Angularizing Acquisitions
Report for MassLNC
April 30, 2018

MassLNC has contracted with Equinox Open Library Initiative for consultation services to plan development to convert Evergreen's acquisitions module to Angular for Evergreen's web staff client. This document is a report of the results of this project.

The quotes provided in this report are good for 14 (fourteen) days from the report date. If MassLNC is amenable to the quotes and sprints as laid out, we ask that they notify us within this 14-day period and we will draft Phase I Functional Specifications contracts for the sprints.

Sprints

One of the deliverables of the consulting project is to break the future development into a series of sprints. Each sprint is designed to provide a self-contained set of improvements. While ideally the goal is to deliver an Angular acquisitions interface within the course of a single release cycle, timing might dictate otherwise. Consequently, if an Evergreen feature cutoff deadline falls in the middle of the overall project, the sprints completed and accepted by the community by that deadline will result in an acquisitions interface that may mix both Angular and Dojo UIs, but will overall remain functional.

Another goal of the proposed sprint structure is to submit the results of each sprint to the community for review and merging as each sprint finishes being tested and accepted by the MassLNC development partners.

For both billing and development purposes, some groups of sprints can potentially be done in parallel as follows:

- Sprints 0*1*2
- Sprints 3*4
- Sprints 5*6*7*8*9
- Sprint 10

We propose the following set of sprints:
Sprint 0 -- Infrastructure and Tool-building

The goal of this sprint is to set the stage for all of the subsequent sprints.

- Currency calculation
  - We will settle on one approach for doing currency arithmetic in the client that avoids the use of floating point numbers and (if warranted by technical considerations) wrap it in an Angular service.
- New widgets
  - The egGrid widget will be extended to permit:
    - More server-side sorting options
    - Generic result filtering, allowing users to filter on any field displayed in a grid, matching functionality in the Dojo grid.
    - Adding a guarantee of not losing position in grid paging upon refreshing a single record.
  - Add combo box widgets that permit selecting values without being required to type them.
  - Cross browser-tab communication to allow action in one tab (e.g., a purchase order page) to refresh an origin tab (e.g., a PO search result list from which the former tab was opened.)

Sprint 1 -- Providers

In this sprint we will tackle provider management, adopting the patron record search and management UI as an inspiration. As relatively easy-to-add enhancements, we propose to add links to purchase orders and EDI messages from the provider management pages.

- Move Providers to Acquisitions menu
- New Provider management page
  - Filterable grid of providers
  - Adopt same idiom as patron management UI
  - Provider editing modal to include
    - Base provider record
    - Addresses
    - Contacts
    - Attribute Definitions
    - Holdings Subfield
    - EDI Accounts (moving out of Acquisitions Administration)
      - We will ensure there’s a direct route to EDI accounts
        - e.g., //provider/123/edi/1
  - Provider activity view including
    - Invoices
Sprint 2 -- Administration

In this sprint, we will convert all acquisitions administration interfaces to Angular. For some areas (currencies, funds, and claim policies), we propose to build unified interfaces rather than a separate page and grid for each underlying database table.

- **Currency Management**
  - Interfaces for Currency Types and Exchange Rates, as new unified page to manage both.
- **Fund Management**
  - Interfaces for Funding Sources, Fund Tags, and Funds, as a new unified page
    - Note that both funds and funding sources will continue to be linkable.
- **Claims Policy Management**
  - Interface for Claim Event Types, Claim Policies, Claim Policy Actions, and Claim Types, either as a new unified page or separate ones
- **Miscellaneous (one grid page each)**
  - Cancel Reasons
  - Distribution Formulas
  - Invoice Item Types
  - Invoice Payment Methods
  - Line Item Alerts
  - Line Item MARC Attribute Definitions
  - EDI Attribute Sets (which is already Angular)

Sprint 3 -- Acquisitions search

This will add a new unified search form for Acquisitions.

- Implement search form for purchase orders, selection lists, invoices, line items.
- When selecting results, by the end of this sprint the corresponding object will be opened in the Dojo interface. As new interfaces get created in subsequent sprints, that will change.

