in-transit item to fill hold		
Description: If a hold is triggered and item is in transit, no other item may fill the hold. (This restriction should be configurable by system parameter.)		
Related Reqs:		Related Process HOL-100

Req ID: 5186	Source: CIR	Priority: 3
Name: transit alert report		
Description: Ability to report on items that have been in transit to a pickup location for longer than a configurable number of days.		
Related Reqs:		Related Process HOL-100

Req ID: 5250	Source: CIR	Priority: 3
Name: triggered hold becomes unavailable		
Description: If an item that has triggered a hold changes to a non-circulating status, remove the item from the hold, put the hold at the top of its queue, and restart normal hold processing.		
Related Reqs: 5167		Related Process HOL-101

Req ID: 5404	Source: CIR	Priority: 3
Name: checking out held item to wrong patron		
Description: If a held item is checked out to the wrong patron, the hold is automatically restarted.		
Related Reqs:		Related Process HOL-101

Req ID: 5167	Source: CIR	Priority: 3
Name: untrigger a hold		
Description: Ability to reverse a triggered hold: delete item barcode from hold; prompt for status of item (e.g. 'Damaged'); cancel pickup notice; restart normal hold processing.		
Related Reqs: 5250		Related Process: HOL-111

Category: Holds, Clear Hold Shelf

Req ID: 5161	Source: CIR	Priority: 3
Name: clear hold shelf process		
Description: Clear Hold Shelf process removes holds from items that have expired on the hold shelf, and generates a report (aka clear hold shelf report) listing items to be cleared from hold shelf. Clear hold shelf report can be printed on letter-size or receipt-size paper. Items for patrons whose holds are held behind customer service desk are listed separately. Report may be printed by categories, where items are sorted by item type and then by patron name/alias. Report can be reprinted. Cleared items are given a new status (e.g. 'Cleared'). Last hold shelf location is retained in item record. Cleared item is not attached to next hold, put in transit, or shown as available until checked in.		
Related Reqs:		Related Process: HOL-121

Req ID: 5248	Source: CIR	Priority: 3
Name: hold pickup extension		
Description: Ability to extend hold pickup deadline. Extension is limited by system parameters (number of days, number of extensions). Reprint holds slip with symbol indicating extension was done.		
Related Reqs:		Related Process: HOL-120

Category: Holds, Batch Processes

Req ID: 5221 **Source:** CIR **Priority:** 3

Name: holds, change pickup location in batch per patron

Description: Ability to change pickup location for all of a patron's holds in a single process.

Related Reqs: **Related Process**

Req ID: 5159 **Source:** CIR **Priority:** 3

Name: holds, cancel in batch per review file

Description: Cancel holds as an update from a review file, with option to disable notices.

Related Reqs: **Related Process**

Req ID: 5158 **Source:** CIR **Priority:** 3

Name: holds, change pickup location in batch per location

Description: Ability to change pickup location for all holds with a specified current pickup location.

Related Reqs: **Related Process**

Req ID: 5157 **Source:** CIR **Priority:** 3

Name: holds, update in batch per bibliographic record

Description: Ability to modify all holds attached to a bibliographic record. At a minimum, ability to change hold expiration date.

Related Reqs: **Related Process**

Category: Holds, Delivery

Req ID: 5199 **Source:** CIR **Priority:** 3

Name: holds delivery

Description: System supports mail delivery of holds. (See Bradley Bonner report, attached.)

Related Reqs: **Related Process**

Category: Check-Out Function, General

Req ID: 5062 **Source:** CIR **Priority:** 3
Name: check-out by barcode
Description: Ability to check items out by barcode only.

Related Reqs: **Related Process**

Req ID: 5070 **Source:** CIR **Priority:** 3
Name: check-out transaction log
Description: Log transactional data about check-outs: date, time, location, patron type, zipcode, title, type (first-time or renewal). Remove patron identifying information.

Related Reqs: **Related Process**

Req ID: 5064 **Source:** CIR **Priority:** 3
Name: fines screen
Description: During check-out, the patron's fines list appears first (if account balance is positive).

Related Reqs: **Related Process**

Req ID: 2078 **Source:** CIR **Priority:** 3
Name: hourly check-out statistics
Description: Have hourly check-out stats by terminal.

Related Reqs: **Related Process**

Category: Check-Out, First-time

Req ID: 5060	Source: CIR	Priority: 3
Name: checking out held items		
Description: Allow title that has untriggered holds to be checked out without staff intervention. (See REQ-5057 re loan rules.)		
Related Reqs: 5057		Related Process
Req ID: 5059	Source: CIR	Priority: 3
Name: checking out items with unavailable status		
Description: Allow item with non-available status (missing, in-transit, etc.) to be checked out without staff intervention unless the item is checked out to another patron or 'ready for pick-up' for another patron.		
Related Reqs:		Related Process
Req ID: 5400	Source: OUT	Priority: 1
Name: checking out same item		
Description: During check-out process, provide an indicator of whether the same patron has checked out the same item before. Ability to enable this indicator by patron type and check-out location. (This feature is required by Library Outreach staff and is not generally required elsewhere. To be effective, it requires patrons to opt-in to retaining check-out history.)		
Related Reqs:		Related Process
Req ID: 5067	Source: CIR	Priority: 3
Name: check-out of untriggered holds		
Description: If a patron checks out a title that is on their hold list, the title on their hold list is automatically canceled.		
Related Reqs:		Related Process

Req ID: 5068	Source: CIR	Priority: 3
Name: fast add		
Description: If an item is found not to be cataloged during the check-out process, require only title, format, barcode, and (optional) ISBN, and make location code Service Center. Due date should be calculated based on format, according to loan rules.		
Related Reqs:		Related Process

Req ID: 5055	Source: CIR	Priority: 3
Name: check-out receipts		
Description: Check-out receipt: header and footer text is customizable (including title). Default fields include date, time, patron record number, patron name, romanized item title, item barcode, and due date for each item. Self check-out and Circulation Desk receipts are identical.		
Related Reqs:		Related Process

Req ID: 5052	Source: CIR	Priority: 3
Name: check-out receipt optional		
Description: Printing of due date receipt optional.		
Related Reqs:		Related Process

Req ID: 2099	Source: CIR	Priority: 3
Name: check-out item list		
Description: Ability to print a list of checked-out items, as required.		
Related Reqs:		Related Process

Category: Check-Out, Renewals

Req ID: 5084 **Source:** CIR **Priority:** 3
Name: renew by item or by patron
Description: Ability to renew both from the item record (i.e. scanning an item barcode) and from the patron record (i.e. scanning a patron barcode and going to the checked-out items list. Ability to renew a batch of items, including items from multiple patron accounts, without visiting each patron record. Ability to collect fines on specific items, without visiting patron accounts.

Related Reqs:**Related Process**

Req ID: 5080 **Source:** CIR **Priority:** 3
Name: renewal reuses loan rule
Description: Ability to reuse same loan rule for renewal. (See REQ-5057 re loan rules.)

Related Reqs: 5057**Related Process**

Req ID: 5083 **Source:** CIR **Priority:** 3
Name: count check-outs and renewals
Description: Count all check-outs and renewals per item.

Related Reqs:**Related Process**

Req ID: 5077 **Source:** CIR **Priority:** 3
Name: renewal receipt
Description: Renewal receipts include the same information as the check-out receipt, but designates items not renewed.

Related Reqs:**Related Process**

Req ID: 5076 **Source:** CIR **Priority:** 3
Name: renewal, batch
Description: Staff can renew multiple items and generate a single renewal receipt.

Related Reqs:**Related Process**

Category: Check-Out, Self Check-Out Station

Req ID: 5090 **Source:** CIR **Priority:** 3
Name: self check-out holds review
Description: Ability to view holds and patron position vs. number of circulating copies at self check-out station.

Related Reqs: **Related Process**

Req ID: 5095 **Source:** CIR **Priority:** 3
Name: self check-out audible cues
Description: Self check-out stations provide audible cues for successful and erroneous check-out.

Related Reqs: **Related Process**

Req ID: 5092 **Source:** CIR **Priority:** 3
Name: self check-out shows holds ready for pickup
Description: Self check-out station displays holds ready for pickup, then removes each hold as the item is checked out.

Related Reqs: **Related Process**

Req ID: 5096 **Source:** CIR **Priority:** 3
Name: self check-out timeout
Description: Self check-out stations provide customizable automatic timeout.

Related Reqs: **Related Process**

Req ID: 5094 **Source:** CIR **Priority:** 3
Name: self check-out due date receipts optional
Description: Receipt printing is optional at self check-out stations.

Related Reqs: **Related Process**

Req ID: 5088 **Source:** CIR **Priority:** 3
Name: self check-out station renewals
Description: Ability to renew items at self check-out station.

Related Reqs: **Related Process**

Req ID: 5089	Source: CIR	Priority: 3
Name: self check-out fine payments		
Description: Ability to view and pay fines at self check-out stations, with fines highly visible during normal check-out process.		
Related Reqs:	Related Process	

Req ID: 5087	Source: CIR	Priority: 3
Name: self check-out station print lists		
Description: Ability to print lists from self check-out stations, including: checked-out items in order of due date; held items; paid and unpaid fines.		
Related Reqs:	Related Process	

Req ID: 5093	Source: CIR	Priority: 3
Name: self check-out log		
Description: Include a system log that records on a daily basis how many check-outs and renewals occurred at each terminal per hour.		
Related Reqs:	Related Process	

Category: Check-Out, Offline Circulation

Req ID: 5074 **Source:** CIR **Priority:** 3
Name: offline circulation
Description: Ability to save check-out data to be uploaded to ILS later in the event of internet connectivity problems.

Related Reqs: **Related Process**

Req ID: 5072 **Source:** CIR **Priority:** 3
Name: offline circulation check-out period
Description: Ability to easily choose appropriate check-out period in offline circulation.

Related Reqs: **Related Process**

Req ID: 5073 **Source:** CIR **Priority:** 3
Name: offline circulation check-out receipt
Description: Ability to print check-out receipt on request, or repress check-out receipt if desired.

Related Reqs: **Related Process**

Req ID: 1760 **Source:** CIR **Priority:** 3
Name: offline circulation error messages
Description: Offline circulation system produces meaningful errors during upload.

Related Reqs: **Related Process**

Category: Check-In Function, General

Req ID: 5007 **Source:** CIR **Priority:** 3
Name: check-in modes
Description: System provides two check-in modes: a tab from the patron record, and a separate check-in function.

Related Reqs: **Related Process**

Req ID: 5132 **Source:** CIR **Priority:** 3
Name: check-in screen links to patron and fine information
Description: Ability to access patron record and fine history and process payments from check-in screen.

Related Reqs: **Related Process**

Req ID: 5335 **Source:** CIR **Priority:** 3
Name: check-in screen displays recent patron list
Description: Check-in and check-out screens display names of last (system configurable) X patrons.

Related Reqs: **Related Process**

Req ID: 5014 **Source:** CIR **Priority:** 3
Name: check-in screen displays recent item list
Description: Check-in screen displays history of items checked in, with ability to scroll. Option to undo any transaction, adding item back to patron record, restoring item status, reversing any fines assessed, and reversing any holds filled. Clicking on a previously checked-in item goes to the full item record, which displays current and last patron.

Related Reqs: 5406 **Related Process**

Req ID: 5009 **Source:** CIR **Priority:** 3
Name: print check-in receipts
Description: Ability to print check-in receipts with customizable content, layout, and formatting.

Related Reqs: **Related Process**

Category: Check-In, Claims

Req ID: 5405	Source: CIR	Priority: 3
Name: claim processing		
Description: Check-in screen provides buttons or shortcuts for processing common claims (claims returned, claims never checked out). Process checks and updates claim counters in patron record, requires supervisory approval for excessive claims, sets item record status, waives fines as appropriate.		
Related Reqs: 5026, 5410		Related Process
Req ID: 5026	Source: CIR	Priority: 3
Name: claim return history		
Description: Patron record stores claim return log, including title, item barcode, date of claim, date of return (if applicable), and current status of item. Claim return items remain in patron's history even if later returned.		
Related Reqs:		Related Process
Req ID: 5028	Source: CIR	Priority: 3
Name: claim return limits		
Description: Set number of claim returns allowed; additional claim returns require supervisor authorization.		
Related Reqs:		Related Process
Req ID: 5147	Source: CIR	Priority: 3
Name: claims return counter adjustment		
Description: Ability to adjust 'claims return' counter in patron record, with supervisory approval.		
Related Reqs:		Related Process

Category: Check-In, Waive Fines & Backdating

Req ID: 5034 **Source:** CIR **Priority:** 3

Name: waive fines during check-in

Description: Ability to waive fines during check-in process. Option to waive fines for the current item, the current patron, or every item until the waive fines option is disabled.

Related Reqs: 5142 **Related Process**

Req ID: 5021 **Source:** CIR **Priority:** 3

Name: backdating checked-in items

Description: Check-in module provides a backdate button that allows calendar selection of date to backdate to; backdating remains in effect until manually turned off; screen provides visual cues to remind staff that backdating is in effect.

Related Reqs: **Related Process**

Req ID: 5022 **Source:** CIR **Priority:** 3

Name: retroactive backdating of checked-in items

Description: Ability to select items already checked in and retroactively backdate those items, using a button with a calendar selector. Any fines resulting from original check-in are reversed.

Related Reqs: **Related Process**

Req ID: 5023 **Source:** CIR **Priority:** 3

Name: item records retain actual check-in date and backdated check-in d

Description: When check-in is backdated, item records retain both actual date of check-in and backdate used.

Related Reqs: **Related Process**

Category: Check-In, Lost and Damaged Items

Req ID: 5105 **Source:** CIR **Priority:** 3

Name: process damaged item

Description: System provides a 'button' for processing damaged items:
1) Print item record with today's date and completion date (six weeks from today). This is the problem slip.
2) Check in item without fines and without triggering holds.
3) Change item status to 'Damaged'.
4) Insert message in item record.
5) Insert message in patron record.
6) Assess charge.
7) Generate letter to patron identifying damaged item and fine assessment.

Related Reqs: 5391 5407

Related Process

Req ID: 5391 **Source:** CIR **Priority:** 3

Name: process lost item

Description: System provides a 'button' for processing lost items:
1) Remove from patron's checked-out list.
2) Retain patron ID in item record.
3) Change item status to 'Lost'.
4) Insert message in item record.
5) Insert message in patron record.
6) Assess charge.

Related Reqs: 5105 5407

Related Process

Req ID: 5407	Source: CIR	Priority: 3
Name: process missing pieces		
Description: System provides a 'button' for processing missing items: (Phase 1 - initial check-in) 1) Print item record with today's date and completion date (six weeks from today). This is the problem slip. 2) If item was already checked in, check back out to patron; untrigger any triggered holds. 3) If there are no holds on item, renew for current patron. 4) Change item status to 'Problem Shelf'. 5) Insert message in item record. 6) Insert message in patron record. 7) Generate letter to patron identifying missing item and replacement cost. (Phase 2 - after six weeks) 1) Check in item without fines and without triggering holds. 2) Update item status to 'Evaluate' or 'Damaged' based on item type. 3) Assess charge based on item type. 4) Remove messages.		
Related Reqs: 5105 5391	Related Process	

Req ID: 5138	Source: CIR	Priority: 3
Name: lost and paid item, check-in process		
Description: Note: This requirement is subject to Business Office approval. When a previously paid-for lost item is checked in, notify staff that it is a 'lost and paid' item. Record the return of a lost and paid item in the patron record notes field. If the item is refund-eligible and was paid for less than twelve months ago, apply a credit for the value of an item to the patron record. Calculate an overdue fine (subject to system rules) and apply to the patron record. Provide an option to print a refund request for the patron. Provide an option to print a copy of the original payment for the patron to submit with the refund request.		
Related Reqs:	Related Process	

Req ID: 5140	Source: CIR	Priority: 3
Name: negative balance report		
Description: Ability to run a report of accounts with negative balances as of one week ago. (This allows time for staff to check returned or replaced items to ensure that the credit is valid.) Provide an option for issuing refunds for selected accounts on the resulting list.		
Related Reqs:	Related Process	

Req ID: 1933 **Source:** CIR **Priority:** 3

Name: process item replacement

Description: System provides a 'button' for processing item replacements. Requires appropriate permissions level to execute.

- 1) Print item record with today's date. This is the evaluation slip.
- 2) Check in item from patron's checked-out list.
- 3) Change item status to 'Replaced'. Holds do not trigger.
- 4) Set item location to 'Service Center'.
- 5) Insert message in item record.
- 6) Insert message in patron record.
- 7) Waive charges to patron record.
- 8) Print check-in receipt (optional).

Related Reqs:

Related Process

Category: Charges, General

Req ID: 5103	Source: CIR	Priority: 3
Name: fine calculator		
Description: Fine Calculator calculates total fines owed if patron pays today, as well as subtotal of selected overdue items in checked-out list.		
Related Reqs:		Related Process
Req ID: 5102	Source: CIR	Priority: 3
Name: fines based on open days of check-out location		
Description: Calculate fines based on open days of check-out location.		
Related Reqs:		Related Process
Req ID: 5112	Source: CIR	Priority: 3
Name: maximum fine		
Description: Set maximum fine based on item type (e.g. generic=.50) AND not to exceed cost of item.		
Related Reqs:		Related Process
Req ID: 5097	Source: CIR	Priority: 3
Name: manual charges		
Description: Ability to add manual charges with notes and use optional predefined charges (damage charges with explanations or insufficient funds check).		
Related Reqs:		Related Process
Req ID: 5142	Source: CIR	Priority: 3
Name: fine adjustment		
Description: Any staff member can adjust existing fine amounts or reinstate fines that have been waived.		
Related Reqs: 5034		Related Process

Req ID: 5352

Source: CIR

Priority: 3

Name: fine comments field

Description: Fine record includes a comments field, editable by staff. Comments can be added and edited.

Related Reqs:

Related Process

Category: Charges, Payments

Req ID:	5127	Source:	CIR	Priority:	3
Name:	payment type				
Description:	Ability to specify payment type (cash, check, credit, debit, waive, fresh start) for each charge.				
	Related Reqs:		Related Process		
<hr/>					
Req ID:	5129	Source:	CIR	Priority:	3
Name:	credit card payments				
Description:	Accept credit and debit card payments at accounts desks, self check-out stations, and through the public web interface. Payments should be visible in the patron account immediately, and related blocks should be removed immediately.				
	Related Reqs:		Related Process		
<hr/>					
Req ID:	5128	Source:	CIR	Priority:	3
Name:	charge types				
Description:	Ability to record charge type for every transaction. Charge types include Overdue, Replacement, Donation, Manual Charge, Copying, etc. Additional charge types can be configured.				
	Related Reqs:	6008	Related Process		
<hr/>					
Req ID:	5401	Source:	CIR	Priority:	3
Name:	payment receipts				
Description:	Payment receipts show date, branch and workstation, vendor transaction number, patron record number, patron name, form of payment, last four digits of credit card, fines/charges detail, payment amount, account balance. System provides multiple configurations for payment receipts (e.g. self-check station receipts may use a different paper size and layout). Ability to print a separate "lost and paid" receipt.				
	Related Reqs:		Related Process		

Req ID: 5136	Source: CIR	Priority: 3
Name: lost and paid receipt		
Description: When patron makes a full or partial payment for a refund-eligible item, generate numbered 'lost and paid' receipt with the receipt number attached to the item record notes. Receipt must be customizable to comply with auditor and business office requirements.		
Related Reqs: 5138		Related Process

Category: Charges, Waiving

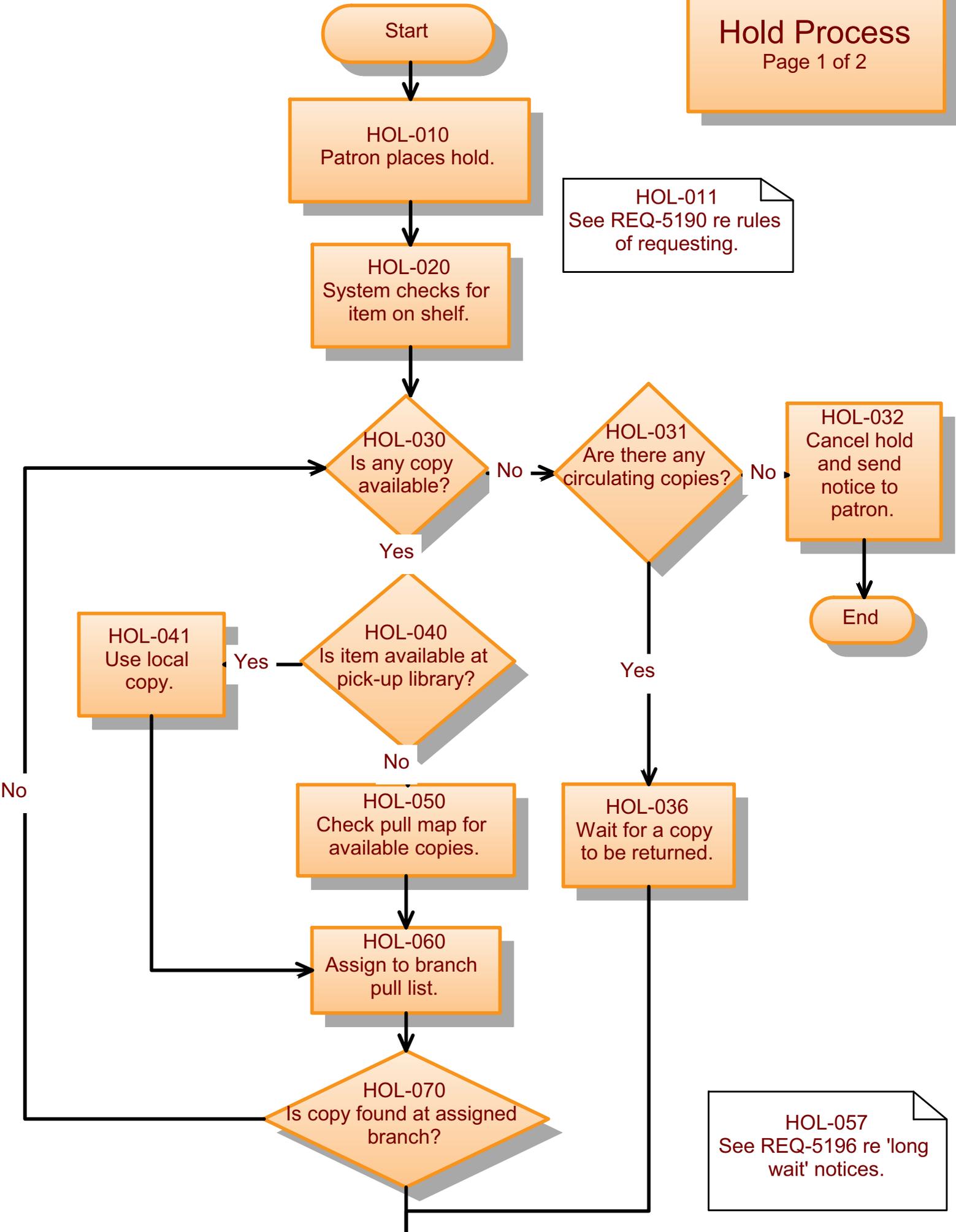
Req ID: 5125	Source: CIR	Priority: 3
Name: partial payments		
Description: Ability to collect partial payments or waive partial charges on selected items in fines list.		
Related Reqs:		Related Process

