Routing Rules!

Agenda

- System Routing
  - Basic Concepts
  - Match Strings
  - Commonly Used
- Email Routing
  - Basic Concepts
  - Commonly Used

At the end of the session, you should understand the ***purpose of automated routing*** and have the ability to ***create a basic custom routing rule and an email routing*** for your local needs.

System Routing

What Is It?

- Allows the ILLiad system to do routine processing
- Automatically updates requests from one status to another based on your designed parameters
- Set variables for routing based on database fields
  - Such as Faculty Status, Request Type, Citation Information, Transaction Status etc.
  - Can combine
- Create more efficient workflow by adding or skipping steps
- Not Routing as manually from Request form or Queue list

Some practical uses for routing

- Routing Distance Education student requests for special processing
- Routing Document Delivery requests from Borrowing to Document Delivery module
- Routing requests for specific document types to special queues
- Skipping print jobs for libraries with certain values in the Lender Address record

How do they Work?

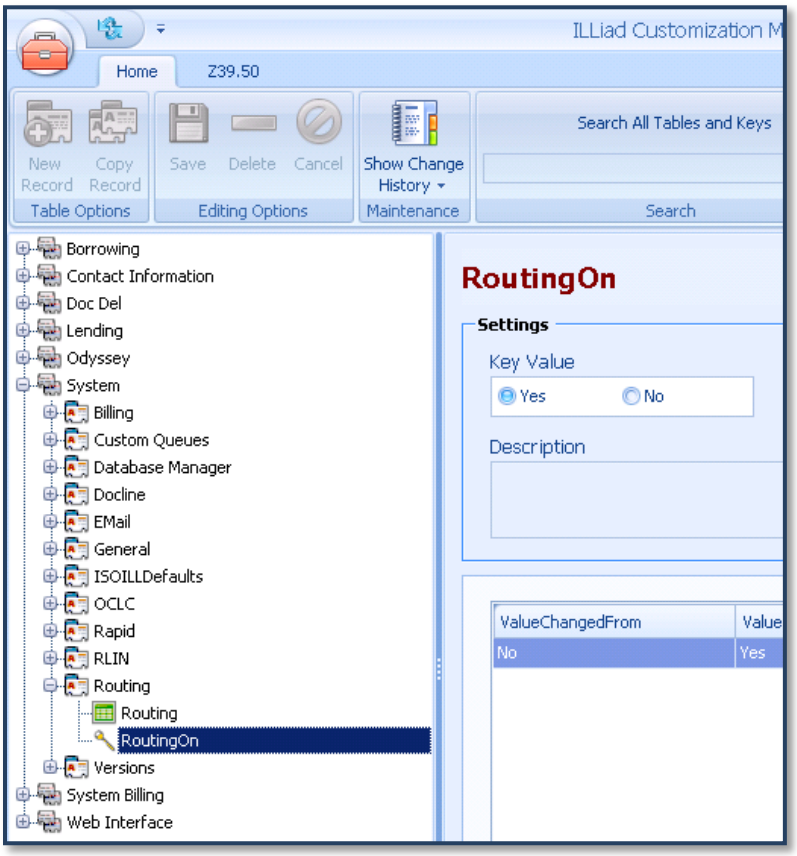
- Every update runs a SQL query
  - Request data is compared to “filter” in routing rule
  - First part of Routing Rule
- Match YES
  - Request auto-updated to new status
  - Second part of Routing Rule
- Match NO
  - Request moves to typical update status