Sprint 4 -- PO and Line Item Manager

This will be the largest sprint in terms of time, as purchase order and line item management encompass creating and activating purchase orders, line items, and copies, applying distribution formulas, and handling receiving.

- Create Purchase Order
• Purchase order management
• Line item management and receiving

Sprint 5 -- Selection lists manager and brief record creation
This will build on the work done for the PO and line item interfaces to extend them to cover selection lists.

• Selection list management
• New Brief Record
• Load Catalog Record IDs

Sprint 6 -- MARC order management
This sprint will cover ingest of MARC records for acquisitions purposes, including MARC Federated Search and loading purchase orders from MARC records. UX decisions made in this sprint will likely influence any future work to convert Vandelay to Angular.

• MARC Federated Search
• Load MARC Order Records
  o Note that work done here might be applicable to future work to Angularize Vandelay.

Sprint 7 -- Patron Requests and EDI Messages
This will build on work in another project to enhance the patron request subsystem and Angularize the EDI message viewer.

• Patron Requests
• EDI Message viewer

Sprint 8 -- Invoice Management and Claims

• Create Invoices
• Open Invoices
• Claim-Ready Items

Sprint 9 -- Staff catalog integration
During this sprint, we will add links from the embedded catalog to acquisitions functions.
In Record Details page, add following actions
  o Add to Selection List
  o Add to Purchase Order
  o Create Purchase Order
  o View/Place Orders

Sprint 10 -- Bugfix and Polish
This sprint will be a catch-all, if needed, to handle bugs and cleanup tasks arising from the previous sprints. Note, however, that each previous sprint is intended to be self-contained, with any showstopper bugs handled within the applicable sprint.

Phase I estimates
The hours estimate for each sprint are listed in this table. For the purposes of preparing price quotes, Equinox would prefer to quote sprints 1-2, sprints 3-4, and sprints 5-9 separate. Sprint 10 would also be quoted separately, based on the number of significant issues identified by the end of sprint 9.

<table>
<thead>
<tr>
<th>Sprint</th>
<th>Hours</th>
<th>Cost NTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0: Infrastructure and Tool-building</td>
<td>12</td>
<td>$3,000</td>
</tr>
<tr>
<td>1: Providers</td>
<td>10</td>
<td>$2,500</td>
</tr>
<tr>
<td>2: Administration</td>
<td>10</td>
<td>$2,500</td>
</tr>
<tr>
<td>3: Acquisitions Search</td>
<td>20</td>
<td>$5,000</td>
</tr>
<tr>
<td>4: PO and Line Item Manager</td>
<td>20</td>
<td>$5,000</td>
</tr>
<tr>
<td>5: Selection lists manager and brief record creation</td>
<td>10</td>
<td>$2,500</td>
</tr>
<tr>
<td>6: MARC order management</td>
<td>10</td>
<td>$2,500</td>
</tr>
<tr>
<td>7: Patron Requests and EDI Management</td>
<td>10</td>
<td>$2,500</td>
</tr>
<tr>
<td>8: Invoice Management and Claims</td>
<td>10</td>
<td>$2,500</td>
</tr>
<tr>
<td>9: Staff catalog integration</td>
<td>6</td>
<td>$1,500</td>
</tr>
</tbody>
</table>
Mockups

Following are a series of mockups for some of the interfaces that we propose changing. Mockups are a visualization of possible development and do not construe or guarantee a particular interface outcome. We will work with MassLNC throughout the Phase I Functional Specifications process to refine existing mockups & create new ones as necessary.

Provider Search
New Provider
Provider Detail

Initech

Active: Yes
Provider Name: Initech
Provider Code: IT
Provider ID: 4
Currency: USD
Default Claim Policy: 
Default # Copies: 1
EDI Default: 
Owner: BR1
Primary Contact: Peter Gibbons
Prepayment Required: 
URL: 
SAN: 1234567
Provider Address
Provider Contact
Attribute Definitions
Holdings Definitions

![Image of Evergreen Staff Acquisitions interface]

<table>
<thead>
<tr>
<th></th>
<th>MARC Tag</th>
<th>Subfield</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>949</td>
<td>b</td>
<td>barcode</td>
</tr>
<tr>
<td>2</td>
<td>949</td>
<td>n</td>
<td>call_number</td>
</tr>
<tr>
<td>3</td>
<td>949</td>
<td>m</td>
<td>circ_modifier</td>
</tr>
</tbody>
</table>

**Provider:** Initech

**MARC Tag:**

- Estimated Price Owning Library (etc.)