Req ID: 5149	Source: CIR	Priority: 3
Name: waive fines retroactively		
Description: Ability to waive fines from check-in screen after items have been checked in.		
Related Reqs:		Related Process

Req ID: 2107	Source: CIR	Priority: 3
Name: waiving charges		
Description: When waiving charges, provide an option to add comments, such as the type of waiver.		
Related Reqs:		Related Process

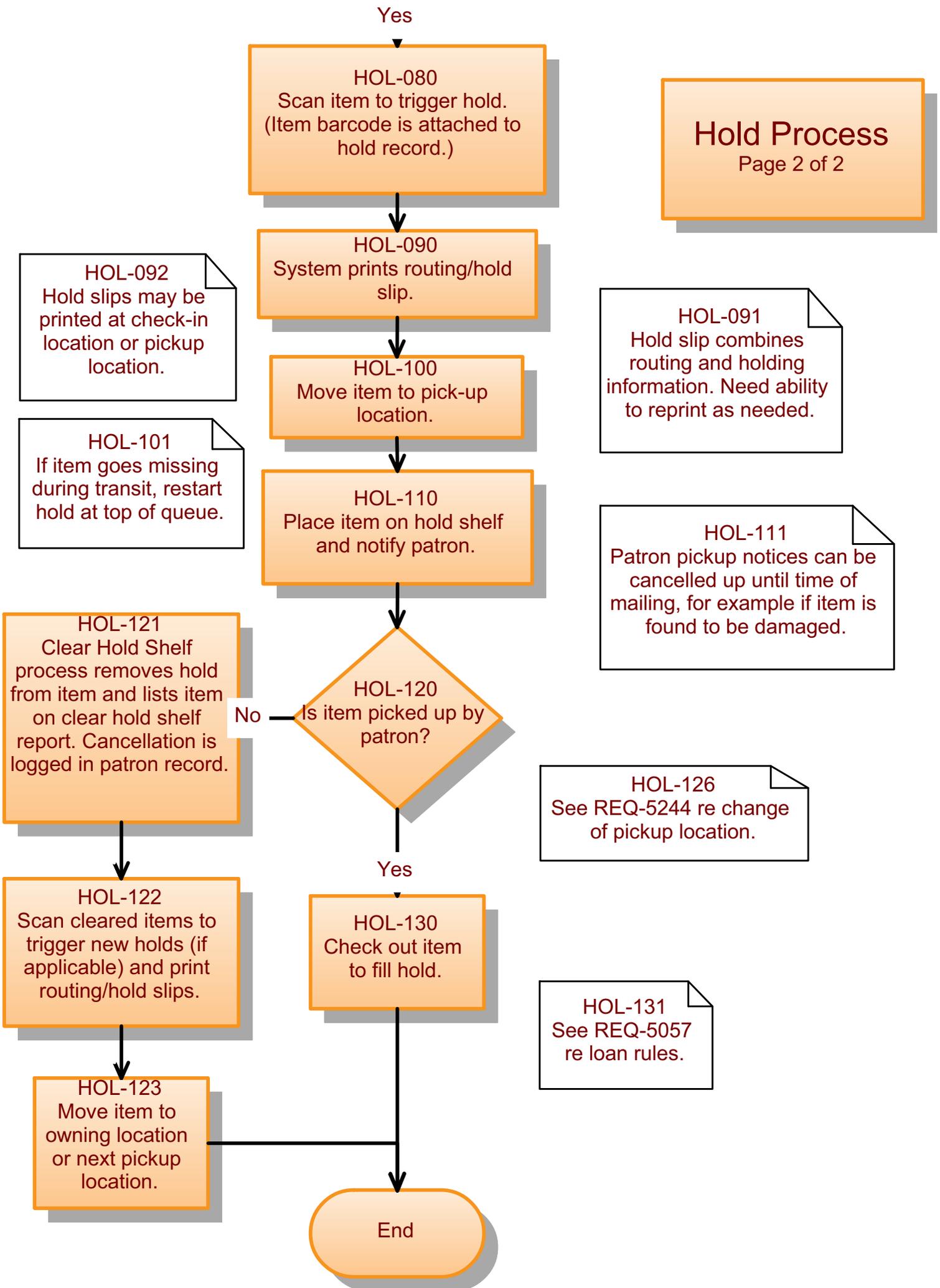
Category: Charges, Collections

Req ID: 5121	Source: CIR	Priority: 3
Name: collections flagging		
Description: Flag patron record for Collections processing if account is greater than some configurable limit, and some configurable number of days have elapsed since sending of a billing notice. Eligibility limits may differ per patron type.		
Related Reqs:		Related Process
Req ID: 5120	Source: CIR	Priority: 3
Name: remove fines-related block		
Description: Remove fine-related blocks (maximum fines block, collections block, etc.) immediately when charges are paid down to required threshold, whether payment is at customer service desk, at self check-out station, or online.		
Related Reqs:		Related Process
Req ID: 5380	Source: CIR	Priority: 3
Name: manage payment plans		
Description: System provides a facility for managing payment plans.		
Related Reqs: 5119		Related Process
Req ID: 5119	Source: CIR	Priority: 3
Name: report: payment plans and collections		
Description: Generate report of patrons by home branch who have payment plans or suspended collections to assist staff in tracking and managing these accounts.		
Related Reqs:		Related Process



Hold Process

Page 2 of 2



4. Use Cases

4.1 Use Case List

We have written use cases for selected, frequently-performed activities. These are included to supplement the requirements, and to highlight places where good software could bring great improvements in efficiency and ease of use. The steps of the use cases should be considered suggestive rather than prescriptive.

<i>Primary Actor</i>	<i>Use Cases</i>
Library Assistant	Patron Registration
Library Assistant	Item Check-Out
Library Assistant	Item Check-In
Library Assistant	Process Damaged Item
Library Patron	Self Check-Out Session

4.2 Patron Card Registration

Use Case ID:	USE-001		
Use Case Name:	Patron Card Registration		
Created By:	Lucien Kress	Last Updated By:	Lucien Kress
Date Created:	04/12/08	Date Last Updated:	04/12/08

Actors:	Library Assistant (LA)	
Description:	Patron registers for a new library card	
Trigger:	Patron turns in a registration form (paper or electronic)	
Preconditions:	Library Assistant is logged into ILS with appropriate privileges.	
Postconditions:	<ol style="list-style-type: none"> 1. Patron record is added to the database. 2. Patron receives a new library card. 3. Patron is able to use library resources. 	
	Stimulus	Response
Normal Flow:		R1: Library Assistant selects Patron Record screen and clicks 'New Patron'.
	S2: The system displays a registration form.	R2: LA enters patron name, birthdate, address, email address, and/or phone number, and clicks 'Check for Duplicates'.
	S3: System searches for possible duplicates. Search results are displayed with "address alert" patron records at the top. Remaining search results are sorted from most likely duplicate to least likely.	R3: If a likely duplicate exists, LA selects duplicate record, reviews the record, and clicks 'Use This Result' or 'Ignore This Result'.
		R4: If no likely duplicate exists, LA clicks 'Create New Record'.
	S5: The system displays an existing full record, or a blank new record form.	R5: LA fills in available patron information. Some fields are auto-filled based on configurable system algorithms. (E.g., patrons with a specific age and zipcode are auto-assigned an appropriate patron type. Patrons with a specific patron type are automatically given an appropriate expiration date.) LA clicks 'Check Address'.
	S6: System verifies patron address against USPS or another address verification vendor, and displays address options.	R6: LA selects best address. LA clicks 'Attach Barcode' and scans patron barcode into record.
	S7: System prompts to save, modify, or abandon new record.	R7: LA clicks 'Save' and hands new card to Patron.

Alternative Flows and Exceptions:	<ol style="list-style-type: none"> 1. The Library may change its policies with respect to patron identification, library card replacement, etc. The system will provide the ability to edit onscreen instructions, help files, “hover tips”, etc. to support staff in learning new procedures. 2. If a patron already has a current or expired library card, the registration wizard proceeds to update the record, attach a new barcode as necessary, and write any necessary information to the record (e.g. update the “Barcode Last Updated” field). LA is not forced to halt the wizard or start a different procedure to deal with lost or expired cards.
Includes:	The duplicate search function and the address function described in this use case may be accessible elsewhere in the system.
Priority:	3 (High)
Frequency of Use:	Thousands of times per month
Business Rules:	Patrons are limited to X free replacement cards per year; registration should not complete without checking the number of barcode changes and assessing charges as appropriate.
Assumptions:	
Notes and Issues:	On online registration form may provide patrons with a limited-use card, e.g. valid for use of licensed online resources, but prevent check-out, library computer use, and/or holds until patron identification is provided and address is verified.

4.3 Item Check-Out

Use Case ID:	USE-002		
Use Case Name:	Item Check-Out		
Created By:	Lucien Kress	Last Updated By:	Lucien Kress
Date Created:	04/12/08	Date Last Updated:	04/12/08

Actors:	Library Assistant (LA)	
Description:	LA checks out an item to a patron	
Trigger:	Patron brings an item to the circulation desk for check-out	
Preconditions:	LA is logged into ILS with appropriate privileges, and the check-out screen is displayed.	
Postconditions :	<ol style="list-style-type: none"> 1. Patron record is updated with checked-out item. 2. Item status is updated. 3. Transaction logs are updated, including patron check-out counters, item record history, etc. 4. Patron has received other services, such as item renewal, fine payment, etc., as desired. 	
	Stimulus	Response
Normal Flow:		R1: If Patron has library card, Library Assistant scans barcode. Otherwise, LA types last and first name into search field.
	S2: If more than one match exists, System displays matching patron records.	R2: LA reviews matching records and selects the correct record.
	S3: System displays patron record with blocks, messages, and fines visible on first screen.	R3: LA resolves blocks, messages, and fines, or postpones resolution as appropriate.
		R4: LA scans item.
	S5: System displays any loan rule violations.	R5: LA explains loan rules to Patron, resolves any violations if possible, and puts item aside if it cannot be checked out.
	S6: If check-out is allowed, System removes item from patron holds list, adds item to patron's check-out record and adds check-out information to item record.	R6: LA scans additional items until finished, then clicks 'Finished'.
	S7: System displays a list of items that can be renewed, in chronological order of due date.	R7: LA clicks 'Renewal All'; or selects some items and clicks 'Renew Selected'; or clicks 'Finish Without Receipt'; or clicks 'Finish With Receipt'.
	S8: System prints receipt if desired.	

Alternative Flows and Exceptions:	<ol style="list-style-type: none">1. LA may click on a patron in the list of last X patrons, to review or modify a previous transaction.2. If a loan rule prevents check-out, the System shows clearly which loan rules can be waived by LA, which require Supervisory approval to waive, and which cannot be waived.
Includes:	
Priority:	3 (High)
Frequency of Use:	Thousands of times per month
Business Rules:	See REQ-5057 for information about loan rules.
Assumptions:	
Notes and Issues:	

4.4 Item Check-In

Use Case ID:	USE-003		
Use Case Name:	Item Check-In		
Created By:	Lucien Kress	Last Updated By:	Lucien Kress
Date Created:	04/12/08	Date Last Updated:	04/12/08

Actors:	Library Assistant (LA)	
Description:	LA checks in an item	
Trigger:	LA receives an item from Patron, from bookdrop, or from tote	
Preconditions:	LA is logged into ILS with appropriate privileges, and the check-in screen is displayed.	
Postconditions :	<ol style="list-style-type: none"> 1. Checked-in item is removed from patron check-out record. 2. Patron information is moved to item record history fields. 3. Any holds are triggered. 4. Item status is updated. 5. Transaction logs are updated, including patron checkout history (if enabled), item record history fields, etc. 6. Missing pieces, damaged items, and lost items have been captured and assessed. 7. Patron has received other services, such as fine payment, etc., as desired. 	
	Stimulus	Response
Normal Flow:		R1: If item barcode is scannable, LA scans barcode; otherwise, LA types barcode number or title/author information into search field.
	S2: If more than one match exists, System displays matching item records.	R2: LA reviews matching records and selects the correct record.
	S3: System displays patron ID and item barcode. If item is overdue, or if patron has outstanding fines or overdue items, or if item has previously been lost and paid for, System gives audible and visual cues. If item triggers a local hold, System provides audible cue and prints hold slip. If item triggers a transit hold, System provides audible cue and prints transit slip.	R3: LA continues scanning items until finished.
	S4: System adds each scanned item to the list of items on the	R4: If Patron is present, LA offers to collect fines and/or begin

	screen, grouped by patron record.	refund process. If desired, LA clicks patron record.
	S5: System displays patron record, including blocks, fines, and messages on first screen.	R5: After resolving outstanding issues, LA clicks 'Finish Without Receipt'; or clicks 'Finish With Receipt'.
	S6: System prints receipt, if desired, and then displays last X items checked in, grouped by patron record.	
Alternative Flows and Exceptions:	<ol style="list-style-type: none"> 1. If an item is damaged or missing pieces, or if patron reports a lost item, LA clicks 'Process as Damaged' (or the corresponding button) to begin a wizard. 2. If Patron claims return or claims never checked out, LA clicks 'Process Claim' to begin a wizard. 3. LA may waive all fines or backdate all items by clicking the appropriate button. System shows a visible cue (alternate screen color) until waive/backdate is turned off. 4. Circulation Desks and backroom check-in desks use the same module; audible alerts can be enabled or disabled according to whether a Patron is present. 	
Includes:		
Priority:	3 (High)	
Frequency of Use:	Thousands of times per month	
Business Rules:		
Assumptions:		
Notes and Issues:		

4.5 Process Damaged Item

Use Case ID:	USE-004		
Use Case Name:	Process Damaged Item		
Created By:	Lucien Kress	Last Updated By:	Lucien Kress
Date Created:	04/12/08	Date Last Updated:	04/12/08

Actors:	Library Assistant (LA)	
Description:	LA processes a damaged item at check-in	
Trigger:	Patron returns a damaged item	
Preconditions:	1. LA is logged into ILS with appropriate privileges, and the check-in screen is displayed.	
Postconditions :	<ol style="list-style-type: none"> 1. Checked-in item is removed from patron check-out record. 2. Patron information is moved to item record history fields. 3. Patron record and item record are updated with damage information. 4. Item status is updated to 'Damaged'. 5. Fines have been assessed. 6. Any holds remain untriggered. 7. Transaction logs are updated, including patron checkout history (if enabled), item record history fields, etc. 8. Patron has received other services, such as fine payment, etc., as desired. 	
	Stimulus	Response
Normal Flow:		R1: LA clicks 'Process as Damaged' button and scans item.
	S2: System prompts for information about the damage.	R2: LA types damage description and clicks 'Continue'.
	S3: System calculates and displays charge based on item value and other system parameters.	R3: LA confirms charge with Patron, if present, and collects fines if desired. LA clicks 'Continue'.
	S4: System checks in item without triggering fines or holds; sets item status to 'Problem Shelf'; prompts for item location; records damage information in patron record and item record. System prints patron letter and problem slip.	R4: LA clicks 'Finish'.
	S5: System displays last X items checked in, grouped by patron record.	R5: LA gives letter to patron or files for mailing. LA attaches problem slip and copy of patron

		letter to damaged item and sends to problem shelf.
Alternative Flows and Exceptions:		
Includes:		
Priority:	3 (High)	
Frequency of Use:	Hundreds of times per month	
Business Rules:		
Assumptions:		
Notes and Issues:	Claim processing (REQ-5405), lost item processing (REQ-5391), and missing items processing (REQ-5407) all have a similar use case.	

4.6 Self Check-Out Session

Use Case ID:	USE-005		
Use Case Name:	Self Check-Out Session		
Created By:	Lucien Kress	Last Updated By:	Lucien Kress
Date Created:	04/12/08	Date Last Updated:	04/12/08

Actors:	Library Patron	
Description:	Patron uses a self check-out station	
Trigger:	Patron approaches a self check-out station	
Preconditions:	<ol style="list-style-type: none"> Patron is carrying a valid library card, or knows patron barcode number, or has set up a username in his/her account. Patron has a PIN, and knows what it is. 	
Postconditions:	<ol style="list-style-type: none"> Transactions have been recorded. 	
	Stimulus	Response
Normal Flow:	S1: Self check-out station (SCO) displays a prompt to scan barcode or enter username or barcode.	R1: Patron types or scans barcode or types username, and enters PIN.
	S2: SCO displays a welcome screen, including current number of items checked out, current number of overdue items, account balance, current number of holds, and number of holds ready for pickup.	R2: Patron selects 'Check Items Out' and begins scanning items.
	S3: If Holds button is chosen, SCO displays a split screen: holds ready to pick up in the top half, and items scanned in the bottom half. As a held item is scanned, it is moved from the top half to the bottom half.	R3: Patron finishes scanning items, then selects 'Renew Items'. (If a checked-out item is scanned, it is automatically renewed.)
	S4: SCO displays a list of checked-out items in due date order, and a 'Renew' button beside each item.	R4: Patron selects 'Renew' for each item s/he wants to renew, or selects 'Renew All'.
	S5: SCO updates list with new due dates, and/or status messages (e.g. 'Item on hold for another patron', 'Item has already been renewed 3 times', etc.).	R5: Patron finishes renewing items, then selects 'Review Holds'.
	S6: SCO displays a list of holds, including title, date placed, queue position, number of circulating copies, date not wanted before, date not wanted after, and	R6: Patron selects the 'Not Wanted Before' date for an item, then selects a new date from the popup calendar. Patron selects 'ASAP' to disable 'Not Wanted

	active/frozen status.	Before' date.
		R7: Patron selects the 'Not Wanted After' date for an item, and selects a new date from the popup calendar.
		R8: Patron selects the 'Active/Frozen' button for an item to toggle between Active and Frozen.
		R9: When Patron is finished managing queue, Patron selects 'Pay Fines' button.
	S10: SCO displays a list of fines, including item, due date, check-in date, number of (open) days late, and total fine. SCO displays total fines.	R10: Patron selects the checkboxes beside several items.
	S11: SCO shows subtotal of selected fines, along with total.	R11: Patron selects 'Select All' button and selects 'Pay All Fines' or 'Pay Selected Fines'.
	S12: SCO prompts for an amount to pay.	R12: Patron types amount to pay, and selects 'Pay Now'.
	S13: SCO prompts to scan credit card or debit card.	R13: Patron scans credit card or debit card, types PIN if applicable, and selects 'Confirm'.
	S14: SCO prints payment receipt.	R14: Patron selects 'Log Out'.
	S15: SCO prompts whether to print transaction receipt.	R15: Patron selects 'Print Receipt' or 'No Receipt'.
	S16: SCO prints transaction receipt, if desired, and returns to login prompt.	
Alternative Flows and Exceptions:	<ol style="list-style-type: none"> 1. If Patron fails to log out, SCO resets to login screen after a configurable idle period. 2. System may be configured to require PIN for all transactions, or just for account management and fine payment options. 	
Includes:		
Priority:	3 (High)	
Frequency of Use:	Thousands of times per month	
Business Rules:	Self check-out stations are subject to all of the loan rules, blocks and messages, etc. defined in the System.	
Assumptions:		
Notes and Issues:	<p>It is desirable, though not necessary, that the self check-out account management interface mirror the OPAC account management interface, as far as possible.</p> <p>Several advanced features have been removed from this use case, in order to avoid complexity. If patron linking (REQ-5409) is enabled in the ILS, Patron should be able to review and manage links on the SCO.</p>	

	In addition, Patrons may be able to sequence holds (REQ-1843), update address information, and enable or disable features such as check-out history (REQ-5046) and mailing preferences.
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Software Requirements Specification

for the

Outreach Module

of an

Integrated Library System

Version 3.0 final

Prepared by Lori Ayre and Lucien Kress
Galecia Group
January 28, 2009

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Revision History

Name	Date	Reason For Changes	Version
Lucien Kress	10/09/08	Initial Draft	1.0 draft
Lucien Kress	12/1/08	Revisions, Requirements workshop	2.0 draft
Lucien Kress	12/28/09	Revisions, Final	3.0 final

1. Introduction

1.1 Purpose and Perspective

This Software Requirements Specification (SRS) describes the functional and nonfunctional requirements for the Outreach Module of an Integrated Library System (ILS). The requirements were developed specifically for King County Library System, but are believed to be suitable for many large, urban, multiple-branch, centralized library systems.

The requirements in this SRS presuppose the general data structures and functionality of a full-fledged ILS. The Outreach Module will replace and enhance the current capabilities of commercially available ILSes, as well as add new functionality.

1.2 Product Scope and Features

The Outreach Module facilitates the processing of materials, patrons, and routes for Outreach programs. Specifically, the Outreach Module supports the following activities, among others:

- Managing routes for delivery materials to Outreach patrons.
- Managing records of patrons who are served by Outreach programs.
- Managing materials that are provided to Outreach programs.
- Managing holds, check-outs, and check-ins for Outreach patrons, including special processes for ensuring that hold expiration and check-out duration rules are sufficient to allow delivery to patrons.
- Managing special collections of materials. Collections may be permanent or temporary and may require transferring materials to or from branches or other collections.

The current specification presupposes the general functionality of an ILS and specifies only those requirements that directly or indirectly relate to Outreach activities. King County Library has previously published specifications for Acquisitions and Serials Management, Circulation, and Cataloging modules. Requirements for OPAC, web services, and management reporting are currently under development.