Flip the Switch

Customization Manager Key RoutingOn should be set to Yes

System → Routing → RoutingOn

Customization Manager—Activate Routing



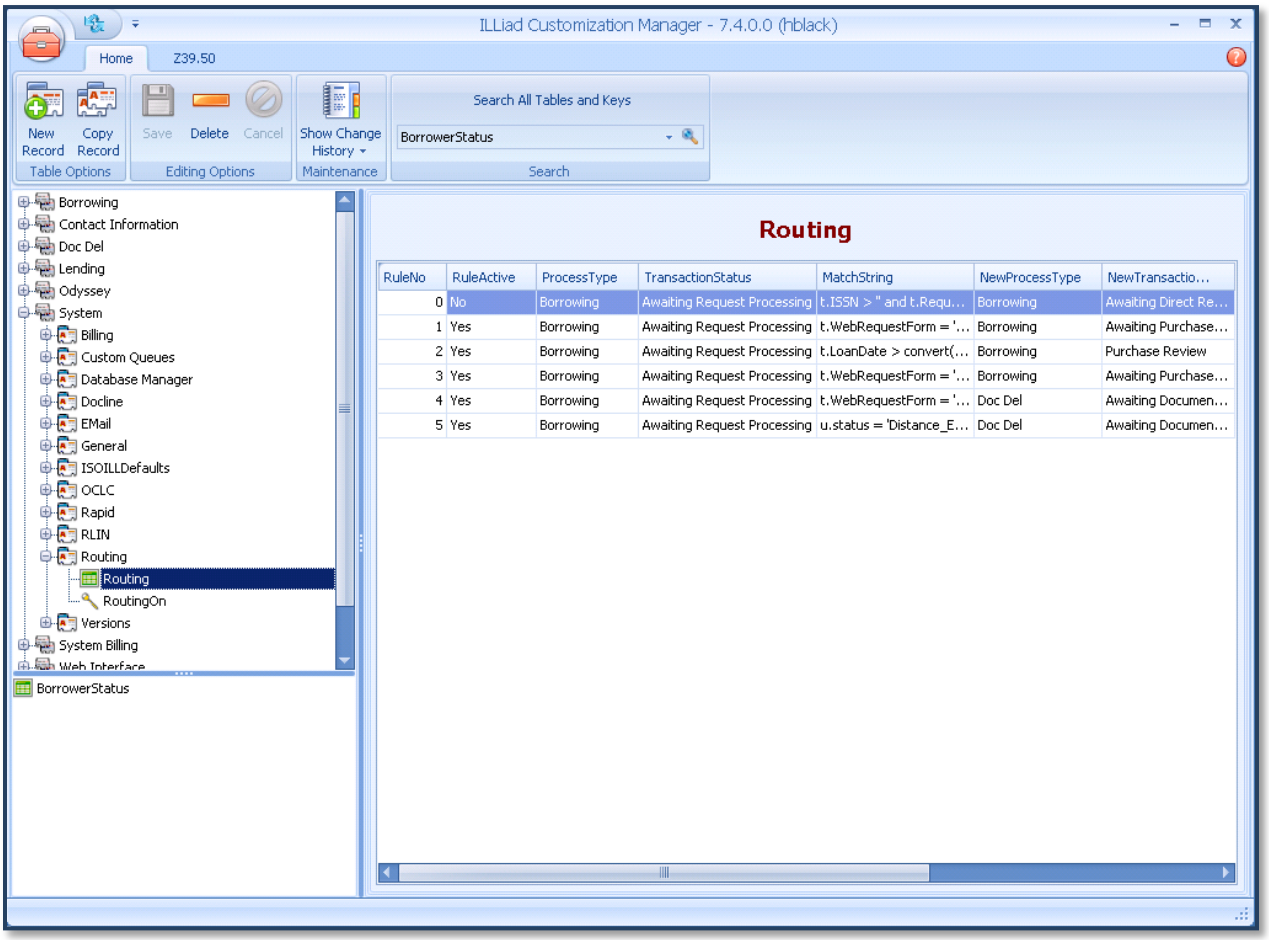
Routing Table

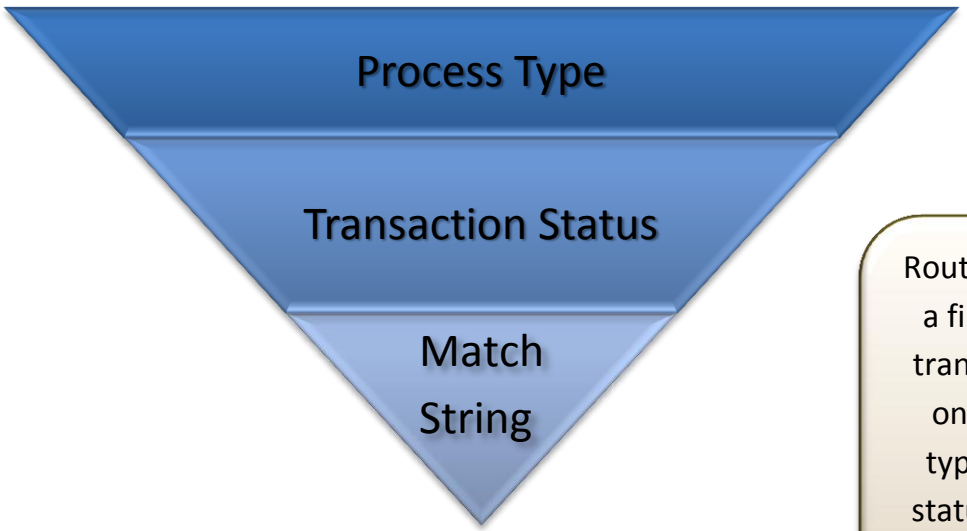
- Routing rules should be created so that no two routing rules apply to the same transaction at the same time
  - i.e. ProcessType, TransactionStatus, and MatchString values, taken collectively, should be unique for each rule in the table.
- Daisy-chaining of routing rules does not work

Routing Table Components

- Rule Number
- Rule Active
- Process Type
- Transaction Status
- Match String
- New Process Type
- New Transaction Status
- Rule Description

Customization Manager—Routing Table





Routing rules create a filter to identify transactions based on their process type, transaction status and a match string.

Rule Number

- RuleNo
- Unique rule number that you assign to the rule
- First rule that applies to a given transaction based on the rule definition is applied to the transaction.
    - In other words, the rules are applied in numerical order as a transaction meets conditions defined in each rule

Rule Active

- RuleActive
- Set to 'Yes' or 'No' to activate or deactivate
- A rule with a value of 'No' will be ignored by the system

Process Type

- ProcessType
- This specifies the ProcessType to which a given rule applies
- Rule applied when transaction has matching ProcessType value
- Three options
  > Borrowing > Lending > Document Delivery

Transaction Status

- TransactionStatus
- Specifies the TransactionStatus to which a given rule applies
- Rule applied when transaction has matching TransactionStatus value
- Any legitimate ILLiad status, including any existing Custom Queues
    - Examples = Awaiting Copyright Clearance, Awaiting Stacks Searching, Awaiting Shipping Label Printing