**Actions:**
- Delete Selected

**Columns:**
- as shown
EDI

Providers

Initech

Label
Host
Username
Password
Account
Owner

Path
Incoming Directory
Vendor Account #
Vendor Assigned Code
EDF Attribute Set
Use EDI Attributes

Columns: as shown
Actions:
Delete Selected
View EDI Messages

Save Changes
Clear Form

View EDI Messages

Read tooltips to provide the information from XUL:

Host is the full FTP/SSH hostname, including the protocol, e.g. ftp://ftp1.somvendor.com

Username, Password and Account are (s)FTP/SSH parameters.

Account is unlikely to be used by modern systems and should typically be empty.

Vendor Account Number (VAN) is vendor-assigned, only needed if different than the org_unit SAN.

Vendor Assigned Code (VAC) is essentially a sub-account designation, e.g. "0001". It can be used with or without VAN. The location of codes in the EDI message itself may vary according to vendor-specific semantics.
EDI Messages
# Invoices

![Invoice screenshot](https://webbyevergreencatalog.com/eg/staff/admin/acq/provider/4/invoices)

### Providers

<table>
<thead>
<tr>
<th>Provider</th>
<th>Provider Address</th>
<th>Provider Contact</th>
<th>Attribute Definitions</th>
<th>Holdings Definitions</th>
<th>Invoices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Filter**: New multi-filter widget for Angular

### Vendor Invoice Table

| Vendor Invoice ID | Receiver | Shipper | Complete? | Invoice Date | Invoice Type | Note | Payment Auth | Payment Method | Receive Method |
|-------------------|----------|---------|-----------|--------------|--------------|------|--------------|----------------|                |
| 1                 |          |         |           |              |              |      |              |                |                |
| 4                 |          |         |           |              |              |      |              |                |                |
| 5                 |          |         |           |              |              |      |              |                |                |
| 6                 |          |         |           |              |              |      |              |                |                |

*Invoice ID is clickable to receive invoice (open in new browser tab)*

*Columns: as shown  
Actions: none.*
Purchase Orders
Funds
Fund Details – Summary

[Diagram of a user interface showing fund details and options to create allocations and transfer money.]
Fund Details – Allocations
Fund Details – Debits

Vendor Invoice ID will display instead of Invoice Entry ID (if available). Either will link to the appropriate invoice in a new browser tab.

Links to invoice (open in a new browser tab)
Fund Details – Tags
Fund Propagation and Rollover

Propagate Funds creates new funds for the next fiscal year. Propagating funds will not affect the money or encumbrances in the funds. Only funds that have the Propagate setting enabled will be affected.

Perform Fiscal Year Close-out moves encumbrances to the corresponding fund for the next fiscal year and deactivates funds for the selected fiscal year. If funds have the Rollover setting enabled, all unspent money will also be moved to the corresponding fund for the next fiscal year.

Limit Fiscal Year Close-out to Encumbrances (currently this option only displays if the Lib Setting "Allow funds to be rolled over without bringing the money along" is set to True.) This option will limit the Perform Fiscal Year Close-out procedure to only move encumbrances to the corresponding fund for the next fiscal year. Any unspent money in the funds will not rollover.

Dry Run
Select Dry Run to see a preview of the changes that would occur based on the selected actions. Data will not be changed when Dry Run is selected.
Funding Sources
Funding Source Details – Credits

![Funding Source: LSTA](image)

<table>
<thead>
<tr>
<th>#</th>
<th>Amount</th>
<th>Effective Date</th>
<th>Deadline Date</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10000.00</td>
<td>4/4/18 10:25am</td>
<td></td>
<td>note text</td>
</tr>
</tbody>
</table>

Can set default view for tabs
Funding Source Details – Allocations

- Fund Details
- Summary (open in new browser tab)
- Note: Transfer from fund BR1 AFIC 2018

The auto-generated note text will include owning OU, fund code, and year.
Fund Tags
Exchange Rates

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