Moreover, the current specification is focused on functional characteristics of an Outreach Module. Data structures and user interfaces will require further specification and development using an iterative, prototype-oriented software development methodology.

1.3 Intended Audience

This SRS is intended both for library managers and staff who may contribute additional requirements or commentary, and for software project managers and developers who will implement the requirements. As such, it aims for a high level of readability for a non-technical audience, while providing enough specificity to be useful to a software developer.

It is assumed that when software development occurs, it will be in a highly collaborative and iterative environment in which end-users have multiple opportunities to review prototypes and refine the user interface and software functionality.

It is also assumed that the reader has a general understanding of Library services and processes and does not require definition of common Library terminology.

1.4 Document Conventions

The SRS includes requirements and use cases. Requirements include a reference to a process flowchart where appropriate. Use cases are included for some of the most frequently performed activities. They are intended to supplement the requirements and highlight activities that offer a great potential for increased efficiency and ease of use. Use cases should be considered to be contextual rather than prescriptive.

1.5 User Classes and Characteristics

Patron	A Patron is a customer of King County Library System, either possessing a library card or not, either on site of a community library or not, using either print materials, media materials, or electronic resources.
Outreach Staff	Outreach staff include managers, librarians, library technicians, library assistants, and library pages who are involved with designing and implementing Outreach programs, searching for materials, moving materials between libraries and Outreach locations, processing hold requests, check-outs, and check-ins, and developing statistics and analysis of Outreach programs.
Outreach Managers	Outreach Managers include management staff who oversee the Outreach programs.
Library Managers	Library Managers include Cluster and Site Managers who provide input to the Outreach programs.
Library Directors	Library Directors include members of the Library Executive Team who plan and direct Library services and priorities.

1.6 Operating Environment

- OE-1: The Outreach Module supports the needs of a large, multiple-branch library system. Specifically, the system must support a library system with 50 locations, 20 million circulations, purchasing and processing over 500,000 items per year. It is highly desirable that searches and reports can be processed during open hours without disrupting other system functions.
- OE-2: The Outreach Module shall operate on a Linux or Solaris server.
- OE-3: The Outreach Module shall be accessible through a web-browser or a Windows-compatible client.
- OE-4: If web-browser based, the Outreach Module shall be accessible through Microsoft Internet Explorer (v.6.0 and later) and Mozilla Firefox (v.2.0 and later).
- OE-5: The Outreach Module shall be accessible with screen-reading software, screen-magnification software, and other software programs designed to increase accessibility.

1.7 Design and Implementation Constraints

- CO-1: The Outreach Module shall use a fully relational database back-end.
- CO-2: The Outreach Module shall produce standards-compliant HTML.
- CO-3: The Outreach Module shall provide a development and training environment with the ability to migrate configurations to a production environment.
- CO-4: User rights and privileges will be controlled through security groups and/or “roles” that allow access control for individuals, workgroups, and arbitrary staff groups.
- CO-5: These requirements shall not constrain functionality or features of the Online Public Access Catalog (OPAC) module.

1.8 User Documentation

- UD-1: The software developer shall provide complete data specifications for authority records, bibliographic records, order records, item records, hold/request records, and other records maintained or accessed by the Outreach Module.
- UD-2: The software developer shall provide a thorough high-level description of major processes, including bibliographic record import and export, validation of bibliographic records against internal and external authority sources, and standard reports.
- UD-3: The system shall provide an online, hierarchical, and cross-linked help system in HTML that describes and illustrates all system functions.

1.9 Assumptions and Dependencies

- AS-1: The Outreach Module is part of an enterprise-level Library Automation System.
- AS-2: Outreach processes are consolidated at a central location, and accept input and provide services to multiple locations.
- DE-1: The Outreach Module relies on the data structures and functionality of an enterprise-level Library Automation System, including Acquisitions and Cataloging modules.
- DE-2: The Outreach Module interfaces with a variety of vendor websites, via published APIs and/or automated transfer of standard-format data files (e.g. USMARC21, EDIFACT).
- DE-3: The Outreach module interacts with a patron interface, also known as an Online Public Access Catalog (OPAC), accepting input in the form of materials searches and materials requests, and providing output in the form of bibliographic and item record displays and patron account information.

System Requirements

Category: Outreach: General

Req ID: 5802 **Source:** OUT **Priority:** 2
Name: outreach database support
Description: System supports synchronization of outreach patron and outreach route data with an external database (e.g. Microsoft Access).

Related Reqs: **Related Process**

Req ID: 2415 **Source:** OUT **Priority:** 3
Name: low-bandwidth support
Description: System can be accessed using a low-bandwidth network connection.

Related Reqs: **Related Process**

Req ID: 5816 **Source:** OUT **Priority:** 3
Name: offline utility
Description: System provides an offline utility for recording check-in and check-out transactions, in case the system is unavailable.

Related Reqs: **Related Process**

Category: Outreach: Route Management

Req ID: 5806 **Source:** OUT **Priority:** 3
Name: outreach routes and stops
Description: System stores Outreach routes and stops which are used to group patrons and schedule visits. Patron records can be assigned a route and stop, and outreach patrons can be queried by route or stop. Stops are easily moved between routes.

Related Reqs: 5412 **Related Process**

Req ID: 5807	Source: OUT	Priority: 2
Name: outreach route queries and reports		
Description: System supports querying of patrons by route and by stop; list patrons by route and by stop; search patrons at a specific stop by name, address, phone number, birthdate, etc.; list all addresses for a specific stop.		
Related Reqs:	Related Process	

Req ID: 5811	Source: OUT	Priority: 2
Name: outreach patron broadcast		
Description: Ability to send email and text message broadcasts to patrons on a specified route or at a specified stop. (For example, send an alert if a visit is cancelled due to weather.)		
Related Reqs:	Related Process	

Category: Outreach: Patron Management

Req ID: 2416	Source: OUT	Priority: 3
Name: outreach patron records		
Description: Patron records can be flagged as Outreach patrons; Outreach patron records can be queried and exported separately from other types of patron records.		
Related Reqs:	Related Process	

Req ID: 5803	Source: OUT	Priority: 2
Name: patron groups		
Description: Ability to define a group of patrons and perform batch tasks on the group. For example, define a group called "Historical Fiction Fans" and add selected patrons to the group.		
Related Reqs: 5804	Related Process	

Req ID: 2417	Source: OUT	Priority: 2
Name: volunteer patron type		
Description: Outreach volunteers can pick up holds for homebound patrons, when preauthorized. Volunteer uses their own card to pick up the hold, but the item is checked out to the homebound patron's account.		
Related Reqs: 5362		Related Process

Req ID: 5362	Source: CIR	Priority: 3
Name: patron record, pickup authorization field		
Description: Patron can review list of those authorized to pick up holds in the patron record. Hold is checked out to the patron who placed the hold, regardless of who picks it up.		
Related Reqs: 5410		Related Process

Req ID: 2396	Source: OUT	Priority: 1
Name: check-out history printout		
Description: Patron check-out history can be printed in an easily readable format. (Assumes patron has enabled check-out history.)		
Related Reqs: 5046		Related Process

Req ID: 2408	Source: OUT	Priority: 2
Name: print custom patron info from barcode		
Description: Ability to print custom labels from a patron record, e.g. displaying patron identifying information and Outreach route/stop information. Label contents and format can be saved, modified, and deleted at will.		
Related Reqs: 5322		Related Process

Category: Outreach: Collection Management

Req ID: 5393	Source: CIR	Priority: 3
Name: rotating collections		
Description: System supports rotating collections (such as large print and audiobook collections). Bibliographic records can be added or removed from the collection and can be updated in batch.		
Related Reqs:		Related Process

Req ID: 5818	Source: OUT	Priority: 3
Name: item transfer utility		
Description: System provides a utility for transferring batches of items between branches, used for example to move books into a mobile library, an outreach program collection, or a "just-in-time" warehouse. Utility includes ability to query for candidate materials; ability to save queries for repeated use; ability to manually select titles from query results; and ability to change records of all or selected items to move to new location. Mechanisms for moving items include changing location field, generating pull lists, etc. In addition, utility provides means to revert items to original location after a set period of time, and/or based on other criteria.		
Related Reqs: 5603		Related Process

Req ID: 5286	Source: CIR	Priority: 3
Name: sets and kits		
Description: Support sets (large number of items sharing one barcode) and kits (small number of items sharing one barcode). Ability to display the number of items and a list of descriptions.		
Related Reqs:		Related Process

Req ID: 5801	Source: OUT	Priority: 3
Name: missing kit items		
Description: Ability to flag items that are missing from a kit. Staff can mark an individual item as missing; search for kits with missing items; and view missing item details easily from the search results.		
Related Reqs:		Related Process

Req ID: 6003	Source: WEB	Priority: 3
Name: favorite searches		
Description: Patrons can save their favorite searches. Favorite searches are accessible in patron account. Favorite searches can be edited, copied, deleted, and printed in a friendly format defined by the Library. Favorite searches can be used to generate RSS feeds or book alerts (see REQ-6001).		
Related Reqs: 6001 7021 711		Related Process

Req ID: 5278	Source: CIR	Priority: 3
Name: suppression rules		
Description: System provides customizable 'Rules of Suppression' that specify whether patrons and staff can view authority, bibliographic, order, and item records in staff and public (OPAC) interfaces. Records may be visible to specific workgroups only; to all staff and patrons at specific locations; or to all staff and all patrons. (See REQ-5057 for related requirements on loan rules, and REQ-5190 for related requirements on holdability.)		
Related Reqs: 5057 5190 580		Related Process CAT180

Req ID: 5805	Source: OUT	Priority: 3
Name: collection visibility and requestibility		
Description: Collections of items can be suppressed or made visible as a collection. Collections of items can be made requestable or not unrequestable as a collection. For example, ABC books are visible to staff but not to patrons, and cannot be requested by either patrons or staff.		
Related Reqs: 5278 5190		Related Process

Category: Outreach: Searching and Selecting Items

Req ID: 5809	Source: OUT	Priority: 2
Name: outreach patron item search		
Description: When viewing the results of an item search, ability to toggle highlighting for items that have not been previously checked-out or refused by a specific patron. (Assumes patron has enabled check-out history.)		
Related Reqs: 5810		Related Process

Req ID: 5813	Source: OUT	Priority: 1
Name: original publication date sort		
Description: Ability to sort search results by original publication date.		
Related Reqs:		Related Process

Req ID: 2394	Source: OUT	Priority: 1
Name: forthcoming new book alert		
Description: When placing a hold for an Outreach patron on a specific author, system displays staff alert if books by the same author are on order and facilitates placement of holds on those books.		
Related Reqs:		Related Process

Req ID: 5814	Source: OUT	Priority: 2
Name: cover display		
Description: System provides option to display book covers on patron's checked-out item list and check-out history list.		
Related Reqs:		Related Process

Req ID: 5810	Source: OUT	Priority: 2
Name: rejected items		
Description: Ability to record that an outreach patron has rejected specific items in the past, and alert if staff attempts to place a hold for that patron.		
Related Reqs: 5809		Related Process

Req ID: 5812	Source: OUT	Priority: 1
Name: outreach book alerts		
Description: Ability to set up an automated query that locates new items and places in patron booklists, or places holds, or alerts staff to place holds, for specified groups of patrons.		
Related Reqs:		Related Process 5803 6001 711

Req ID: 1704	Source: CAP	Priority: 3
Name: search results: display		
Description: Ability to customize all search result display screens, including selection of fields to display and sorting/limiting options. Ability to set preferred default displays defined by individual user logons with ability to further customize and change settings as needed.		
Related Reqs: 2271 2272 227		Related Process CAT010

Req ID: 2412	Source: OUT	Priority: 2
Name: remember prior searches per patron		
Description: Ability to store prior searches for each patron group.		
Related Reqs:		Related Process 5803

Category: Outreach: Holds

Req ID: 2395	Source: OUT	Priority: 1
Name: automated check out		
Description: System can be set to automatically check out items when holds are triggered for specific patron types and/or for patrons from specific home libraries. (Primary use case is Outreach patrons.)		
Related Reqs:		Related Process

Req ID: 5233	Source: CIR	Priority: 3
Name: hold rollover days		
Description: Ability to control which days auto-transfer of holds occurs, on a per-branch basis.		
Related Reqs: 5232		Related Process HOL-070

Req ID: 5817	Source: OUT	Priority: 3
Name: hold expiration		
Description: Hold expiration period can be configured separately for Outreach patrons.		
Related Reqs:		Related Process

Req ID: 5804	Source: OUT	Priority: 3
Name: group holds		
Description: Ability to place holds for a group of patrons on a group of one or more bibliographic records. For example, select a group of historical novels and place holds for all members of the group "Historical Fiction Fans".		
Related Reqs: 5803		Related Process

Req ID: 5189	Source: CIR	Priority: 3
Name: holds, multiple per item		
Description: Allow specified patron types to place multiple holds on a single title. (At a minimum, these types will include branch cards.) Also see REQ-5190, rules of requesting.		
Related Reqs: 5190 5386 730		Related Process

Req ID: 7301	Source: OUT	Priority: 2
Name: multiple holds on multiple formats		
Description: Ability for specified patron types to easily place multiple holds on items from related bibliographic records (e.g. multiple formats of the same title). For example, a bookclub leader could search for a title, select several formats from the results, and specify the number of items to hold for each format.		
Related Reqs: 5189 5386		Related Process

Category: Outreach: Check-in and Check-out

Req ID: 5815	Source: OUT	Priority: 3
Name: custom due date		
Description: Ability to set a custom due date; all items are subsequently checked out with the custom due date, until it is changed or reset.		
Related Reqs:		Related Process

Req ID: 5808	Source: OUT	Priority: 3
Name: override due date		
Description: Ability for staff (with sufficient privileges) to override renewal rules and renew items for outreach patrons even if there are unfilled holds on the items.		
Related Reqs: 5191		Related Process

Req ID: 5191	Source: CIR	Priority: 3
Name: due date extension		
Description: Allow staff to renew or extend due date on selected items. If this is prohibited by loan/renewal rules (e.g., there are holds on the item, or patron has reached renewal limits, or the patron record has a block), require approval at specified permissions level. Renewal or due date extension is tallied as a renewal.		
Related Reqs: 5808 5815		Related Process

Req ID: 5400	Source: OUT	Priority: 1
Name: checking out same item		
Description: During check-out process, provide an indicator of whether the same patron has checked out the same item before. Ability to enable this indicator by patron type and check-out location. (This feature is required by Library Outreach staff and is not generally required elsewhere. To be effective, it requires patrons to opt-in to retaining check-out history.)		
Related Reqs:		Related Process

3. Use Cases

3.1 Use Case List

We have written use cases for selected, frequently-performed activities. These are included to supplement the requirements, and to highlight places where good software could bring great improvements in efficiency and ease of use. The steps of the use cases should be considered suggestive rather than prescriptive.

Primary Actor	Use Cases
Outreach Librarian	Place Group Holds

3.2 Place Group Holds

Use Case ID:	3.2		
Use Case Name:	Place Group Holds		
Created By:	Lucien Kress	Last Updated By:	Lucien Kress
Date Created:	11/15/08	Date Last Updated:	11/15/08

Actors:	Outreach Librarian (OL)	
Description:	Outreach Librarian places holds for a group of patrons on a group of items.	
Trigger:	Routine, periodic activity.	
Preconditions:	OL is logged into Outreach Module with correct credentials.	
Postconditions:	Holds have been placed.	
	Stimulus	Response
Normal Flow:		R1: OL selects “patron groups” tab.
	S2: System displays list of patron groups.	R2: OL reviews patron groups, and selects the “Mystery Lovers” group.
	S3: System displays group information.	R3: OL selects a saved search for that patron group, “recent mysteries”.
	S4: System displays recent mysteries.	R4: OL clicks checkboxes to select several mysteries. OL clicks “Place holds” button.
	S5: System displays a confirmation prompt.	R5: OL clicks “OK” to confirm.
	S6: System places holds on selected items for each patron in the group.	
Alternative Flows and Exceptions:	<ol style="list-style-type: none"> While displaying list of patron groups, OL has option of editing a patron group. OL can add patrons by barcode or by searching on a patron record field (e.g. route stop, patron type) and selecting all or specific patrons from the search results. While viewing the patron group, OL can select a saved search; initiate a new search and save it to the patron group; or initiate a new search without saving it. OL can initiate a search without first selecting a patron group. OL can select results from the search, click to place hold, and enter either a patron barcode (for a single hold) or select a group (for a group of holds). If a particular patron has already checked out an item, and has enabled check-out history, that patron will not be included in the hold requests. 	
Includes:		
Priority:	3 (High)	
Frequency of	Hundreds of times per month.	

Use:	
Business Rules:	
Assumptions:	
Notes and Issues:	

Software Requirements Specification

for the

Interlibrary Loan Module

of an

Integrated Library System

Version 2.0 draft

Prepared by Lori Ayre and Lucien Kress
Galecia Group
December 1, 2008

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Revision History

Name	Date	Reason For Changes	Version
Lucien Kress	10/09/08	Initial Draft	1.0 draft
Lucien Kress	12/1/08	Revisions, Requirements workshop	2.0 draft

1. Introduction

1.1 Purpose and Perspective

This Software Requirements Specification (SRS) describes the functional and nonfunctional requirements for the Interlibrary Loan Module of an Integrated Library System (ILS). The requirements were developed specifically for King County Library System, but are believed to be suitable for many large, urban, multiple-branch, centralized library systems.

The requirements in this SRS presuppose the general data structures and functionality of a full-fledged ILS. The ILL Module will replace and enhance the current capabilities of commercially available ILSes, as well as add new functionality.

1.2 Product Scope and Features

The ILL Module facilitates the processing of incoming (“lending”) and outgoing (“requesting”) interlibrary loan requests. Specifically, the ILL Module supports the following activities, among others:

- Providing patrons and staff a facility for requesting materials from other library systems.
- Processing borrowing requests and verifying that the local library system does not have materials available prior to requesting from other library systems.
- Processing incoming interlibrary loan requests, verifying availability of materials, and accepting or rejecting requests.
- Posting requests to an interlibrary loan management system such as OCLC Resource Sharing.
- Creating temporary bibliographic and item records for materials received from other library systems.
- Tracking movement of requested items between branches, to patrons, and back to the lending library system.
- Querying and analyzing interlibrary loan transaction records to support decision-making about participation in interlibrary loan agreements and relationships.

The current specification presupposes the general functionality of an ILS and specifies only those requirements that directly or indirectly relate to ILL activities. King County Library has previously published specifications for Acquisitions and Serials Management, Circulation, and Cataloging modules. Requirements for OPAC, web services, and management reporting are currently under development.

Moreover, the current specification is focused on functional characteristics of an ILL Module. Data structures and user interfaces will require further specification and development using an iterative, prototype-oriented software development methodology.

1.3 Intended Audience

This SRS is intended both for library managers and staff who may contribute additional requirements or commentary, and for software project managers and developers who will implement the requirements. As such, it aims for a high level of readability for a non-technical audience, while providing enough specificity to be useful to a software developer.

It is assumed that when software development occurs, it will be in a highly collaborative and iterative environment in which end-users have multiple opportunities to review prototypes and refine the user interface and software functionality.

It is also assumed that the reader has a general understanding of Library services and processes and does not require definition of common Library terminology.

1.4 Document Conventions

The SRS includes requirements, process flowcharts, and use cases. Requirements include a reference to a process flowchart where appropriate. Flowcharts generally indicate the current approach to ILL processes at King County Library System, and should be considered to give contextual information rather than to prescribe or constrain new software development.

Use cases are included for some of the most frequently performed activities. They are intended to supplement the requirements and highlight activities that offer a great potential for increased efficiency and ease of use. Again, they should be considered to be contextual rather than prescriptive.

1.5 User Classes and Characteristics

Patron	A Patron is a customer of King County Library System, either possessing a library card or not, either on site of a community library or not, using either print materials, media materials, or electronic resources.
ILL Staff	ILL staff include managers, librarians, library technicians, library assistants, and library pages who are involved with processing ILL requests, searching for materials, directing movement of materials between branches, processing materials for shipment, tracking interlibrary loans, and developing statistics and analysis of ILL transactions.
ILL Managers	ILL Managers include management staff who oversee the ILL processes.
ILL Libraries	ILL Libraries include libraries who lend materials to, and receive materials from KCLS through the ILL process.
Library Managers	Library Managers include Cluster and Site Managers who provide input to the ILL processes.
Library Directors	Library Directors include members of the Library Executive Team who plan and direct Library services and priorities.

1.6 Operating Environment

- OE-1: The ILL Module supports the needs of a large, multiple-branch library system. Specifically, the system must support a library system with 50 locations, 20 million circulations, purchasing and processing over 500,000 items per year. The ILL Department processes over 5000 requests for new materials per month, approximately 2000 of which turn into ILL requests. The ILL Department also

processes approximately 3000 ILL requests from other libraries, 1000 of which result in loans. It is highly desirable that searches and reports can be processed during open hours without disrupting other system functions.

- OE-2: The ILL Module shall operate on a Linux or Solaris server.
- OE-3: The ILL Module shall be accessible through a web-browser or a Windows-compatible client.
- OE-4: If web-browser based, the ILL Module shall be accessible through Microsoft Internet Explorer (v.6.0 and later) and Mozilla Firefox (v.2.0 and later).
- OE-5: The ILL Module shall be accessible with screen-reading software, screen-magnification software, and other software programs designed to increase accessibility.

1.7 Design and Implementation Constraints

- CO-1: The ILL Module shall use a fully relational database back-end.
- CO-2: The ILL Module shall produce standards-compliant HTML.
- CO-3: The ILL Module shall provide a development and training environment with the ability to migrate configurations to a production environment.
- CO-4: User rights and privileges will be controlled through security groups and/or “roles” that allow access control for individuals, workgroups, and arbitrary staff groups.
- CO-5: These requirements shall not constrain functionality or features of the Online Public Access Catalog (OPAC) module.

1.8 User Documentation

- UD-1: The software developer shall provide complete data specifications for authority records, bibliographic records, order records, item records, hold/request records, and other records maintained or accessed by the ILL Module.
- UD-2: The software developer shall provide a thorough high-level description of major processes, including bibliographic record import and export, validation of bibliographic records against internal and external authority sources, and standard reports.
- UD-3: The system shall provide an online, hierarchical, and cross-linked help system in HTML that describes and illustrates all system functions.