Match String

- MatchString
- Essential for effective processing
- Completes query string to create a match for transaction and allow application of rule
- Routing rules checked each time the status of a transaction changes to determine if any active routing rules should be applied to that transaction
- Sets the conditions that distinguish one routing rule from another

New Process Type

- NewProcessType
- Specifies the new process type to which the transaction will be routed when the rule is applied.
- Does not need to change
- Only between between Borrowing and Doc Del
- Lending transactions cannot change ProcessType

New Transaction Status

- Specifies the new Transaction Status to which the transaction will be routed when the rule is applied
- May be any legitimate ILLiad status, including any existing Custom Queue

Rule Description

- Describes the action of the rule
- Helpful when multiple rules exist
- Assists others who did not create the rule

Match String: Nitty Gritty Details

The query used to apply routing rules is as follows:
SELECT * from Transactions T, Users U where t.Username=u.Username and t.TransactionNumber=<TransactionNumber> and <Matchstring>
In the above query, the value <TransactionNumber> is replaced by the actual TransactionNumber value of the transaction being processed. Likewise, the value <MatchString> is replaced by the actual MatchString value for each routing rule in turn. Each time the status of a transaction is changed by the ILLiad client, the system also runs a query to cycle through any rules that exist in the routing table and determine if any active routing rules should be applied to that transaction. When the system runs this query, it attaches the MatchString value for each active routing rule to the end of the query to determie what rule, if any, should be applied to each transaction at that time.