1.9 Assumptions and Dependencies

- AS-1: The ILL Module is part of an enterprise-level Library Automation System.
- AS-2: ILL processes are consolidated at a central location, and accept input and provide services to multiple locations.
- DE-1: The ILL Module relies on the data structures and functionality of an enterprise-level Library Automation System, including Acquisitions and Cataloging modules.
- DE-2: The ILL Module interfaces with a variety of vendor websites, via published APIs and/or automated transfer of standard-format data files (e.g. USMARC21, EDIFACT).
- DE-3: The ILL module interacts with a patron interface, also known as an Online Public Access Catalog (OPAC), accepting input in the form of materials requests and providing output in the form of temporary bibliographic and item records and hold requests.

System Requirements

Category: ILL: General

Req ID: 5705 **Source:** ILL **Priority:** 3

Name: patron ILL requests via OPAC

Description: Patron requests are collected through OPAC (or, less preferably, through a separate webform); patron information is authenticated against ILS; if blocks or limits exist, patron is notified; requested items are checked for existence in the collection; patron is notified of existence of items; unowned items directly populate a selection list (see REQ-3004) in the ILS so that retyping is unnecessary. ILL staff use the selection list to process ILL requests.

Related Reqs: 3101 5706 **Related Process**

Req ID: 5711 **Source:** ILL **Priority:** 2

Name: serials ILL requests

Description: ILL requests for serials articles are handled through the OPAC request process, as in REQ-5705. The process includes a search of locally available physical and electronic resources. If the request cannot be filled locally, it is processed through the ILL system. When the Library receives an ILL serials photocopy from the lending library, the ILL item record contains periodical name, date, article title, and page numbers.

Related Reqs: **Related Process**

Req ID: 5713 **Source:** ILL **Priority:** 3

Name: manual ILL requests

Description: System allows manual entry of ILL requests (for example, when patrons submit requests on paper) in a way that takes advantage of the automation described in REQ-5705, while allowing simple and efficient data entry.

Related Reqs: **Related Process**

Req ID: 5717	Source: ILL	Priority: 2
Name: ILL lending request preprocessing		
Description: System provides a utility to import outstanding ILL requests, search by author and title, and output availability and status of each item. To the extent that the external ILL system allows, staff can accept or refuse a request within the ILS interface with a single click.		
Related Reqs:		Related Process

Req ID: 2344	Source: ILL	Priority: 2
Name: ILL request status		
Description: Request status is updated at each stage of lending and receiving process, to the extent that status information is available from the external ILL system. Ideally, status updates include: request created, request received by lending library, request accepted or rejected by lending library, requested item shipped by lending library (including shipment method), requested item received at borrowing library, requested item sent to pickup location, requested item available on hold shelf, requested item returned by borrower, requested item in transit to shipping location, requested item shipped to lending library (including shipment method), and requested item received by lending library.		
Related Reqs: 5706		Related Process

Req ID: 2335	Source: ILL	Priority: 3
Name: ILL fees and restrictions		
Description: System allows ILL fines and charges to be tracked separately from other charges. Some restrictions may be applied according to ILL account balance, independently of other outstanding fees. In addition, presence of a fee for a specific item can prevent that item from being checked out until the fee is paid.		
Related Reqs: 2333		Related Process

Req ID: 2333	Source: ILL	Priority: 3
Name: ILL request limits		
Description: Ability to set interlibrary loan limits for patrons, both globally and individually. For example, limit the total number of outstanding ILL requests; limit ability to place new ILL requests before current ILL items are returned; limit ability to place new ILL requests based on standard patron blocks, account balance, etc.		
Related Reqs:		Related Process

Req ID: 5716	Source: ILL	Priority: 3
Name: ILL request search		
Description: System allows searching ILL requests by patron, title, author, lending library, and OCLC request number.		
Related Reqs:		Related Process

Category: ILL: Integration

Req ID: 2338	Source: ILL	Priority: 3
Name: integrated ILL module		
Description: ILL module is completely integrated with the rest of the system and with external interlibrary loan systems (OCLC, Sirsi Dynix URSA, Innovative InnReach, Relais ILL, Auto-Graphics AGent Resource Sharing, etc.). To the extent that the external system supports it, the ILL module is able to use borrower records and item records from the external system, to avoid the necessity of manually creating temporary records. Imported records can easily be distinguished from non-ILL records, and can be included or excluded in queries and reports.		
Related Reqs:		Related Process

Req ID: 5700	Source: ILL	Priority: 3
Name: compatibility with external interlibrary loan systems		
Description: Ability to import, export, and track interlibrary loan patrons and requests with external interlibrary loan systems.		
Related Reqs:		Related Process

Category: ILL: Requesting

Req ID: 2345 **Source:** ILL **Priority:** 1

Name: ILL due date and renewal rules

Description: System retrieves owning library's due date and renewal rules from external interlibrary loan system.

Related Reqs: **Related Process**

Req ID: 5712 **Source:** ILL **Priority:** 3

Name: "use in library" items

Description: When the Library requests and receives an ILL item that is reserved for use inside the Library, the item record is marked with a "use in library" flag. The item can only be checked out to the patron's home library. The item record has an easily-identifiable visual indicator (such as a colored background).

Related Reqs: **Related Process**

Category: ILL: Patron Notifications

Req ID: 5706 **Source:** ILL **Priority:** 3

Name: patron ILL request notifications

Description: Patrons can receive automatic or manual notifications according to preference at each stage of ILL request processing. Notification preferences can include status changes to be notified about (see REQ-3102) and notification method (email, text message, etc.). In addition, status changes are recorded in the patron account. (Library chooses which status changes are visible to patrons.) Patrons can track ILL request status and progress through their account.

Related Reqs: 2344 3102 **Related Process**

Req ID: 2336 **Source:** ILL **Priority:** 3

Name: ILL notices

Description: ILL overdue and charge notifications are handled as part of the larger notification system.

Related Reqs: **Related Process**

Req ID: 2506 **Source:** ILL **Priority:** 2

Name: ILL patron special notifications

Description: Ability to click to notify patron of special circumstances in ILL requests, e.g. if there is a charge for an ILL request, or if item unexpectedly becomes unavailable, etc. Notification method and template is customizable per system. Notification method uses patron preferences (email, phone, text message, etc.)

Related Reqs: 5706 **Related Process**

Req ID: 2511 **Source:** ILL **Priority:** 3

Name: ILL patron account messages

Description: Ability to place a non-blocking ILL message in the patron account, e.g. requested ILL item has a fee, or requested ILL item is unavailable.

Related Reqs: 5706 **Related Process**

Category: ILL: Records

Req ID: 5702 **Source:** ILL **Priority:** 3

Name: ILL patron records

Description: Ability to identify patron records created for remote libraries that borrow through ILL, for example through a unique patron type. ILL patrons have different rules of requesting and loan rules than other patrons. (See REQ-5057 and REQ-5190 for specification of rules.)

Related Reqs: 5057 5190 **Related Process**

Req ID: 5701 **Source:** ILL **Priority:** 3

Name: ILL item records

Description: Ability to flag a bibliographic record as an ILL record. When staff view an ILL-flagged bibliographic record, or an item record attached to an ILL-flagged bibliographic record, or an ILL item record in a patron's checked-out items list, there should be an easily visible indicator (e.g. customizable background color, etc.) that the record is for a borrowed ILL item. The item record includes a link to the interlibrary loan system request record. ILL items will always be suppressed in patron interfaces.

Related Reqs: **Related Process**

Req ID: 5715 **Source:** ILL **Priority:** 3

Name: ILL request history

Description: ILL requests are written to the patron's check-out history, if the patron has opted in.

Related Reqs: 5046 **Related Process**

Category: ILL: Miscellaneous

Req ID: 5703 **Source:** ILL **Priority:** 3

Name: ILL patron address export

Description: Ability to export ILL patron address from the patron record in any of several data formats: XML, comma-separated text, tab-delimited text, format specified by an external postage system, or format specified by label printing software. Ability to specify additional formats as required. Ability to specify a default format and to pick other formats from a drop-down menu.

Related Reqs:

Related Process

Req ID: 5714 **Source:** ILL **Priority:** 2

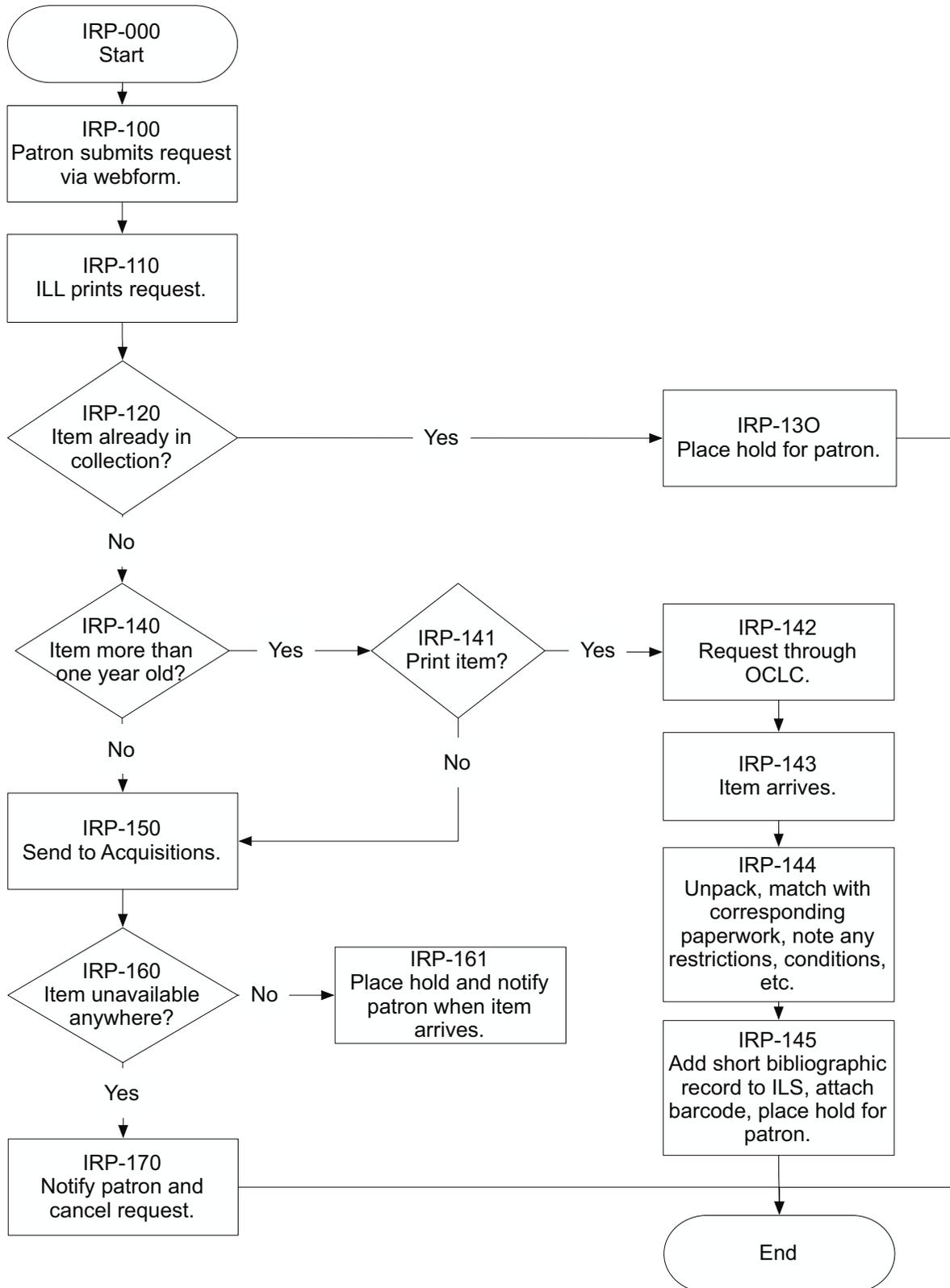
Name: ILL transaction labels

Description: System provides a utility to generate an information label from an ILL request or item record.

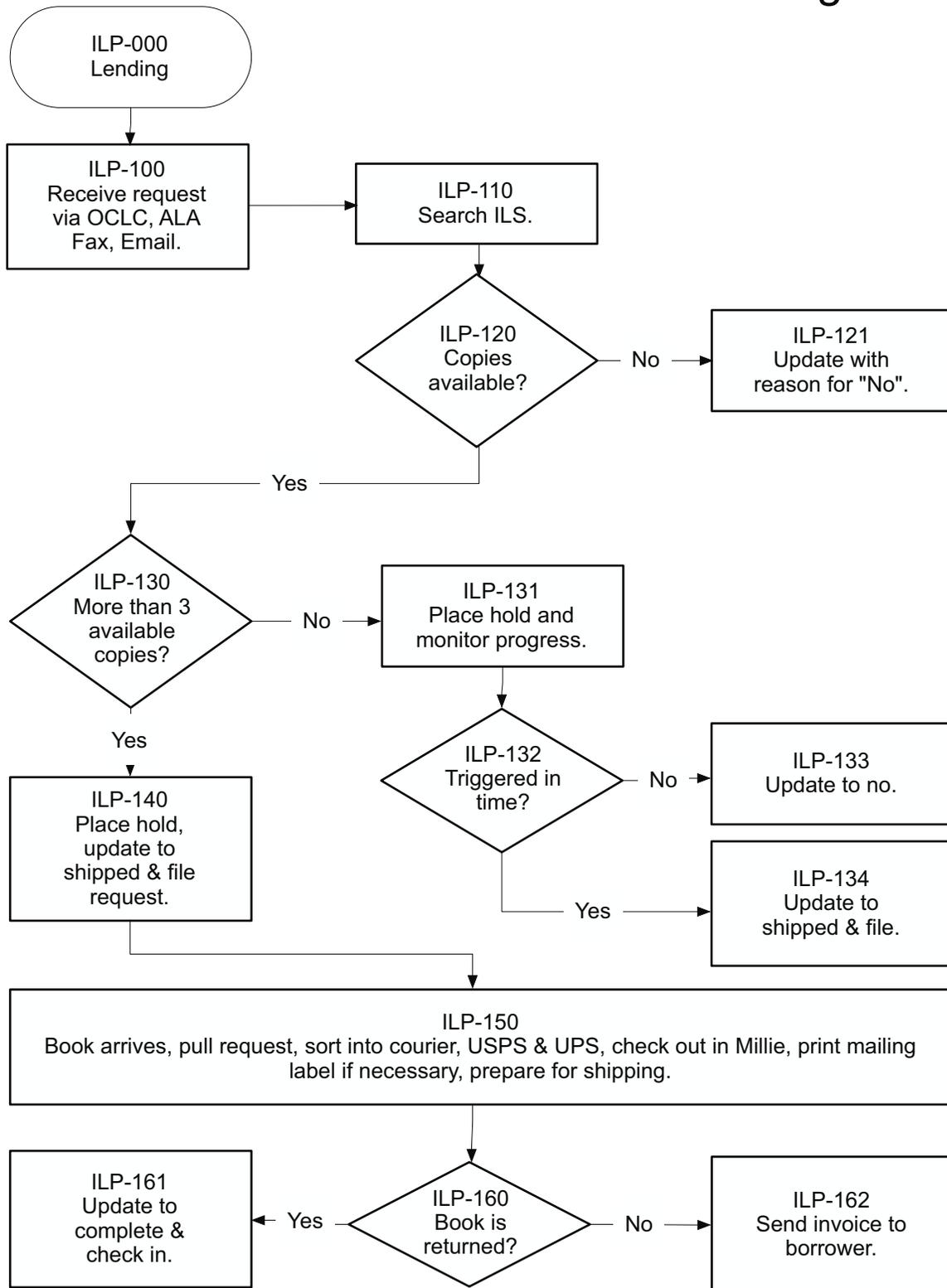
Related Reqs:

Related Process

ILL Receiving Process



ILL Lending Process



4. Use Cases

4.1 Use Case List

We have written use cases for selected, frequently-performed activities. These are included to supplement the requirements, and to highlight places where good software could bring great improvements in efficiency and ease of use. The steps of the use cases should be considered suggestive rather than prescriptive.

<i>Primary Actor</i>	<i>Use Cases</i>
ILL Technician	Process Local Materials Requests
ILL Technician	Process External Materials Requests
ILL Technician	Create Temporary Bibliographic/Item Record

4.2 Process Local Materials Requests

Use Case ID:	USE-001		
Use Case Name:	Process Local Materials Requests		
Created By:	Lucien Kress	Last Updated By:	Lucien Kress
Date Created:	11/15/08	Date Last Updated:	11/15/08

Actors:	ILL Technician (Tech)	
Description:	Tech processes local materials requests for delegation to Acquisitions or Interlibrary Loan vendor.	
Trigger:	Routine process.	
Preconditions:	Tech is logged into library system and ILL system with appropriate privileges.	
Postconditions:	Requests have been delegated as appropriate.	
	Stimulus	Response
Normal Flow:		R1: Tech selects incoming requests list and clicks "Process" button.
	S2: System processes incoming requests and marks status for each request.	R2: Tech reviews items with "invalid patron" or "blocked patron" status and chooses to notify patrons with email addresses of request failure, and chooses to delete other "invalid patron" requests.
	S3: System redisplay list without "invalid patron" and "blocked patron" items.	R3: Tech reviews items with "unidentifiable item" status. Tech performs searches to identify items and add necessary fields, and clicks "Process" button.
	S4: System redisplay list without "unidentifiable item" items.	R4: Tech reviews items with "available locally" status and chooses to notify patrons with email addresses of availability, including a "click to place hold" link. Tech chooses to place holds automatically for patrons without email addresses.
	S5: System redisplay list without "available locally" items.	R5: Tech reviews items with "prefer to order" status (i.e. recently published items, media items, etc.) and chooses to route to an Acquisitions selection list.
	S6: System redisplay list without "prefer to order" items.	R6: Tech reviews remaining items and clicks to transfer to ILL.
	R7: System places requests or prepares output file to upload to ILL system.	R7: Tech deletes remaining unidentifiable items.
Alternative		

Flows and Exceptions:	
Includes:	
Priority:	3 (High)
Frequency of Use:	Thousands of times per month
Business Rules:	
Assumptions:	
Notes and Issues:	

4.3 Process External Materials Requests

Use Case ID:	USE-002		
Use Case Name:	Process External Materials Requests		
Created By:	Lucien Kress	Last Updated By:	Lucien Kress
Date Created:	11/15/08	Date Last Updated:	11/15/08

Actors:	ILL Technician (Tech)	
Description:	Tech processes external materials request from ILL system.	
Trigger:	Routine process.	
Preconditions:	Tech is logged into library system and ILL system with appropriate privileges.	
Postconditions:	Requests have been accepted or rejected as appropriate.	
	Stimulus	Response
Normal Flow:		R1: Tech imports outstanding requests from ILL system and clicks "Process".
	S2: System displays requests, status, item availability, and approximate time to arrive.	R2: Tech selects items that are not owned by Library and clicks "Reject".
	S3: System sends rejection statuses, deletes rejected requests, and redisplay remaining requests.	R3: Tech selects new and pending items that won't be available within 20 days and clicks "Reject".
	S4: System sends rejection statuses, deletes rejected requests, and redisplay remaining requests.	R4: Tech selects items that may be available within 20 days and clicks "Tentative".
	S5: System places holds, marks items as "pending", and redisplay remaining requests.	R5: Tech selects items that are in "pending" status and currently in transit, and clicks "Accept".
	S6: System sends acceptance statuses, marks items as "accepted", and redisplay remaining requests.	R6: Tech reviews remaining items, sends acceptance or rejection status manually where appropriate, and leaves most items unchanged.
Alternative Flows and Exceptions:		
Includes:		
Priority:	3 (High)	
Frequency of Use:	Thousands of times per month	
Business Rules:		
Assumptions:		
Notes and		

Issues:	
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Software Requirements Specification

for the

Management Processes

of an

Integrated Library System

Version 3.0 final

Prepared by Lori Ayre and Lucien Kress
Galecia Group
January 27, 2009

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Revision History

Name	Date	Reason For Changes	Version
Lucien Kress	9/26/08	Initial Draft	1.0 draft
Lucien Kress	12/1/08	Revisions, Requirements workshop	2.0 draft
Lucien Kress	1/27/09	Revisions, final	3.0 final

1. Introduction

1.1 Purpose and Perspective

This Software Requirements Specification (SRS) describes the functional and nonfunctional requirements for the Management Processes of an Integrated Library System (ILS). The requirements were developed specifically for King County Library System, but are believed to be suitable for many large, urban, multiple-branch, centralized library systems.

The requirements in this SRS presuppose the general data structures and functionality of a full-fledged ILS. The Management Processes will replace and enhance the current capabilities of commercially available ILSes, as well as add new functionality.

1.2 Product Scope and Features

The Management Processes facilitates the management of Library services, programs, and policies. Specifically, the Management Processes support the following activities, among others:

- Analyzing the Library collection and its use by patrons.
- Analyzing branch capacity and optimal distribution of the collection.
- Analyzing the demographics and interests of the Library's patrons.
- Analyzing staff productivity and workflow.
- Tracking and verifying financial transactions.

The current specification presupposes the general functionality of an ILS and specifies only those requirements that directly or indirectly relate to management activities. King County Library has previously published specifications for Acquisitions and Serials Management, Circulation, and Cataloging modules. Requirements for OPAC and web services are currently under development.

Moreover, the current specification is focused on functional characteristics of Management Processes. Data structures and user interfaces will require further specification and development using an iterative, prototype-oriented software development methodology.

1.3 Intended Audience

This SRS is intended both for library managers and staff who may contribute additional requirements or commentary, and for software project managers and developers who will implement the requirements. As such, it aims for a high level of readability for a non-technical audience, while providing enough specificity to be useful to a software developer.

It is assumed that when software development occurs, it will be in a highly collaborative and iterative environment in which end-users have multiple opportunities to review prototypes and refine the user interface and software functionality.

It is also assumed that the reader has a general understanding of Library services and processes and does not require definition of common Library terminology.

1.4 Document Conventions

The SRS includes requirements. Requirements include a reference to a process flowchart where appropriate. Flowcharts generally indicate the current approach to Management Processes at King County Library System, and should be considered to give contextual information rather than to prescribe or constrain new software development.

1.5 User Classes and Characteristics

Patron	A Patron is a customer of King County Library System, either possessing a library card or not, either on site of a community library or not, using either print materials, media materials, or electronic resources.
Staff	Staff include managers, librarians, library technicians, library assistants, and library pages who are involved in designing and providing services for the Library.
Managers	Managers include management staff who oversee Library processes.
Library Managers	Library Managers include Cluster and Site Managers who provide input to the design and implementation of Library services.
Library Directors	Library Directors include members of the Library Executive Team who plan and direct Library services and priorities.

1.6 Operating Environment

- OE-1: Management Processes support the needs of a large, multiple-branch library system. Specifically, the system must support a library system with 50 locations, 20 million circulations, purchasing and processing over 500,000 items per year. It is highly desirable that searches and reports can be processed during open hours without disrupting other system functions.
- OE-2: Management Processes shall operate on a Linux or Solaris server.
- OE-3: Management Processes shall be accessible through a web-browser or a Windows-compatible client.
- OE-4: If web-browser based, Management Processes shall be accessible through Microsoft Internet Explorer (v.6.0 and later) and Mozilla Firefox (v.2.0 and later).
- OE-5: Management Processes shall be accessible with screen-reading software, screen-magnification software, and other software programs designed to increase accessibility.

1.7 Design and Implementation Constraints

- CO-1: Management Processes shall use a fully relational database back-end.
- CO-2: Management Processes shall produce standards-compliant HTML.
- CO-3: Management Processes shall provide a development and training environment with the ability to migrate configurations to a production environment.
- CO-4: User rights and privileges will be controlled through security groups and/or “roles” that allow access control for individuals, workgroups, and arbitrary staff groups.

- CO-5: These requirements shall not constrain functionality or features of the Online Public Access Catalog (OPAC) module.

1.8 User Documentation

- UD-1: The software developer shall provide complete data specifications for authority records, bibliographic records, order records, item records, hold/request records, and other records maintained or accessed by Management Processes.
- UD-2: The software developer shall provide a thorough high-level description of major processes, including bibliographic record import and export, validation of bibliographic records against internal and external authority sources, and standard reports.
- UD-3: The system shall provide an online, hierarchical, and cross-linked help system in HTML that describes and illustrates all system functions.

1.9 Assumptions and Dependencies

- AS-1: Management Processes are part of an enterprise-level Library Automation System.
- AS-2: Management Processes are consolidated at a central location, and accept input and provide services to multiple locations.
- DE-1: Management Processes rely on the data structures and functionality of an enterprise-level Library Automation System, including Acquisitions and Cataloging modules.
- DE-2: Management Processes interface with a variety of vendor websites, via published APIs and/or automated transfer of standard-format data files (e.g. USMARC21, EDIFACT).
- DE-3: Management Processes interact with a patron interface, also known as an Online Public Access Catalog (OPAC).

System Requirements

Category: Management Tools: General

Req ID: 5616	Source: MGT	Priority: 3
Name: streamlined staff login		
Description: The system supports (but does not require) streamlined staff login methods, for example staff member swipes a card to log into a terminal.		
Related Reqs:		Related Process
Req ID: 5607	Source: MGT	Priority: 3
Name: report templates		
Description: System administrators can create report templates that are available to front-line staff, and can be run as is or modified to the staff person's particular needs.		
Related Reqs:		Related Process
Req ID: 5617	Source: MGT	Priority: 3
Name: reports permissions		
Description: System provides fine-grained permissions to allow or disallow staff to run specific reports, and/or to run ad hoc reports on specific sets of data.		
Related Reqs:		Related Process
Req ID: 5624	Source: MGT	Priority: 3
Name: query tool		
Description: System provides a user-friendly interface for designing queries against all record types. Staff can select fields to query; select values from picklist of possible values; select regular expressions from drop-down menu, and use a full range of Boolean operators. Administrators control staff access to tables and fields.		
Related Reqs:		Related Process

Req ID: 5618	Source: MGT	Priority: 3
Name: board reports		
Description: The system provides canned reports for consumption by Library Board or other external consumers. Generally, reports display statistics on check-outs, check-ins, number of holds placed, number of holds filled. Statistics should be cross-tabulated per terminal, per branch, per cluster of branches, per hour, per patron age range, per patron type, and per patron location.		
Related Reqs:		Related Process

Req ID: 5609	Source: MGT	Priority: 3
Name: transaction data archive		
Description: Transactions are archived in a form that protects patron privacy, while providing useful demographic statistics.		
Related Reqs:		Related Process

Req ID: 5631	Source: MGT	Priority: 3
Name: periodic reports, examples		
Description: Examples of periodic reports: bibliographic records with holds; items that have not been checked out in X days; item-level holds; items with invalid item type; in-transit items with outstanding hold; items that have been in-transit for more than X days; items that are the last copy in the system; items with a long call number; missing items; bibliographic records with no item records; patrons with invalid home library.		
Related Reqs:		Related Process

Category: Management Tools: Demographics

Req ID: 5606 **Source:** MGT **Priority:** 3

Name: behavior and use analysis

Description: The system produces statistics that can be used to understand and predict patron behavior and use of materials. For example, how quickly is a particular book returned, on average? How likely is a particular book to be renewed? What percent of check-outs at a particular branch are renewals?

Related Reqs: 5609

Related Process

Req ID: 5605 **Source:** MGT **Priority:** 3

Name: demographic statistics

Description: The system produces useful demographic statistics, including transactions by geographical regions, age ranges, ethnicity, etc. The data used to produce these statistics must be anonymized, i.e. information that could be used to identify a patron is deleted.

Related Reqs: 5609

Related Process

Req ID: 5613 **Source:** MGT **Priority:** 3

Name: collection use outcomes

Description: The system provides tools for capturing outcomes of collection use. For example, the system provides feedback mechanisms to ask follow-up questions (Did you read this item? Did you like it? Was it useful?).

Related Reqs:

Related Process

Category: Management Tools: Inventory Control

Req ID: 5634 **Source:** MGT **Priority:** 3

Name: material volume report

Description: Ability to report on the volume of material in a given library at any point in time, based on new acquisitions, items on the shelf, and items out in circulation, with the ability to break down volume in categories (e.g. total items in library, number of holds, number of adult fiction, number of board books, etc).

Related Reqs: 5635

Related Process

Req ID: 5635 **Source:** MGT **Priority:** 3

Name: system capacity dashboard

Description: The system provides a dashboard showing capacity of all branches (as defined in REQ-5634).

Related Reqs: 5634

Related Process

Req ID: 5638 **Source:** MGT **Priority:** 3

Name: shelf space report

Description: For each genre and format of material, ability to compare the percentage of total circulations, the percentage of the collection, and the percentage of total shelf space that genre/format comprises. Ability to report per library and per system.

Related Reqs:

Related Process

Req ID: 5602 **Source:** MGT **Priority:** 3

Name: floating materials load balancing

Description: Ability to maintain appropriate load of floating material at each branch, depending on branch capacity, age of materials, etc.

Related Reqs:

Related Process

Req ID: 5601	Source: MGT	Priority: 3
Name: uncataloged material		
Description: Ability to control inventory of uncataloged material, such as paperback books and children's board books. Support for quick distribution; minimal branch labor; and ability to identify how the material is being used. Ability to count transactions and include in circulation statistics and reports.		
Related Reqs:		Related Process

Req ID: 5603	Source: MGT	Priority: 3
Name: just-in-time collection		
Description: Ability to maintain a central "just in time" collection, in which holds are serviced from a warehouse. For example, popular titles with a short lifespan, and books that are often assigned at schools.		
Related Reqs: 5818		Related Process

Req ID: 5818	Source: OUT	Priority: 3
Name: item transfer utility		
Description: System provides a utility for transferring batches of items between branches, used for example to move books into a mobile library, an outreach program collection, or a "just-in-time" warehouse. Utility includes ability to query for candidate materials; ability to save queries for repeated use; ability to manually select titles from query results; and ability to change records of all or selected items to move to new location. Mechanisms for moving items include changing location field, generating pull lists, etc. In addition, utility provides means to revert items to original location after a set period of time, and/or based on other criteria.		
Related Reqs: 5603		Related Process

Req ID: 5636	Source: MGT	Priority: 3
Name: track recently returned materials		
Description: Ability to issue a real-time query of recently-returned, currently-available material.		
Related Reqs:		Related Process

Req ID: 5626	Source: MGT	Priority: 3
Name: missing and damaged items report		
Description: The system provides reports of missing and damaged items per branch.		
Related Reqs:		Related Process

Req ID: 5627	Source: MGT	Priority: 3
Name: in-transit items report		
Description: The system generates a list of items that have been in-transit for more than X days (X configurable), per branch, per cluster, and per system.		
Related Reqs:		Related Process

Req ID: 5630	Source: MGT	Priority: 3
Name: item record purging		
Description: The system provides a utility for identifying item records to purge, based on customizable criteria such as: an item has been in status "missing" for more than X days; an item has status "weeded"; etc. Matching items can be reviewed and removed from the set prior to deleting. Delete items can be undeleted for a customizable period of time.		
Related Reqs:		Related Process

Req ID: 5610	Source: MGT	Priority: 3
Name: deletions		
Description: Ability to count and track record deletions (e.g. item records, patron records) per location and per system.		
Related Reqs:		Related Process

Category: Management Tools: Patron Records

Req ID: 5619 **Source:** MGT **Priority:** 3**Name:** patron characteristics**Description:** Queries and reports can be limited or grouped by various patron characteristics, including: age range, neighborhood, county of residence, home branch, patron type, and preferred language.**Related Reqs:****Related Process**

Req ID: 5620 **Source:** MGT **Priority:** 3**Name:** GIS interface**Description:** Patron records can store GIS data, and/or interface with external GIS resources.**Related Reqs:****Related Process**

Req ID: 5629 **Source:** MGT **Priority:** 3**Name:** inactive patrons report**Description:** The system generates a list of patrons with no circulation or electronic activity in the last X days (X configurable).**Related Reqs:****Related Process**

Category: Management Tools: Transaction Records

Req ID: 5604 **Source:** MGT **Priority:** 3

Name: transaction history

Description: Transaction history is maintained for X days (X is configurable); monthly and annual aggregate information is maintained indefinitely.

Related Reqs: **Related Process**

Req ID: 5614 **Source:** MGT **Priority:** 3

Name: examples of useful backroom statistics

Description: Transactions can be grouped by hour, staff person, staff hours, terminal, branch, and branch cluster. Transactions include check-ins, check-outs, fines collected, patron registrations, etc., and can be queried by all transactions or by type of transaction. Additional examples of useful statistics include: amount of time processing check-ins per branch; time between return of items and placement on shelf per branch; etc. One application is to evaluate optimal staff allocation between branches, and between tasks within branches.

Related Reqs: **Related Process**

Req ID: 5621 **Source:** MGT **Priority:** 3

Name: types of check-in

Description: The system counts all types of check-in individually and cumulatively: book-drop, backroom, self-service, staff check-in, paging list check-in, and status flip.

Related Reqs: **Related Process**

Req ID: 5622 **Source:** MGT **Priority:** 3

Name: types of check-out

Description: The system counts all types of check-out individually and cumulatively: staff check-out, self check-out, staff renewal, self check-out renewal, PAC renewal, OPAC renewal, telephone renewal. In addition, check-outs are categorized by whether they were checked out from the holdshelf or from browsing shelves.

Related Reqs: **Related Process**

Req ID: 5623	Source: MGT	Priority: 3
Name: holds and locations		
Description: The system counts all hold requests, including how the hold was placed: at a staff desk, at a public computer inside the library, or remotely.		
Related Reqs:		Related Process

Req ID: 5628	Source: MGT	Priority: 3
Name: transactions report		
Description: The system can generate a report of transactions (holds placed, holds filled, and check-outs) per patron, per branch, per cluster, per system, per county, per GIS sector, and per library jurisdiction. The system displays the number of check-outs and placed holds per patron. Holds are subtalled by type, e.g. active, frozen, and frozen-until holds.		
Related Reqs:		Related Process

Category: Management Tools: Financial Records

Req ID: 5639 **Source:** MGT **Priority:** 3

Name: standard accounting practice and auditing requirements

Description: All reports and data archiving must comply with standard accounting practice and state, county, and municipal auditing requirements.

Related Reqs: **Related Process**

Req ID: 5611 **Source:** MGT **Priority:** 3

Name: financial data (patrons)

Description: Fines, charges, waivers, and ecommerce transactions are attached to patron and item records. System tracks fines waived and payments made per library. Financial information can be updated easily. As an example, a staff user can easily query patron accounts with balances greater than X dollars.

Related Reqs: **Related Process**

Req ID: 5625 **Source:** MGT **Priority:** 3

Name: financial reports

Description: The system provides financial reports including: patron account balances by patron, home library, cluster, and system; fines and charges accrued per time period (e.g. last twelve months, YTD, last month) and per type of charge (overdue fines, damaged item charges, lost item charges, etc.); fines waived per time period and per branch; payments made per time period and per payment method (e.g. staff desk, self-check station, OPAC).

Related Reqs: **Related Process**

Req ID: 5637 **Source:** MGT **Priority:** 3

Name: financial audit trail

Description: The system maintains a ledger of patron payments, including which charges payments are applied to, to facilitate reconciliation.

Related Reqs: **Related Process**

Software Requirements Specification

for the

Web Services

of an

Integrated Library System

Version 2.0 draft

Prepared by Lori Ayre and Lucien Kress
Galecia Group
December 15, 2008

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Revision History

Name	Date	Reason For Changes	Version
Lucien Kress	11/25/08	Initial Draft	1.0 draft
Lucien Kress	12/15/08	Revisions, Requirements workshop	2.0 draft

1. Introduction

1.1 Purpose and Perspective

This Software Requirements Specification (SRS) describes the functional and nonfunctional requirements for the Web Services of an Integrated Library System (ILS), including staff and patron catalog interfaces, patron account management, and web-based or web-related programs and services. The requirements were developed specifically for King County Library System, but are believed to be suitable for many large, urban, multiple-branch, centralized library systems.

The requirements in this SRS presuppose the general data structures and functionality of a full-fledged ILS. The Web Services will replace and enhance the current capabilities of commercially available ILSes, as well as add new functionality.

1.2 Product Scope and Features

The Web Services of the ILS facilitate the management and presentation of staff and public interfaces, patron account management, and web-based or web-related programs and services. Specifically, the Web Services support the following activities, among others:

- Designing, creating, and publishing web interfaces to the catalog, for staff and patron use.
- Designing, creating, and publishing an interface for managing patron account information, preferences, content sharing, etc.
- Designing, creating, and publishing patron programs and services, such as book alerts, RSS feeds, etc.
- Providing a platform for patrons to create and share content, including book ratings, book reviews, book lists, book discussion groups, etc.
- Generating and publishing statistics and reports in support of web service management.

The current specification presupposes the general functionality of an ILS and specifies only those requirements that directly or indirectly relate to management activities. King County Library has previously published specifications for Acquisitions and Serials Management, Circulation, and Cataloging modules, among others.

Moreover, the current specification is focused on functional characteristics of Web Services. Data structures and user interfaces will require further specification and development using an iterative, prototype-oriented software development methodology.

1.3 Intended Audience

This SRS is intended both for library managers and staff who may contribute additional requirements or commentary, and for software project managers and developers who will implement the requirements. As such, it aims for a high level of readability for a non-technical audience, while providing enough specificity to be useful to a software developer.

It is assumed that when software development occurs, it will be in a highly collaborative and iterative environment in which end-users have multiple opportunities to review prototypes and refine the user interface and software functionality.

It is also assumed that the reader has a general understanding of Library services and processes and does not require definition of common Library terminology.

1.4 Document Conventions

The SRS includes requirements. Requirements include a reference to a process flowchart where appropriate. Flowcharts generally indicate the current approach to services at King County Library System, and should be considered to give contextual information rather than to prescribe or constrain new software development.

1.5 User Classes and Characteristics

Patron	A Patron is a customer of King County Library System, either possessing a library card or not, either on site of a community library or not, using print materials, media materials, or electronic resources.
Staff	Staff includes managers, librarians, library technicians, library assistants, and library pages who are involved in designing and providing services for the Library.
Web Services Staff	Web Services Staff includes web developers, web designers, programmers, and others who are involved in designing and publishing Library web pages, web applications, and web sites.
Managers	Managers include management staff who oversee Library processes.
Library Managers	Library Managers include Cluster and Site Managers who provide input to the design and implementation of Library services.
Library Directors	Library Directors include members of the Library Executive Team who plan and direct Library services and priorities.

1.6 Operating Environment

- OE-1: Web services support the needs of a large, multiple-branch library system with an advanced, complex website. Specifically, the system must support a library system with over 1.25 million patrons, 50 locations, 20 million circulations, purchasing and processing over 500,000 items per year. It is highly desirable that searches and reports can be processed during open hours without disrupting other system functions.
- OE-2: The King County Library System website receives over 2,000,000 visits per month.
- OE-3: Web Services operate on a Linux or Solaris server.
- OE-4: Web Services shall be accessible through a web-browser or a Windows-compatible client.
- OE-5: Web Services shall be accessible through Microsoft Internet Explorer (v.6.0 and later) and Mozilla Firefox (v.2.0 and later).
- OE-6: Web Services shall be accessible with screen-reading software, screen-magnification software, and other software programs designed to increase accessibility.

1.7 Design and Implementation Constraints

- CO-1: Web Services shall use a fully relational database back-end.
- CO-2: Web Services shall produce standards-compliant HTML.
- CO-3: Web Services shall provide a development and training environment with the ability to migrate configurations to a production environment.
- CO-4: User rights and privileges will be controlled through security groups and/or “roles” that allow access control for individuals, workgroups, and arbitrary staff groups.

1.8 User Documentation

- UD-1: The software developer shall provide complete data specifications for authority records, bibliographic records, order records, item records, hold/request records, and other records maintained or accessed by Web Services.
- UD-2: The software developer shall provide a thorough high-level description of major processes, including bibliographic record import and export, validation of bibliographic records against internal and external authority sources, and standard reports.
- UD-3: The system shall provide an online, hierarchical, and cross-linked help system in HTML that describes and illustrates all system functions.

1.9 Assumptions and Dependencies

- AS-1: Web Services are part of an enterprise-level Library Automation System.
- AS-2: Web Service process are consolidated at a central location, and accept input and provide services to multiple locations.
- DE-1: Web services rely on the data structures and functionality of an enterprise-level Library Automation System, including Acquisitions, Cataloging, and Circulation modules.
- DE-2: Web Services interface with a variety of vendor websites, via published APIs and/or automated transfer of standard-format data files (e.g. USMARC21, EDIFACT).
- DE-3: Web Services include and interact with a patron interface, also known as an Online Public Access Catalog (OPAC).

System Requirements

Category: Web Services: General

Req ID: 7110	Source: WEB	Priority: 3
Name: web usability		
Description: The catalog website, patron account website, and related components use standards-compliant HTML, XHTML, XML, CSS, JAVA, ASP.NET, and/or ColdFusion code which is fully within the control of the Library. Global and contextual navigation elements are fully customizable. The web architecture supports the embedding of custom code, widgets, and data extracted from external APIs. Catalog website and related components must be Section 508 compliant.		
Related Reqs: 7120		Related Process
Req ID: 7112	Source: WEB	Priority: 2
Name: catalog home page		
Description: The catalog home page is configured by the Library. The system includes modular components (e.g. widgets) that can be added to library pages, including: a search box; buttons for browsing the collection; library news and events; library event calendar; a toggle to limit searches to available items; library branch information; lists of currently popular items; lists of new items; personalized recommendations; a chat box; current holds status; current checked-out item status, and events at the patron's home library.		
Related Reqs: 7101 7109		Related Process
Req ID: 7120	Source: WEB	Priority: 2
Name: modular website		
Description: System provides modular customizations for patron web interface, allowing patron to select a base template and add modules or applications, singly or in batch. For example, a patron might select a simple search interface, add a bundle of child-related services, and add "top ten circulating DVDs" and "top ten new mysteries" widgets.		
Related Reqs:		Related Process

Req ID: 7106	Source: WEB	Priority: 1
Name: patron web templates		
Description: System supports creation of web templates for different types of patrons -- those who want a simple interface, those who want advanced features, those mainly interested in children's services, etc. -- and allows patrons to switch interfaces and customize interfaces.		
Related Reqs:		Related Process

Req ID: 7202	Source: WEB	Priority: 2
Name: web session length		
Description: Ability to set separate session lengths based on browser IP address ranges. For example, web sessions expire sooner for public computers inside the Library than for remote computers.		
Related Reqs:		Related Process

Req ID: 7012	Source: WEB	Priority: 3
Name: MARC 245 field support		
Description: System uses MARC 245 field to determine where to start title field when indexing. For example, when title field begins with an article (a, an, the, etc.), the 245 field gives the number of initial characters to omit.		
Related Reqs:		Related Process

Req ID: 7228	Source: WEB	Priority: 3
Name: electronic resources indexing		
Description: Ability to include electronic resources in indexes.		
Related Reqs:		Related Process

Category: Web Services: Administrative

Req ID: 7006 **Source:** WEB **Priority:** 3**Name:** availability status**Description:** Library can define availability status of items based on item status and other criteria. For example, items may show as available only when their status is "on shelf", or when their status is either "on shelf" or "just returned", etc. This definition is the basis of availability display (see REQ-7009) and "limit to available" searches (see REQ-7224).**Related Reqs:** 7009 7224**Related Process**

Req ID: 7220 **Source:** WEB **Priority:** 2**Name:** error message administration**Description:** Administrative staff can create and modify staff and patron error messages and specify triggers for error messages.**Related Reqs:** 5216**Related Process**

Req ID: 7111 **Source:** WEB **Priority:** 1**Name:** default patron account view**Description:** When a patron clicks the "my account" link, the default view is configured by the Library. For example, the default view may show holds that are ready to pick up and checked-out items, with other account pages accessible through navigation elements. Library may specify whether empty lists will be displayed (e.g. when there are no holds ready to pick up, Library specify whether to omit that section or display "0 holds available for pickup").**Related Reqs:****Related Process**

Req ID: 7211 **Source:** WEB **Priority:** 3**Name:** contextual help**Description:** System supports addition of custom, context-sensitive help on any page.**Related Reqs:****Related Process**

Req ID: 7109	Source: WEB	Priority: 1
Name: library events		
Description: System manages library events, and/or interfaces with external event management software. Patrons can sign up for events online, import events from the library website in standard calendar formats, receive reminders by email or text message, and evaluate or comment on events online. Events can be included in search scopes. Library defines message format, including data fields to include. Patrons may opt out of event notifications.		
Related Reqs: 7101 7116		Related Process

Req ID: 7116	Source: WEB	Priority: 1
Name: event-related resources		
Description: System can be used to record relationships between events and resources, so that patrons who register for an event can receive recommendations of related materials, and patrons who search for materials can learn about related events.		
Related Reqs: 7109		Related Process

Req ID: 7020	Source: WEB	Priority: 2
Name: top ten searches		
Description: System tracks patron and staff searches separately, and administrators can review and publish a dynamic list of the most popular search types, search terms, limits, and sorts.		
Related Reqs:		Related Process

Req ID: 7225	Source: WEB	Priority: 2
Name: trend reports		
Description: Ability to generate a report showing top ten holds, top ten circulations, etc., per library branch and per system.		
Related Reqs:		Related Process

Category: Web Services: Search and Browse

Req ID: 7003 **Source:** WEB **Priority:** 3

Name: search: scope

Description: System provides robust and fast searching capabilities. Search scopes can be defined to include any or all indexed fields, bibliographic record information, and any or all meta-data attached to the bibliographic and item record. Ranking of search results can be defined by which field(s) the keyword was found in.

Related Reqs: 1726 7014 **Related Process**

Req ID: 7013 **Source:** WEB **Priority:** 3

Name: search: general characteristics

Description: System supports wildcards (any single character, any group of characters). System supports "AND", "OR", and "NOT" keywords. System supports regular expressions, BOOLEAN, and proximity searches, but each of these can be enabled or disabled independently for staff and patron interfaces. System supports case-sensitive and case-insensitive searches. System supports limiting searches to a specified date range. System supports a method for literal interpretation of reserved characters (for example, interpret "*" as a wildcard, but interpret "\" as an asterisk). In general, all ASCII characters, including symbols, can be included in a search term.

Related Reqs: **Related Process**

Req ID: 7011 **Source:** WEB **Priority:** 2

Name: search: interface

Description: Search interfaces should be consistent for staff and patrons, with similar look-and-feel even when staff interfaces include additional options or features not available to patrons.

Related Reqs: **Related Process**

Req ID: 7016 **Source:** WEB **Priority:** 3

Name: search: engines

Description: All search pages should provide the same options and the same look and feel, even when they rely on different search engines.

Related Reqs: **Related Process**

Req ID: 7210	Source: WEB	Priority: 3
Name: default search box		
Description: Default search box does not require selecting a search type. The Library defines the default search type.		
Related Reqs:		Related Process

Req ID: 7017	Source: WEB	Priority: 3
Name: search: custom templates		
Description: Ability to create pre-defined searches and provide them to users. Users can modify and save searches, and can limit and refine searches from the initial search results screen.		
Related Reqs:		Related Process

Req ID: 7206	Source: WEB	Priority: 3
Name: search: word stemming		
Description: Ability to broaden search results by including all word stems (e.g. word tenses, singular and plural, etc.).		
Related Reqs:		Related Process

Req ID: 7221	Source: WEB	Priority: 3
Name: search: number		
Description: System supports number searches, including call number, ISBN, OCLC number, government document number, barcode number, bibliographic record number, title control number, and item record number.		
Related Reqs:		Related Process

Req ID: 2380	Source: WEB	Priority: 3
Name: search: non-roman characters		
Description: Ability to search for non-roman characters, using standard input methods.		
Related Reqs:		Related Process

Req ID: 7015 **Source:** WEB **Priority:** 2

Name: search: shortcuts

Description: System provides a variety of search shortcuts (e.g. "T:abc" to search Title field for "abc") which can be used from any search field. Expert users can perform advanced searches in a simple search field, without going to an advanced search screen.

Related Reqs: **Related Process**

Req ID: 7201 **Source:** WEB **Priority:** 3

Name: search: add more rows

Description: Advanced search provides the ability to add additional criteria rows.

Related Reqs: **Related Process**

Req ID: 7022 **Source:** WEB **Priority:** 3

Name: search: spell check

Description: System suggests alternate spellings for search terms, based on words that occur in indexes. (In other words, the system will not suggest a word that will result in no search results.) Library can modify the system thesaurus as needed to reflect local preferences.

Related Reqs: **Related Process**

Req ID: 7018 **Source:** WEB **Priority:** 3

Name: search limits: scope

Description: Library can define multiple scopes for limiting searches. Examples of limiting scopes are: "DVDs and video downloads", "items at nearby libraries", "Chinese language books, DVDs, and CDs", "large print items", etc. Scopes may include search targets outside the library catalog as well.

Related Reqs: **Related Process**

Req ID: 7007 **Source:** WEB **Priority:** 3

Name: search limits: display

Description: System supports placing multiple limits on any search. System provides a visual indicator when limits are in effect on search results. Limits can be toggled on and off individually.

Related Reqs: **Related Process**

Req ID: 5501	Source: CAP	Priority: 3
Name: opac displays call numbers in initial search results		
Description: opac displays call numbers in initial search results		
Related Reqs:		Related Process
Req ID: 7224	Source: WEB	Priority: 3
Name: search limits: available		
Description: Ability to limit searches to available items, as defined in REQ-7006.		
Related Reqs: 7006		Related Process
Req ID: 7205	Source: WEB	Priority: 3
Name: search limits: call number range		
Description: Ability to limit keyword searches by call number range.		
Related Reqs:		Related Process
Req ID: 7002	Source: WEB	Priority: 2
Name: search limits: reading level		
Description: Ability to limit searches by one or more reading levels, as defined by library. Reading levels may be defined at will, based on MARC Audience field, item call number, owning library, internal or external metadata, and other information in the bibliographic and item record.		
Related Reqs: 7007		Related Process
Req ID: 7216	Source: WEB	Priority: 3
Name: search limits: nonfiction		
Description: Ability to limit search results to nonfiction materials.		
Related Reqs:		Related Process
Req ID: 7014	Source: WEB	Priority: 3
Name: search results: relevancy ranking		
Description: Relevancy ranking can be customized based on which field the search term was found in, individual weighting of fields, and other criteria from the bibliographic record.		
Related Reqs: 7222		Related Process

Req ID: 1704	Source: CAP	Priority: 3
Name: search results: display		
Description: Ability to customize all search result display screens, including selection of fields to display and sorting/limiting options. Ability to set preferred default displays defined by individual user logons with ability to further customize and change settings as needed.		
Related Reqs: 2271 2272 227		Related Process CAT010

Req ID: 7226	Source: WEB	Priority: 3
Name: search results: deduplication		
Description: All search results are deduplicated.		
Related Reqs:		Related Process

Req ID: 7209	Source: WEB	Priority: 3
Name: search results: refinement		
Description: Search results can be refined, limited, and sorted from the initial results list. All search criteria are remembered when search results are refined, limited, or sorted.		
Related Reqs:		Related Process

Req ID: 2361	Source: WEB	Priority: 3
Name: search results: sorting		
Description: System provides ability to sort search results by any field by clicking on column heading, or by selecting a predefined sort from a drop-down menu.		
Related Reqs:		Related Process

Req ID: 7213	Source: WEB	Priority: 3
Name: search results: highlight search terms		
Description: Ability to toggle highlighting of search terms in search results screens.		
Related Reqs:		Related Process

Req ID: 2366	Source: WEB	Priority: 1
Name: search results: details		
Description: When viewing search results, ability to view selected details in a pop-up window by hovering mouse cursor over an item. Clicking a search result displays the full bibliographic record. This capability can be toggled on or off per patron and per system.		
Related Reqs:		Related Process

Req ID: 7223	Source: WEB	Priority: 2
Name: search results: details level		
Description: Ability to expand and collapse search results to view different levels of details.		
Related Reqs:		Related Process

Req ID: 7208	Source: WEB	Priority: 3
Name: search results navigation		
Description: Ability to navigate back and forth between search criteria; initial search results; and refined, limited, and/or sorted search results.		
Related Reqs:		Related Process

Req ID: 7212	Source: WEB	Priority: 3
Name: search scope expansion		
Description: Searches can be expanded on-the-fly to include additional sources, e.g. journals, external websites, WorldCat, Google Books, etc.		
Related Reqs:		Related Process

Req ID: 7009	Source: WEB	Priority: 3
Name: search results: availability		
Description: Ability to display availability (as defined in REQ-7006), last check-in location, and/or last check-in time in search results and on bibliographic or item records. Library may choose to display any or all of this information, in staff interfaces, patron interfaces, or both.		
Related Reqs: 1922		Related Process

Req ID: 7217	Source: WEB	Priority: 3
Name: search results: related items		
Description: Ability to expand search to include related items, e.g. items that have the same subject headings, authors, etc. as the items in the original search results.		
Related Reqs:		Related Process
Req ID: 7204	Source: WEB	Priority: 3
Name: faceted search		
Description: Ability to browse search results by format, language, location, and other categories specified by the Library.		
Related Reqs:		Related Process
Req ID: 7021	Source: WEB	Priority: 1
Name: search results to RSS		
Description: Every search can be turned into an RSS feed directly from the search results page.		
Related Reqs: 6003		Related Process
Req ID: 7207	Source: WEB	Priority: 3
Name: search results pages		
Description: Specific search types can be configured to display the nearest matches in browse mode. For example, when executing a subject search without any results, the system displays nearest matches in index order, and allows browsing up and down the index.		
Related Reqs: 7119		Related Process
Req ID: 7119	Source: WEB	Priority: 2
Name: empty search results		
Description: Empty search results screens are fully customizable, with ability to specify different screens for different types of search. For example, keyword searches and subject browse searches may have different empty results screens. Each empty results screen can include custom links, buttons, widgets, and applications.		
Related Reqs: 7207		Related Process

Req ID: 7101	Source: WEB	Priority: 1
Name: personalized recommendations		
Description: System provides recommendations and event notifications and reminders, based on patron's stated preferences, borrowing patterns, home library, and demographic information.		
Related Reqs: 7112		Related Process

Req ID: 7214	Source: WEB	Priority: 3
Name: visual search refinements		
Description: Visually associative search refinements by type, subject, genre, etc. (Need clarification on this one!)		
Related Reqs:		Related Process

Req ID: 7203	Source: WEB	Priority: 3
Name: item records: persistent URLs		
Description: Item records have persistent URLs.		
Related Reqs:		Related Process

Req ID: 7227	Source: WEB	Priority: 3
Name: material type icons		
Description: Search results and item lists display material type icons.		
Related Reqs:		Related Process

Req ID: 7215	Source: WEB	Priority: 3
Name: item record export		
Description: Ability to export a single item record to file, printer, or email, in any of several specified formats (APA, MLA, etc.) specified by the Library.		
Related Reqs:		Related Process

Req ID: 2391	Source: WEB	Priority: 1
Name: visual shelf browsing		
Description: Provide visual browsing by call number so that a remote patron can see what is on the shelf.		
Related Reqs:		Related Process

Req ID: 7005	Source: WEB	Priority: 1
Name: patron preferred search types		
Description: System remembers patrons' search types and defaults to preferred search types on search pages and in search type menus. Patrons can manually specify and save preferred search types.		
Related Reqs:		Related Process

Req ID: 6003	Source: WEB	Priority: 3
Name: favorite searches		
Description: Patrons can save their favorite searches. Favorite searches are accessible in patron account. Favorite searches can be edited, copied, deleted, and printed in a friendly format defined by the Library. Favorite searches can be used to generate RSS feeds or book alerts (see REQ-6001).		
Related Reqs: 6001 7021 711		Related Process

Req ID: 7222	Source: WEB	Priority: 1
Name: patron search ranking		
Description: Patrons can assign weights to fields to change their default search result rankings.		
Related Reqs: 7014		Related Process

Category: Web Services: Patron Services

Req ID: 7108 **Source:** WEB **Priority:** 1

Name: patron content

Description: System provides a platform for creating and sharing patron content, to include reviews, forums and discussion, ratings, book lists, photos, video, blog entries, shared searches, etc. Patrons have full control over sharing of their content.

Related Reqs: 2190

Related Process

Req ID: 7118 **Source:** WEB **Priority:** 1

Name: patron friends

Description: System allows patrons to add "friends" and create "friends groups", to easily share item lists and other patron content. As in Facebook and other social networking sites, friends can only be added with their approval. Patrons can set permissions to identify how much of their account information and personal content their friends can view.

Related Reqs:

Related Process

Req ID: 6001 **Source:** INT **Priority:** 1

Name: book alerts: definition

Description: Patrons can set up automated book alerts based on author, subject heading, call number range, and format. During process of creating book alert, system displays number of books received in the last year that match the book alert. Book alerts are viewable in patron account and can be delivered via patron-specified methods, including email, text message, and/or RSS. Book alerts include selected fields from the bibliographic record. When the delivery mechanism supports it, book alerts include item covers. All book alerts include a link to book alert results in patron account. Patron may specify that matching books are automatically added to a patron item list (see REQ-7114). Book alerts can be put in "vacation mode"; further alerts are not delivered until vacation mode is turned off. Administrators control format and timing of email messages.

Related Reqs: 6003 7114

Related Process

Req ID: 6002	Source: INT	Priority: 1
Name: book alerts: restrictions		
Description: Book alerts are generated using rules of suppression (REQ-5278), i.e. books that cannot be viewed or held are not included in book alerts.		
Related Reqs: 5278 6001		Related Process
Req ID: 2394	Source: OUT	Priority: 1
Name: forthcoming new book alert		
Description: When placing a hold for an Outreach patron on a specific author, system displays staff alert if books by the same author are on order and facilitates placement of holds on those books.		
Related Reqs:		Related Process
Req ID: 7103	Source: WEB	Priority: 1
Name: automatic subscriptions		
Description: System provides ability for patrons to subscribe to specific authors, subject headings, magazine titles, or series. When a relevant item is ordered and released to the catalog, the item is added to a patron item list and/or a patron hold is automatically placed. The Library can the select item list to add to. The Library can select whether holds will be active or frozen by default.		
Related Reqs:		Related Process
Req ID: 7114	Source: WEB	Priority: 3
Name: item lists: definition		
Description: Patron can create multiple item lists. If a patron is not logged into his/her account, the list is purged when the session cookie times out. If a patron logs into his/her account, lists are saved to the patron account and remain accessible until deleted or purged. Patrons are prompted to save lists to their accounts. Items can be added to or removed from lists; can be moved between lists; and can be annotated by the patron. Patrons can place holds simultaneously on all items in a list, or on selected items. Patrons can export lists to file, printer, or email in several specified formats (e.g. APA, MLA, CSV, etc.) specified by the Library. The Library may configure an "idle" period after which lists are automatically deleted.		
Related Reqs: 7105		Related Process

Req ID: 7105 **Source:** WEB **Priority:** 1

Name: shared lists

Description: System provides ability to share item lists with other patrons, including several levels of permission (visible to all, visible in search results, visible to "friends", visible to specified patrons only).

Related Reqs: 7114

Related Process

Category: Web Services: Patron Account Management

Req ID: 7113 **Source:** WEB **Priority:** 2

Name: patron information

Description: System provides an architecture for storing information related to a patron, in addition to identification information, holds, circulation transactions, and charges and payments. For example, the patron account may hold information about patron preferences and interests; event registration; links to electronic resources; etc.

Related Reqs:

Related Process

Req ID: 7115 **Source:** WEB **Priority:** 1

Name: patron favorite places

Description: System remembers common activities and destinations for each patron, for use in a "favorite places" web page or widget. Library can set default opt-in/opt-out setting, and patrons can opt in or out at any time.

Related Reqs:

Related Process

Req ID: 7104 **Source:** WEB **Priority:** 2

Name: patron PIN reset

Description: System provides a utility for resetting patron PIN and/or password online, without staff intervention.

Related Reqs:

Related Process

Req ID: 7107 **Source:** WEB **Priority:** 1

Name: patron activity history

Description: System provides a log of patron activities in the patron account. Activities might include placing a hold, freezing or unfreezing a hold, subscribing to an RSS feed, signing up for a book alert, etc. Patrons can delete activities or purge the activity log, but this does not remove activities from the system. Library can specify which types of activities are included; whether patron can opt in or out, and retention policy for patron activities.

Related Reqs:

Related Process

Req ID: 7218	Source: WEB	Priority: 3
Name: holds ready for pickup		
Description: The patron holds list displays the date by which each hold must be picked up.		
Related Reqs:	Related Process	

Req ID: 7230	Source: WEB	Priority: 3
Name: patron messages		
Description: System supports internal messaging system, allowing staff and patrons to exchange messages. Patron account includes a message inbox and a "sent" folder, where patrons can read, archive, reply to, and delete messages. Staff can access all messages, including those deleted by patrons. Patron notices can be copied to the patron inbox, regardless of the method they are sent by. Email messages from patrons can be copied to the patron "sent" folder.		
Related Reqs:	Related Process	

Category: Global Requirements

Req ID: 6512 **Source:** ITS **Priority:** 3**Name:** SQL-based database**Description:** System runs on a fully relational, SQL-based database system. Ability to run SQL queries against any table in the database. Ability to access database as an ODBC source. All data tables and data storage are fully accessible.**Related Reqs:** 2456 2475**Related Process**

Req ID: 6511 **Source:** ITS **Priority:** 3**Name:** secure protocol support**Description:** System supports secure protocols, including SFTP, SSL, and SSH. SFTP is supported in both active and passive modes, configurable per vendor.**Related Reqs:****Related Process**

Req ID: 7010 **Source:** WEB **Priority:** 3**Name:** staff access to patron functions**Description:** Staff can perform actions on behalf of patrons, such as placing holds, checking availability, etc., without logging out of staff accounts or changing current view. For example, from a search results screen, staff can select one or more items and place a hold for a specific patron, without leaving the current window. In cases where the action requires displaying additional information, a new window is opened and the staff person returns to the original window when done.**Related Reqs:** 5264**Related Process**

Category: Interface Requirements

Req ID: 7001 **Source:** WEB **Priority:** 3

Name: authentication gateway

Description: System serves as an authentication gateway for online subscription databases and other electronic resources and external services. For example, patron clicks to access a subscription database on the Library website; system prompts for username or patron barcode, and password or PIN; system authenticates patron and redirects to subscription database with an authorized session cookie and/or an authorized referring URL. In case of an invalid username, patron barcode, password, or PIN, the system returns a customizable error message to the patron. On successful authentication, the patron's "last electronic use date" field is updated with the current date. System supports single login for multiple resources. Session cookies can be configured to expire after a specified time period. Referring URL can be configured per subscription database and updated at will.

Related Reqs: 6101

Related Process

Req ID: 6026 **Source:** INT **Priority:** 3

Name: transactional communication

Description: System supports transactional communication with external services, for example providing APIs to read and update patron records, bibliographic records, item records, etc.

Related Reqs: 2438 1636

Related Process

Req ID: 1636 **Source:** INT **Priority:** 3

Name: SIP2 and NCIP2 support

Description: System supports SIP2 and NCIP2 for interfacing with external applications. Support standard SIP2 and NCIP2 messages, and provide capacity for adding additional messages as formats evolves.

Related Reqs: 6026

Related Process

Req ID: 2438	Source: ITS	Priority: 3
Name: patron API		
Description: System provides a well-documented Patron API, for interfacing with external applications. System receives either a username, a barcode or a record number, and optionally either a PIN or a password. System returns an error code and patron information, if available. Error codes include: valid patron (no PIN or password provided), valid patron and valid PIN or password; valid patron and invalid PIN or password; invalid patron. Patron information includes at least: patron username, patron barcode, patron record number, patron type, name, address, phone, birthdate, creation date, last updated date, last use date, last electronic use date, expiration date, account balance, number of items checked out, number of items on hold, blocks, collections blocks.		
Related Reqs: 6026		Related Process
Req ID: 6124	Source: INT	Priority: 2
Name: suppress patron name		
Description: Ability to suppress patron name on all displays, on a per-system or per-patron basis. Patron may select option to display or mask patron name through patron account settings.		
Related Reqs:		Related Process
Req ID: 7121	Source: WEB	Priority: 3
Name: notification preferences		
Description: Patrons can select notifications they would like to receive; specify one or more methods for receiving each type of notice; specify preferred frequency of notifications; and specify whether to receive repeat notices (e.g. receive hold pickup notices every day until hold is picked up or expired, or receive one hold pickup notice per item). See Requirements 1938, 5101, 5109, 5111, 5211, 5384, and 7229 for related requirements.		
Related Reqs:		Related Process
Req ID: 6201	Source: INT	Priority: 3
Name: self check-out user interface		
Description: Self check-out system shows the same data to patrons as all other interfaces, including staff check-out interface and patron web interface.		
Related Reqs:		Related Process

Req ID: 7229	Source: WEB	Priority: 3
Name: RSS notices		
Description: System supports RSS feeds for patron notices.		
Related Reqs: 6122		Related Process

Category: Acquisitions Requirements

Req ID: 3101	Source: ACQ	Priority: 3
Name: patron purchase requests		
Description: Patron requests are collected through website (or, less preferably, through a separate webform); patron information is authenticated against ILS; requested items are checked for existence in the collection; owned items are flagged for communication to patron; unowned items directly populate a selection list (see REQ-3004) in the ILS so that retyping is unnecessary. Additionally, information on which vendors have the requested titles would be helpful at the review stage. Ability to manage patron requests throughout the selection and ordering process and generate patron notifications (see REQ-3102).		
Related Reqs: 3102 3004 430		Related Process PAT000

Req ID: 2190	Source: ACQ	Priority: 3
Name: enhanced vendor content		
Description: Ability to accept enhanced opac content from vendors, e.g. jacket images, full-text reviews, tags, read-alike suggestions, etc. System will support LibraryThing, ChiliFresh, Content Café, LiveChat, and others vendors.		
Related Reqs: 2188 7108		Related Process

Req ID: 4303	Source: SER	Priority: 3
Name: serials holdings record display in opac		
Description: Information from the serials holdings record can be displayed in the OPAC in a customizable, user-friendly way. Specifically, summary holdings statement is easily browsable, issues are listed in reverse chronological order, and patron can easily place holds on first available copy.		
Related Reqs: 2309 2311		Related Process

Category: Cataloging Requirements

Req ID: 5517

Source: CAP

Priority: 2

Name: material type codes

Description: Support unlimited number of user-definable material type codes, values, and indexes (e.g. book, music CD, online resource, etc.).

Related Reqs:

Related Process

Category: Circulation Requirements

Req ID: 5175 **Source:** CIR **Priority:** 3

Name: held items do not count against hold limit

Description: When hold is ready for pick up, item should no longer count as one of patron's maximum number of holds. (This rule should be configurable at a system level.)

Related Reqs: **Related Process**

Req ID: 1959 **Source:** CIR **Priority:** 2

Name: patron password (PIN)

Description: Patron passwords are alphanumeric; numeric-only passwords are allowed. Library may set minimum and maximum limits on password length.

Related Reqs: **Related Process**

Req ID: 2039 **Source:** CIR **Priority:** 3

Name: patron pin override

Description: Staff are able to assist patrons with functions that require a PIN. System provides a way to authenticate a patron PIN from the staff interface. System provides the possibility for patrons of specified patron type (e.g. Outreach patrons) to have a second PIN, visible to staff. Staff can reset PINs.

Related Reqs: **Related Process**

Req ID: 5408 **Source:** CIR **Priority:** 3

Name: patron-selected username

Description: System provides option for patron to select a username and password, which can then be used to access OPAC, self check-out station, online databases, public PC booking system, and other electronic resources. In every case where patron authentication occurs, patrons can enter either a patron barcode or a username, and a password, and the system will handle authentication transparently.

Related Reqs: **Related Process**

Req ID: 1979	Source: CIR	Priority: 3
Name: patron address changes		
Description: Patrons can update their addresses, phone numbers, email addresses, and pickup location through the public web interface. Address changes are put in a review list for confirmation by library staff.		
Related Reqs:		Related Process

Req ID: 5226	Source: CIR	Priority: 3
Name: patron hold position		
Description: Current hold position is shown as 'nth hold on x circulating copies' or 'Ready for Pickup'. Additional statuses like 'In Transit' are hidden from patron but visible in staff interfaces.		
Related Reqs:		Related Process

Req ID: 5214	Source: CIR	Priority: 3
Name: hold wait estimate		
Description: Ability for patron hold list to include an estimate of how long patron will wait for a hold, based on position in queue, number of circulating copies, average length of time kept by patrons, and other criteria specified by Library. When held item is in transit, display a system-defined value (e.g. "1-2 days"). This feature can be enabled or disabled by a system parameter.		
Related Reqs:		Related Process

Req ID: 5216	Source: CIR	Priority: 3
Name: patron error messages		
Description: Patron error messages are specific and unambiguous. For example, if a hold request is unsuccessful, the error message should say why (hold limit reached, no available copies, etc.).		
Related Reqs: 1652 7220		Related Process

Req ID: 5409	Source: CIR	Priority: 3
Name: linked patrons (patron version)		
Description: System provides ability for patrons to link their records in a way that grants privileges. A patron can request a link to another patron's record. The target patron must accept the link. A patron may select an option to refuse all links. Once a link is accepted, a patron can review a linked patron's hold list and checked-out item list at a self check-out station or through the OPAC. A patron can pay fines belonging to a linked patron.		
Related Reqs:		Related Process

Req ID: 5046	Source: CIR	Priority: 3
Name: patron holds and check-out history		
Description: Patrons can choose to keep history of items held and/or checked out. By default, no check-out history is maintained. If enabled, history is visible through the patron account and can be searched. Patron can export history to file, printer, or email, in any of several formats defined by the Library. Patron can clear history and can set a parameter to retain items for X months. Opting out deletes existing history, with appropriate warnings to patron. Staff can not view patron history. When patron is deleted, patron holds and check-out history is cleared (along with all other patron lists). Patron record has a field showing whether history is enabled.		
Related Reqs: 5410		Related Process

Req ID: 2184	Source: ACQ	Priority: 3
Name: view copies, holds, and check-out status		
Description: Ability to see number of copies, check-out status, and number of holds all on one screen. (Staff interface and patron interface.)		
Related Reqs:		Related Process SEL005

Req ID: 5181	Source: CIR	Priority: 3
Name: hold functions		
Description: All hold functions are available in all modules and modes, including placing holds, freezing holds, and changing position in queue.		
Related Reqs:		Related Process

Req ID: 5271	Source: CIR	Priority: 3
Name: hold note field (patron)		
Description: Have a hold note field for patrons that would print within the (email or mail) pickup notice but not on the holds slip and would display in My Account.		
Related Reqs: 5272		Related Process

Req ID: 1843	Source: CIR	Priority: 3
Name: sequenced holds		
Description: Ability to place hold on a several items, and have them arrive in order. (I.e., hold B is not triggered until hold A is filled, checked out, and returned.)		
Related Reqs:		Related Process

Req ID: 5276	Source: CIR	Priority: 3
Name: 'deny if locally available' setting		
Description: By default, items can be held regardless of whether they are available on the shelf. If the 'deny' flag is on, that condition is evaluated after the loan and holdability rules are evaluated. The existence of non-circulating copies should never prevent a hold on a title. Requesting rules may prevent placing holds on locally available items, if desired. In that case, staff may override for specific holds. (See REQ-5190 for details on holdability.)		
Related Reqs: 5190		Related Process

Req ID: 5267	Source: CIR	Priority: 3
Name: default hold pickup location		
Description: When patron places hold, the pickup location defaults to the patron's home library.		
Related Reqs:		Related Process

Req ID: 5263	Source: CIR	Priority: 3
Name: 'not wanted after' holds		
Description: Patrons can enter Not Wanted After date. Holds are removed from patron hold list after Not Wanted After date. Do not send cancellation notice. Default to two years.		
Related Reqs:		Related Process

Req ID: 5262	Source: CIR	Priority: 3
Name: 'not wanted before' holds		
Description: Patrons can enter Not Wanted Before date. Request process does not start until this date.		
Related Reqs:		Related Process

Req ID: 5176	Source: CIR	Priority: 3
Name: freezing holds (patrons)		
Description: Patrons can freeze any hold at any time, except those on the hold shelf. Hold continues to move up within the queue but will not trigger while frozen. Patron can specify a date to 'unfreeze' the hold.		
Related Reqs:		Related Process

Req ID: 1803	Source: CIR	Priority: 2
Name: hold first available copy		
Description: Allow staff and patrons to place holds on first available copies of materials, including first available copies of specific magazine issues or specific volumes in a multi-volume set.		
Related Reqs: 5268		Related Process

Req ID: 5388	Source: CIR	Priority: 2
Name: multiple format holds		
Description: Ability to place a hold that can be filled by one or more formats or editions, as specified by the patron. For example, a patron could place a hold on "War and Peace" that could be filled by several editions of the book, or by the audiobook, but not by the DVD.		
Related Reqs: 5189 7301		Related Process

Req ID: 5260	Source: CIR	Priority: 3
Name: holds on non-circulating items		
Description: Ability to place holds on non-circulating items, such as new issues of magazines. The hold is 'frozen' until the item starts circulating. There needs to be a special indicator in the item record to designate that a currently non-circulating item will eventually start circulating.		
Related Reqs:		Related Process

Req ID: 5103	Source: CIR	Priority: 3
Name: fine calculator		
Description: Fine Calculator calculates total fines owed if patron pays today, as well as subtotal of selected overdue items in checked-out list.		
Related Reqs:		Related Process

Req ID: 5129	Source: CIR	Priority: 3
Name: credit card payments		
Description: Accept credit and debit card payments at accounts desks, self check-out stations, and through the public web interface. Payments should be visible in the patron account immediately, and related blocks should be removed immediately.		
Related Reqs:		Related Process

Software Requirements Specification

for the

System Administration

of an

Integrated Library System

Version 3.0 final

Prepared by Lori Ayre and Lucien Kress

Galecia Group

January 28, 2009

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Revision History

Name	Date	Reason For Changes	Version
Lucien Kress	9/26/08	Initial Draft	1.0 draft
Lucien Kress	12/1/08	Revisions, Requirements workshop	2.0 draft
Lucien Kress	1/28/09	Revisions, Final	3.0 final

1. Introduction

1.1 Purpose and Perspective

This Software Requirements Specification (SRS) describes the functional and nonfunctional requirements for the System Administration Module of an Integrated Library System (ILS). The requirements were developed specifically for King County Library System, but are believed to be suitable for many large, urban, multiple-branch, centralized library systems.

The requirements in this SRS presuppose the general data structures and functionality of a full-fledged ILS. The System Administration Module will replace and enhance the current capabilities of commercially available ILSes, as well as add new functionality.

1.2 Product Scope and Features

The System Administration Module facilitates the management of every aspect of the Integrated Library System. Specifically, the System Administration Module support the following activities, among others:

- Configuring the ILS to enable and support features and processes required for management of the Library branches, patrons, collections, and circulation transactions.
- Monitoring, troubleshooting, and controlling server performance.
- Monitoring, troubleshooting, and controlling database and application performance.
- Monitoring, troubleshooting, and controlling services, ports, and application programming interfaces.
- Managing user and group accounts and privileges.
- Managing server and client software installation, upgrades, and updates.
- Backing up databases, configuration files, log files, etc.

The current specification presupposes the general functionality of an ILS and specifies only those requirements that directly or indirectly relate to management activities. King County Library has previously published specifications for Acquisitions and Serials Management, Circulation, and Cataloging modules. Requirements for OPAC and web services are currently under development.

Moreover, the current specification is focused on functional characteristics of System Administration. Data structures and user interfaces will require further specification and development using an iterative, prototype-oriented software development methodology.

1.3 Intended Audience

This SRS is intended both for library managers and staff who may contribute additional requirements or commentary, and for software project managers and developers who will implement the requirements. As such, it aims for a high level of readability for a non-technical audience, while providing enough specificity to be useful to a software developer.

It is assumed that when software development occurs, it will be in a highly collaborative and iterative environment in which end-users have multiple opportunities to review prototypes and refine the user interface and software functionality.

It is also assumed that the reader has a general understanding of Library services and processes and does not require definition of common Library terminology.

1.4 Document Conventions

The SRS includes requirements. Requirements include a reference to a process flowchart where appropriate. Flowcharts generally indicate the current approach to System Administration at King County Library System, and should be considered to give contextual information rather than to prescribe or constrain new software development.

1.5 User Classes and Characteristics

Patron	A Patron is a customer of King County Library System, either possessing a library card or not, either on site of a community library or not, using either print materials, media materials, or electronic resources.
Staff	Staff include managers, librarians, library technicians, library assistants, and library pages who are involved in designing and providing services for the Library.
System Administrators Managers	System Administrators include staff with responsibility for managing servers, databases, applications, services, ports, and APIs related to the ILS. Managers include management staff who oversee Library processes.
Library Managers	Library Managers include Cluster and Site Managers who provide input to the design and implementation of Library services.
Library Directors	Library Directors include members of the Library Executive Team who plan and direct Library services and priorities.

1.6 Operating Environment

- OE-1: System Administration support the needs of a large, multiple-branch library system. Specifically, the system must support a library system with 50 locations, 20 million circulations, purchasing and processing over 500,000 items per year. It is highly desirable that searches and reports can be processed during open hours without disrupting other system functions.
- OE-2: System Administration shall operate on a Linux or Solaris server.
- OE-3: System Administration shall be accessible through a web-browser or a Windows-compatible client.
- OE-4: If web-browser based, System Administration shall be accessible through Microsoft Internet Explorer (v.6.0 and later) and Mozilla Firefox (v.2.0 and later).
- OE-5: System Administration shall be accessible with screen-reading software, screen-magnification software, and other software programs designed to increase accessibility.

1.7 Design and Implementation Constraints

- CO-1: System Administration Module shall use a fully relational database back-end.

- CO-2: System Administration Module shall produce standards-compliant HTML.
- CO-3: System Administration Module shall provide a development and training environment with the ability to migrate configurations to a production environment.
- CO-4: User rights and privileges will be controlled through security groups and/or “roles” that allow access control for individuals, workgroups, and arbitrary staff groups.

1.8 User Documentation

- UD-1: The software developer shall provide complete data specifications for authority records, bibliographic records, order records, item records, hold/request records, and other records maintained or accessed by the System Administration Module.
- UD-2: The software developer shall provide a thorough high-level description of major processes, including bibliographic record import and export, validation of bibliographic records against internal and external authority sources, and standard reports.
- UD-3: The system shall provide an online, hierarchical, and cross-linked help system in HTML that describes and illustrates all system functions.

1.9 Assumptions and Dependencies

- AS-1: The System Administration Module is part of an enterprise-level Library Automation System.
- AS-2: System Administration process are consolidated at a central location, and accept input and provide services to multiple locations.
- DE-1: The System Administration Module relies on the data structures and functionality of an enterprise-level Library Automation System, including Acquisitions and Cataloging modules.
- DE-2: The System Administration Module interface with a variety of vendor websites, via published APIs and/or automated transfer of standard-format data files (e.g. USMARC21, EDIFACT).
- DE-3: The System Administration Module interacts with a patron interface, also known as an Online Public Access Catalog (OPAC).

System Requirements

Category: Systems: General

Req ID: 6512 **Source:** ITS **Priority:** 3

Name: SQL-based database

Description: System runs on a fully relational, SQL-based database system. Ability to run SQL queries against any table in the database. Ability to access database as an ODBC source. All data tables and data storage are fully accessible.

Related Reqs: 2456 2475 **Related Process**

Req ID: 5615 **Source:** MGT **Priority:** 3

Name: real-time processing

Description: The system provides real-time processing. For example: pull lists are up to date at time of viewing or printing; system supports live shelf reading and weeding.

Related Reqs: **Related Process**

Req ID: 5323 **Source:** CIR **Priority:** 3

Name: field and record sharing

Description: Ability for multiple staff members and patrons to simultaneously access and update patron and item records, including on staff check-in and check-out terminals, on self check-out stations, through SIP2/NCIP2 and similar protocols and APIs, and in OPAC. Depending on assigned privileges, staff can view all patron and item fields; patrons can access only selected fields. Record changes are applied in a reasonable way, with prompts to warn when a record has been changed since it was displayed.

Related Reqs: **Related Process**

Req ID: 6513 **Source:** ITS **Priority:** 3

Name: record lock management

Description: For any patron record or item record, staff can identify where it is in use (location, user, date and time placed).

Related Reqs: 6501 7302 **Related Process**

Req ID: 2492 **Source:** ACQ **Priority:** 2
Name: individual and shared staff login accounts
Description: Support for individual and shared staff login accounts; access to modules is granted by use of "roles" or "privileges" that allow each account to access as many (or as few) modules as needed. Individual logins allow user-level preferences and audit trail.
Related Reqs: 5514 **Related Process**

Req ID: 2428 **Source:** ITS **Priority:** 3
Name: system documentation
Description: System documentation is library-specific and follows standard formats for technical documentation. Documentation is specific to the particular version of the software in use at library. Documentation is web-based, indexed, organized by function, and easily searchable.
Related Reqs: **Related Process**

Req ID: 2431 **Source:** ITS **Priority:** 3
Name: system upgrade guidelines
Description: System upgrades and updates include written guidelines for updating servers and clients. Includes list of new, changed, and removed features.
Related Reqs: **Related Process**

Req ID: 2479 **Source:** ITS **Priority:** 3
Name: configuration file access
Description: System provides access to all configuration files.
Related Reqs: **Related Process**

Req ID: 2474 **Source:** ITS **Priority:** 3
Name: log file access
Description: System provides full access to all log files. Log files can be reviewed without stopping system. Logs can be enabled, disabled, and set to a specific retention threshold.
Related Reqs: **Related Process**

Req ID: 2470	Source: ITS	Priority: 3
Name: root shell access		
Description: System provides access to root shell.		
Related Reqs:		Related Process

Category: Systems: Consoles and Dashboards

Req ID: 6520	Source: ITS	Priority: 3
Name: dashboard configuration		
Description: System supports creation of custom dashboards that display current and historical data about system performance, record creation and modification, circulation transactions, etc. Administrators can create dashboards and give access to selected users and groups.		
Related Reqs:		Related Process

Req ID: 6501	Source: ITS	Priority: 3
Name: system monitoring		
Description: System provides full support for SNMP and supports monitoring of system resources, including disk space, CPU load, memory load, system processes, system interfaces and ports. Alert thresholds are configurable. Alerts can be sent via administrative dashboards, email messages, and text messages. Alerts can be sent to unlimited number of recipients via any or all alert methods.		
Related Reqs:		Related Process

Req ID: 7302	Source: ITS	Priority: 3
Name: record lock administration		
Description: Ability to set thresholds on the length of time records are locked and provide, for all record types, a list of records in sustained use/locked condition. Ability from the same console to unlock one or more records.		
Related Reqs: 6513		Related Process

Req ID: 2467	Source: ITS	Priority: 3
Name: system performance dashboard		
Description: System provides dashboard of performance monitoring and management tools. Identification of processes with process ID, owner username, IP address (if applicable), CPU utilization, memory utilization, run time. Runaway processes are identified. System status is represented by visual indicators (e.g. green and red lights).		
Related Reqs:		Related Process

Req ID: 2466	Source: ITS	Priority: 3
Name: server console		
Description: System provides a server management console including: software shutdown utility, software startup utility, server shutdown utility, server restart utility.		
Related Reqs:		Related Process

Req ID: 2464	Source: ITS	Priority: 3
Name: application dashboard		
Description: System provides an administrative dashboard displaying: last full and incremental backup; last planned and unplanned system reboot; last software upgrade; current software version; transactions waiting to be processed; size of log-files; current count of records by record type (item, bibliographic, patron etc), database utilization (size, processes running).		
Related Reqs:		Related Process

Req ID: 2430	Source: ITS	Priority: 3
Name: client management console		
Description: System provides a management console displaying workstations running client software; workstation name and IP address; and utilities for managing and killing client sessions.		
Related Reqs:		Related Process

Req ID: 6503	Source: ITS	Priority: 3
Name: circulation dashboard		
Description: System provides a circulation dashboard showing key performance indicators such as check-outs per hour, check-ins per hour, holds placed per hour, holds paged per day, etc. Indicators can be limited to a single branch or set to systemwide.		
Related Reqs:		Related Process

Req ID: 6517	Source: ITS	Priority: 3
Name: configuration file console		
Description: System provides a single console with access to all configuration files. Read and write permission to individual configuration files can be assigned to users and groups.		
Related Reqs:		Related Process

Req ID: 2433	Source: ITS	Priority: 3
Name: log-file dashboard		
Description: System provides a dashboard for locating and viewing log files.		
Related Reqs:		Related Process

Req ID: 6521	Source: ITS	Priority: 3
Name: job scheduling console		
Description: System provides a single interface for reviewing and controlling scheduled tasks, including staff-scheduled tasks, automated reports, scheduled imports and exports, software updates, etc.		
Related Reqs:		Related Process

Req ID: 6515	Source: ITS	Priority: 3
Name: email configuration		
Description: Ability to access and edit email configuration, including a quick menu of common settings (such as masquerading, log retention, bounce management).		
Related Reqs:		Related Process

Req ID: 6516	Source: ITS	Priority: 3
Name: SMTP support		
Description: System supports SMTP for email transport.		
Related Reqs:	Related Process	

Category: Systems: Business Rules

Req ID: 2445	Source: ITS	Priority: 3
Name: business rules		
Description: System supports restrictions based on business rules, e.g. restrictions on deleting item records that are in checked-out status, or restrictions on deleting bibliographic records with existing holds.		
Related Reqs:	Related Process	

Req ID: 5278	Source: CIR	Priority: 3
Name: suppression rules		
Description: System provides customizable 'Rules of Suppression' that specify whether patrons and staff can view authority, bibliographic, order, and item records in staff and public (OPAC) interfaces. Records may be visible to specific workgroups only; to all staff and patrons at specific locations; or to all staff and all patrons. (See REQ-5057 for related requirements on loan rules, and REQ-5190 for related requirements on holdability.)		
Related Reqs: 5057 5190 580	Related Process CAT180	

Req ID: 5190	Source: CIR	Priority: 3
Name: requesting rules		
Description: System allows creation and modification of requesting rules that determine whether a patron can place a hold on an item. Requesting rules may evaluate patron type, current number of holds, current patron account balance, item type, item status, owning location code, and other criteria. For example, requesting rules may prohibit patrons from placing holds on on-order CD titles, but allow patrons to place holds on other on-order titles. Requesting rules also specify whether staff with specific privileges or roles can override specific criteria. (See REQ-5057 re loan rules, REQ-5278 re visibility.)		
Related Reqs: 5057 5278	Related Process HOL-011	

Req ID: 5057	Source: CIR	Priority: 3
Name: loan rules		
Description: System allows creation and modification of loan rules that allow or disallow check-out of items, calculate loan periods, and determine renewal limits. Loan rules may evaluate patron type, current number of items checked out, current patron account balance, item type, item status, owning location code, check-out location code, and other criteria. For example, loan rules may prohibit patrons from checking out items with an unavailable status, e.g. an item with a triggered hold for another patron or an item that is already checked out to another patron. Loan rules can access check-out location open/closed schedule in calculating due date. Loan rules also specify whether a specific criteria may be overridden by staff with specific privileges or roles. (Also see REQ-5190 re requesting rules.)		
Related Reqs: 5190		Related Process HOL-131

Req ID: 5328	Source: CIR	Priority: 3
Name: data validation		
Description: Ability to specify default value, data validation, automatic formatting, and required status for any field.		
Related Reqs:		Related Process

Category: Systems: Data Recovery

Req ID: 6502	Source: ITS	Priority: 3
Name: system backup		
Description: System provides capability to perform live incremental and full backups of data and transaction logs. System supports use of third-party backup software such as EMC NetWorker.		
Related Reqs:		Related Process

Req ID: 6505	Source: ITS	Priority: 3
Name: data rollback		
Description: System logs data changes (such as record deletions) and provides "undo" functionality. Ideally, system provides revision control.		
Related Reqs:		Related Process

Req ID: 2462	Source: ITS	Priority: 3
Name: server clustering		
Description: Ability to cluster servers for failover capability.		
Related Reqs:		Related Process

Category: Systems: Security

Req ID: 6510	Source: ITS	Priority: 3
Name: patron data security		
Description: Patron data is secure in all transfers to and from the system.		
Related Reqs:		Related Process

Req ID: 6509	Source: ITS	Priority: 3
Name: user account privileges		
Description: System administrative staff has full visibility and control of user privileges.		
Related Reqs:		Related Process

Req ID: 6511	Source: ITS	Priority: 3
Name: secure protocol support		
Description: System supports secure protocols, including SFTP, SSL, and SSH. SFTP is supported in both active and passive modes, configurable per vendor.		
Related Reqs:		Related Process

Category: Systems: Maintenance

Req ID: 1716 **Source:** CAP **Priority:** 3
Name: MARC import/export
Description: MARC bibliographic and authority records can be imported and exported, singly and in batch, all fields or selected fields, to and from vendors including OCLC. Imported records can overlay existing short or full bibliographic records. Imported batches can be maintained and manipulated as selection lists (see REQ-3004).
Related Reqs: 3004 **Related Process** CAT180

Req ID: 6518 **Source:** ITS **Priority:** 3
Name: record sets
Description: System supports an unlimited number of record sets, with the ability to import and export set members in batch. Record sets can be the basis for batch field updates; can be used as a limiting scope for queries; can be used to delete original records with the ability to review prior to deletion, write errors to a log file, and undo one or more deletions.
Related Reqs: 2204 **Related Process**

Req ID: 2420 **Source:** ITS **Priority:** 3
Name: staff account setup
Description: System provides a dedicated interface for creating new staff accounts. New staff account creation process provides configurable templates for account administrator use; provides granular privileges for account creation, modification, and deletion.
Related Reqs: **Related Process**

Req ID: 2419 **Source:** ITS **Priority:** 3
Name: patron account setup
Description: System provides a dedicated interface for creating new patron accounts. Patron account creation process provides configurable templates for staff use; supports field validation and required fields; provides configurable defaults.
Related Reqs: **Related Process**

Req ID: 6507	Source: ITS	Priority: 3
Name: job scheduling		
Description: System supports scheduling of maintenance tasks, reports, and data exports. Jobs can be scheduled in sequence ("start job B when job A finishes") and can be modified or cancelled at any time prior to starting.		
Related Reqs:		Related Process

Req ID: 6508	Source: ITS	Priority: 3
Name: job scheduling: management		
Description: Staff can be given permission to schedule tasks, reports, and data exports. System administration staff can view and manage jobs scheduled by other staff.		
Related Reqs:		Related Process

Req ID: 2220	Source: ACQ	Priority: 3
Name: keyboard macros and shortcuts		
Description: System supports administrator-programmable and user-programmable macros and/or keyboard shortcuts. Shortcut keys may be assigned to macros (e.g. 'Insert Field') or to text strings. Macros are centrally managed on server, can be imported from and exported to individual users, and can be restricted for use and/or editing through centrally-managed permissions.		
Related Reqs:		Related Process

Category: Systems: Client Management

Req ID: 6514	Source: ITS	Priority: 3
Name: accounts independent from workstation		
Description: Staff and group accounts are independent from workstations; client install should not be tied to a specific location.		
Related Reqs:		Related Process

Req ID: 6504	Source: ITS	Priority: 3
Name: client software updates		
Description: Client software installation and updates must be centrally managed, using standard or proprietary network management tools, allowing streaming updates from server. Ability to specify specific clients to be updated. Client software can be managed with VNC and Remote Desktop.		
Related Reqs: 2430		Related Process

Req ID: 6519	Source: ITS	Priority: 3
Name: client configurations		
Description: All client configuration files are server based; configurations can be exported and imported between clients.		
Related Reqs:		Related Process

Category: Systems: Queries & Reports

Req ID: 2197	Source: ACQ	Priority: 2
Name: report format and output		
Description: Ability to fully customize layout and appearance of reports. Ability to display, print, email, or save report to standard formats including CSV and Excel, as well as to customizable formats.		
Related Reqs:		Related Process

Req ID: 5624	Source: MGT	Priority: 3
Name: query tool		
Description: System provides a user-friendly interface for designing queries against all record types. Staff can select fields to query; select values from picklist of possible values; select regular expressions from drop-down menu, and use a full range of Boolean operators. Administrators control staff access to tables and fields.		
Related Reqs:		Related Process

Req ID: 5607	Source: MGT	Priority: 3
Name: report templates		
Description: System administrators can create report templates that are available to front-line staff, and can be run as is or modified to the staff person's particular needs.		
Related Reqs:		Related Process

Req ID: 5617	Source: MGT	Priority: 3
Name: reports permissions		
Description: System provides fine-grained permissions to allow or disallow staff to run specific reports, and/or to run ad hoc reports on specific sets of data.		
Related Reqs:		Related Process

Req ID: 2465	Source: ITS	Priority: 3
Name: record number report		
Description: System reports for each record type: current record number, current number of records, number deleted, and number purged. Record types include patron, bibliographic, item, order, invoice, etc. Access to record numbers is controlled at the user/group level.		
Related Reqs:		Related Process

Req ID: 2441	Source: ITS	Priority: 3
Name: printer support		
Description: Ability to define and select four types of printers: receipt printer, standard printer, label printer, and forms printer. All Windows printers are supported.		
Related Reqs:		Related Process

Req ID: 2439	Source: ITS	Priority: 3
Name: multiple print output options		
Description: Ability to print to a file on the server, ftp , email, or printer from any part of the application. When applicable, the ability to select record fields and control order of fields when printing.		
Related Reqs:		Related Process

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Revision History

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Lucien Kress	10/21/08	Initial Draft	1.0 draft
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The requirements in this SRS presuppose the general data structures and functionality of a full-fledged ILS. The System Interfaces will replace and enhance the current capabilities of commercially available ILSes, as well as add new functionality.

1.2 Product Scope and Features

The System Interfaces facilitate communication with external vendors, applications, and services that augment the ILS. Specifically, the System Interfaces support the following processes and services, among others:

- Patron authentication to allow access to licensed or limited resources
- Electronic resources such as subscription databases
- Automated Materials Handling processes
- Self Check-in and Self Check-out stations
- Telephone notification and renewal services
- Text notification services
- Holds delivery services
- Ecommerce and Collections processes

The current specification presupposes the general functionality of an ILS and specifies only those requirements that directly or indirectly relate to external vendors, applications, and services. King County Library has previously published specifications for Acquisitions and Serials Management, Circulation, and Cataloging modules. Requirements for OPAC, web services, and management reporting are currently under development.

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- CO-4: User rights and privileges will be controlled through security groups and/or “roles” that allow access control for individuals, workgroups, and arbitrary staff groups.
- CO-5: These requirements shall not constrain functionality or features of the Online Public Access Catalog (OPAC) module.

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1.9 Assumptions and Dependencies

- AS-1: System Interfaces are part of an enterprise-level Library Automation System.
- AS-2: System Interfaces are consolidated at a central location, and accept input and provide services to multiple locations.
- DE-1: System Interfaces rely on the data structures and functionality of an enterprise-level Library Automation System, including Acquisitions and Cataloging modules.
- DE-2: System Interfaces interact with a variety of vendor websites, via published APIs and/or automated transfer of standard-format data files (e.g. USMARC21, EDIFACT).
- DE-3: System Interfaces interact with a patron interface, also known as an Online Public Access Catalog (OPAC).

System Requirements

Category: Interfaces: General

Req ID: 5323 **Source:** CIR **Priority:** 3
Name: field and record sharing
Description: Ability for multiple staff members and patrons to simultaneously access and update patron and item records, including on staff check-in and check-out terminals, on self check-out stations, through SIP2/NCIP2 and similar protocols and APIs, and in OPAC. Depending on assigned privileges, staff can view all patron and item fields; patrons can access only selected fields. Record changes are applied in a reasonable way, with prompts to warn when a record has been changed since it was displayed.

Related Reqs: **Related Process**

Req ID: 7001 **Source:** WEB **Priority:** 3
Name: authentication gateway
Description: System serves as an authentication gateway for online subscription databases and other electronic resources and external services. For example, patron clicks to access a subscription database on the Library website; system prompts for username or patron barcode, and password or PIN; system authenticates patron and redirects to subscription database with an authorized session cookie and/or an authorized referring URL. In case of an invalid username, patron barcode, password, or PIN, the system returns a customizable error message to the patron. On successful authentication, the patron's "last electronic use date" field is updated with the current date. System supports single login for multiple resources. Session cookies can be configured to expire after a specified time period. Referring URL can be configured per subscription database and updated at will.

Related Reqs: 6101 **Related Process**

Req ID: 6026 **Source:** INT **Priority:** 3
Name: transactional communication
Description: System supports transactional communication with external services, for example providing APIs to read and update patron records, bibliographic records, item records, etc.

Related Reqs: 2438 1636 **Related Process**

Req ID:	1636	Source:	INT	Priority:	3
Name:	SIP2 and NCIP2 support				
Description:	System supports SIP2 and NCIP2 for interfacing with external applications. Support standard SIP2 and NCIP2 messages, and provide capacity for adding additional messages as formats evolves.				
	Related Reqs:	6026	Related Process		

Req ID:	2438	Source:	ITS	Priority:	3
Name:	patron API				
Description:	System provides a well-documented Patron API, for interfacing with external applications. System receives either a username, a barcode or a record number, and optionally either a PIN or a password. System returns an error code and patron information, if available. Error codes include: valid patron (no PIN or password provided), valid patron and valid PIN or password; valid patron and invalid PIN or password; invalid patron. Patron information includes at least: patron username, patron barcode, patron record number, patron type, name, address, phone, birthdate, creation date, last updated date, last use date, last electronic use date, expiration date, account balance, number of items checked out, number of items on hold, blocks, collections blocks.				
	Related Reqs:	6026	Related Process		

Req ID:	5408	Source:	CIR	Priority:	3
Name:	patron-selected username				
Description:	System provides option for patron to select a username and password, which can then be used to access OPAC, self check-out station, online databases, public PC booking system, and other electronic resources. In every case where patron authentication occurs, patrons can enter either a patron barcode or a username, and a password, and the system will handle authentication transparently.				
	Related Reqs:		Related Process		

Req ID:	6124	Source:	INT	Priority:	2
Name:	suppress patron name				
Description:	Ability to suppress patron name on all displays, on a per-system or per-patron basis. Patron may select option to display or mask patron name through patron account settings.				
	Related Reqs:		Related Process		

Req ID: 6121	Source: INT	Priority: 3
Name: external application monitoring		
Description: Ability to view and log system load placed by external applications using SIP2, NCIP2, Patron API, and other ports and APIs. Ability to isolate load per port, device or workstation, and/or transaction type.		
Related Reqs:		Related Process

Category: Automated Materials Handling

Req ID: 5010	Source: INT	Priority: 3
Name: integration with automated materials handling system		
Description: Full integration with Automated Materials Handling System (AMH) via SIP2/NCIP2, including ability to change all status types to checked-in status. Materials handling via SIP should result in exactly the same results as manual processes. SIP2 messages currently used by AMH include 09, 10, 11, 12, 17, 18, 63, and 64.		
Related Reqs:		Related Process

Req ID: 6152	Source: INT	Priority: 3
Name: batch check-in		
Description: System provides a batch check-in utility that can be accessed by external materials handling systems to manipulate batches of item records, change statuses in batch, etc.		
Related Reqs:		Related Process

Req ID: 6123	Source: INT	Priority: 3
Name: SIP2 emulator support		
Description: System supports 3M SIP2 emulator.		
Related Reqs:		Related Process

Category: Notifications

Req ID: 6122 **Source:** INT **Priority:** 3**Name:** notices engine

Description: System provides a single "notices engine" that defines conditions for sending notifications, generates data for all notification systems, receives feedback from all notification systems, and provides a single target for statistical queries related to notices. Each type of notice can have a configurable default notification method, can be configured to allow patrons to (or disallow patrons from) opting in or out of the notification, and can be configured to allow patrons to (or disallow patrons from) changing their preferred notification method.

Related Reqs: 1938 5111 521 **Related Process**

Req ID: 7121 **Source:** WEB **Priority:** 3**Name:** notification preferences

Description: Patrons can select notifications they would like to receive; specify one or more methods for receiving each type of notice; specify preferred frequency of notifications; and specify whether to receive repeat notices (e.g. receive hold pickup notices every day until hold is picked up or expired, or receive one hold pickup notice per item). See Requirements 1938, 5101, 5109, 5111, 5211, 5384, and 7229 for related requirements.

Related Reqs: **Related Process**

Req ID: 5224 **Source:** CIR **Priority:** 3**Name:** patron notification log

Description: Log all notices sent to patron, including patron barcode, date/time, notice type, delivery method (email, telephone, text, mail, direct communication), item record number, and success/error status. Provide a link from patron record to the log. Log can be printed from patron record.

Related Reqs: 5206 **Related Process**

Category: Telephone Notifications

Req ID: 6071 **Source:** INT **Priority:** 3

Name: telephone notices: definition

Description: System provides a telephone notification system, by which patrons receive automated telephone calls for specified events, e.g. courtesy notices, overdue notices, hold pickup notices. The telephone notification system supports multiple trunks.

Related Reqs: **Related Process**

Req ID: 6072 **Source:** INT **Priority:** 3

Name: telephone notices: features

Description: Telephone notification administrators set criteria for telephone notices; record spoken scripts; define variables such as branch names; and define schedule of calls including days, hours, and number of tries. Telephone notification system speaks patron name at beginning of call.

Related Reqs: 6071 **Related Process**

Req ID: 6075 **Source:** INT **Priority:** 2

Name: telephone notices: advanced features

Description: Telephone notification system provides patrons the ability to record their spoken names for use in future calls. System provides patrons an "opt-out" or "do-not-call" option.

Related Reqs: 6071 **Related Process**

Req ID: 5207 **Source:** CIR **Priority:** 3

Name: telephone notices schedules

Description: Ability to maintain separate telephone notice calling schedules for weekdays and weekends.

Related Reqs: 6071 **Related Process**

Req ID: 1637	Source: INT	Priority: 3
Name: telephone notices: call grouping		
Description: Telephone notifications are grouped, so that patrons receive a maximum of one call per notice type per day.		
Related Reqs: 6071		Related Process

Req ID: 6073	Source: INT	Priority: 2
Name: telephone notices: multiple phone numbers		
Description: Telephone notification system can use multiple phone numbers per patron.		
Related Reqs: 6071		Related Process

Req ID: 1638	Source: INT	Priority: 3
Name: telephone notices: prioritization		
Description: Telephone notifications can be prioritized by several criteria, including the type of notification; the number of notifications that will be included in a single call; and whether previous call attempts have failed. Call queue is prioritized prior to beginning the day's calls.		
Related Reqs: 6071		Related Process

Category: Telephone Renewal System

Req ID: 6051	Source: INT	Priority: 3
Name: telephone renewal system: definition		
Description: System supports incoming telephone renewal; requires patron to enter username or barcode, and password or personal identification number; provides titles of checked-out items in due-date order; allows patrons to skip to next title; allows patron to renew all items, or specific item by selecting a keypad command when the item is spoken by the system; allows patrons to return to beginning of list.		
Related Reqs:		Related Process

Req ID: 6053	Source: INT	Priority: 1
Name: telephone renewal system: speech recognition		
Description: System provides interface for a speech recognition system, for use in telephone renewals.		
Related Reqs: 6051		Related Process

Req ID: 6052	Source: INT	Priority: 1
Name: telephone renewal system: advanced features		
Description: System provides advanced options for telephone renewal system: ability to list holds, freeze or unfreeze all holds or a specific hold, and cancel a specific hold; ability to hear account balance and list fines and charges.		
Related Reqs: 6051		Related Process

Category: Text Notifications

Req ID: 6004	Source: INT	Priority: 3
Name: text messaging: definition		
Description: System supports management of text-message notifications. Patrons may select text messaging for courtesy (item due soon) notices, first overdue notices, hold pickup notices, and hold expiration notices.		
Related Reqs:		Related Process

Req ID: 6011	Source: INT	Priority: 3
Name: text messaging: message control		
Description: System sends one text message per item for each type of notice requested, by default. I.e., patron receives one courtesy reminder per item; one first overdue message per item; one hold pickup notice per item. (However, see REQ-7121 re patron preferences.)		
Related Reqs: 7121		Related Process

Req ID: 6005 **Source:** INT **Priority:** 1

Name: text messaging: advanced features

Description: System supports interactive text message processing. Patrons can register text-messaging device through patron account, and access account information by text messaging. For example, patrons can text keywords such as "checked out", "due soon", "overdue", "on hold", "hold shelf", "balance", "help", etc. and receive corresponding information by text message. Patrons can renew items and cancel holds by text message.

Related Reqs:

Related Process

Category: Mailing of Holds

Req ID: 6006 **Source:** INT **Priority:** 2

Name: mail delivery: definition

Description: Patrons can elect to receive held items by mail. Patrons specify a delivery address and a cost accrual limit.

Related Reqs:

Related Process

Req ID: 6007 **Source:** INT **Priority:** 2

Name: mail delivery: system settings

Description: System supports mail delivery of patron holds. Delivery charges can be set on a per item, per item format, and/or per package basis. Delivery charges can be differentiated by service area (e.g. delivery outside local service area has different costs than local delivery). System manages delivery charge accrual and can place patron blocks when delivery charges are overdue by X days or more (X configurable). System flags patron accounts with bad mailing addresses and does not attempt to mail to those patrons until address is reverified.

Related Reqs:

Related Process

Req ID: 6125 **Source:** INT **Priority:** 2

Name: mail delivery: over-limit

Description: When shipment costs reach the patron-specified limit, the system can be configured to either 1) send all of the day's remaining holds, and send subsequent holds to the holdshelf until the balance is paid down; or 2) send all remaining and subsequent holds to the holdshelf until the balance is paid down.

Related Reqs:

Related Process

Category: PC Management

Req ID: 6101 **Source:** INT **Priority:** 3

Name: public computer management: definition

Description: System supports external public computer management systems through SIP2, NCIP2, and/or a patron API. System provides access to patron barcode, record number, patron type, patron name, account balance, birthdate, telephone number, filtering level, expiration date, and patron blocks. System logs authentication to the patron record so that "last electronic use" field is up to date.

Related Reqs: 7001

Related Process

Category: Ecommerce

Req ID: 6008 **Source:** INT **Priority:** 3

Name: ecommerce: definition

Description: System interfaces with third-party ecommerce gateway providers and leading shopping cart software solutions and supports multiple forms of payment (e.g. Paypal, credit cards, electronic checks). Payment forms, if provided by the system, are customizable. System records and stores transaction number, patron record number, IP address, date/time stamp, configurable payment type, payment amount, transaction description, and transaction status (success/failure). System provides option to print and/or email a configurable transaction confirmation to patron, including the vendor transaction number and other payment details.

Related Reqs:

Related Process

Req ID: 5129	Source: CIR	Priority: 3
Name: credit card payments		
Description: Accept credit and debit card payments at accounts desks, self check-out stations, and through the public web interface. Payments should be visible in the patron account immediately, and related blocks should be removed immediately.		
Related Reqs:		Related Process

Req ID: 5128	Source: CIR	Priority: 3
Name: charge types		
Description: Ability to record charge type for every transaction. Charge types include Overdue, Replacement, Donation, Manual Charge, Copying, etc. Additional charge types can be configured.		
Related Reqs: 6008		Related Process

Req ID: 6010	Source: INT	Priority: 3
Name: ecommerce: patron interface		
Description: Payment interface should be identical, whether online or at a self-check station. Payment form should be staged ("Enter your billing address and click Next to continue...") and include mouse-tip help and full help links. Patrons can select one, several, or all items; see the payment due in each case; and make a payment in that amount.		
Related Reqs:		Related Process

Req ID: 1652	Source: INT	Priority: 3
Name: ecommerce error messages		
Description: The system is able to parse vendor error codes, in order to provide specific and user-friendly error messages.		
Related Reqs: 5216		Related Process

Req ID: 5401	Source: CIR	Priority: 3
Name: payment receipts		
Description: Payment receipts show date, branch and workstation, vendor transaction number, patron record number, patron name, form of payment, last four digits of credit card, fines/charges detail, payment amount, account balance. System provides multiple configurations for payment receipts (e.g. self-check station receipts may use a different paper size and layout). Ability to print a separate "lost and paid" receipt.		
Related Reqs:		Related Process

Req ID: 6009	Source: INT	Priority: 3
Name: ecommerce: reporting		
Description: System provides monthly reports showing vendor transaction number, date and time, form of payment, summary and detail of transactions. Transactions are categorized by transaction type (overdue fine payment, lost/damaged payment, donation, etc.), payment location (online, onsite) and station (public computer, self-check station, customer service desk, etc.).		
Related Reqs:		Related Process

Category: Collections

Req ID: 5121	Source: CIR	Priority: 3
Name: collections flagging		
Description: Flag patron record for Collections processing if account is greater than some configurable limit, and some configurable number of days have elapsed since sending of a billing notice. Eligibility limits may differ per patron type.		
Related Reqs:		Related Process

Req ID: 6081	Source: INT	Priority: 3
Name: collections processing		
Description: System exports patron records and recent transaction records in configurable format for processing by external collections vendor. Patrons with "no collections" flag are omitted. In the case of minors, parent/guardian information is included. System supports automatic delivery method for collections data (e.g. FTP, email). System supports test run of collections export without sending files.		
Related Reqs:		Related Process

Req ID: 5120	Source: CIR	Priority: 3
Name: remove fines-related block		
Description: Remove fine-related blocks (maximum fines block, collections block, etc.) immediately when charges are paid down to required threshold, whether payment is at customer service desk, at self check-out station, or online.		
Related Reqs:		Related Process

Req ID: 5119	Source: CIR	Priority: 3
Name: report: payment plans and collections		
Description: Generate report of patrons by home branch who have payment plans or suspended collections to assist staff in tracking and managing these accounts.		
Related Reqs:		Related Process

Category: Weeding

Req ID: 5901 **Source:** INT **Priority:** 3**Name:** item deletion utility

Description: System provides an item deletion utility that allows processing of large quantities of items. Items are scanned in succession with no intermediate keystrokes required. If the item cannot be deleted (see below), a visible and audible alert notifies staff member to put the item aside. When a batch of items have been scanned, the utility logs the items and deletes the item records. The utility logs the items that cannot be deleted, with the reasons, as follows: item is still checked out; item is needed to fill a hold; item is the last copy in the system. Criteria for refusing deletion can be added, modified, and deleted. Log file is stored on server.

Related Reqs:**Related Process**

Req ID: 2195 **Source:** ACQ **Priority:** 3**Name:** audit trail

Description: System creates a transaction log when records are updated or deleted during batch processes.

Related Reqs:**Related Process**

Req ID: 5902 **Source:** INT **Priority:** 3**Name:** deleted items history

Description: Deleted items remain accessible for reporting and statistical purposes for at least 13 months.

Related Reqs:**Related Process**

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