Bottom Line

- Match String is added to an existing query which is run automatically every time a request is updated
- The 2 parts of the query together with other parameters in the routing rule create a filter to determine whether or not to apply your routing rule to the transaction being updated

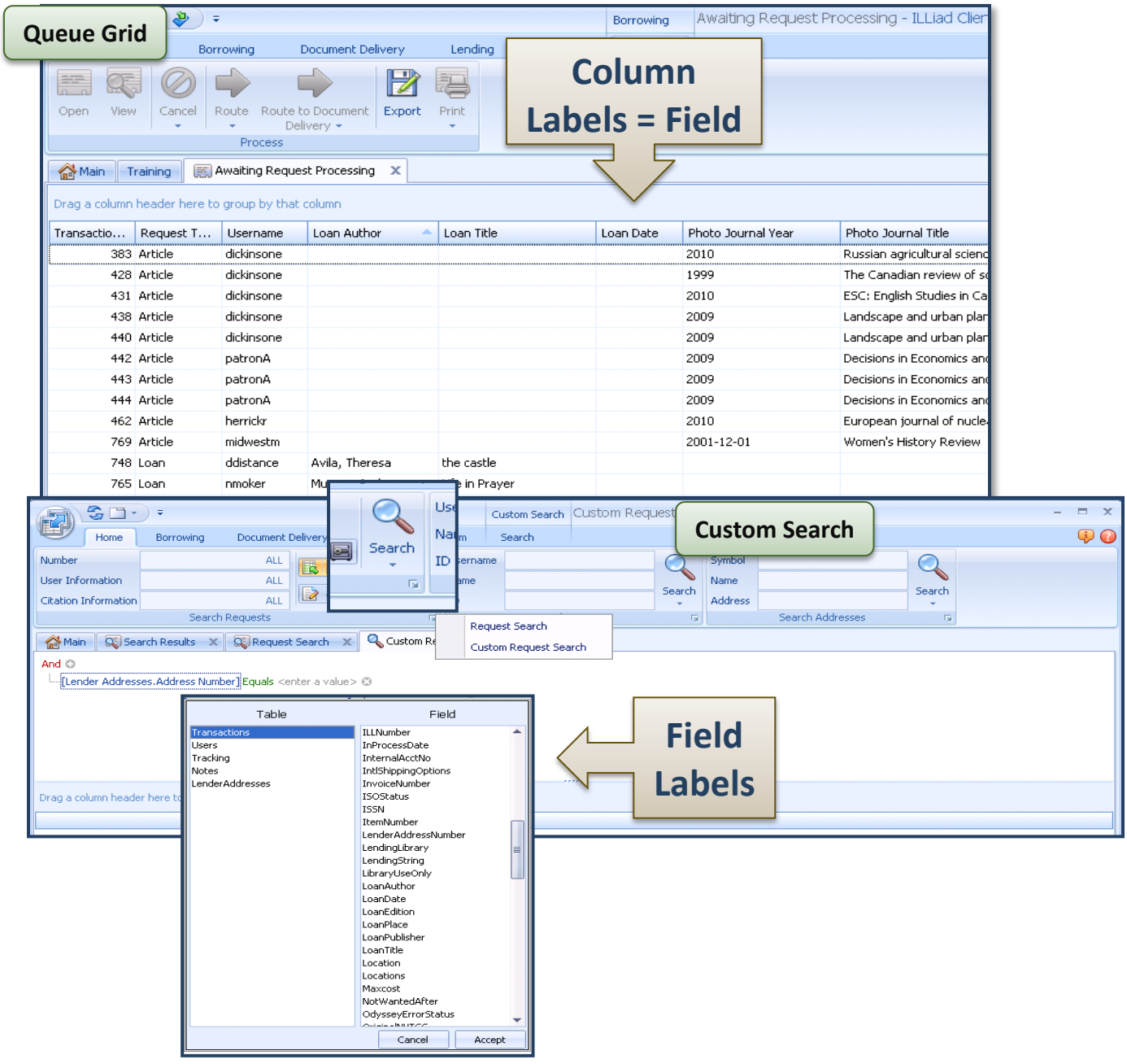
Match String

- Built from fields in ILLiad tables where request data is housed
- Tables/fields available for use in the match string
    - Lending
        - Transactions
        - LenderAddresses/LenderAddressesALL
    - Borrowing
        - Transactions
        - Users/UsersALL

Match String Components

1) Table Field
2) Value Limit
    - Language (not quite SQL query) that targets values or content in that field
    - Example
        - u.Username = dickinsone
        - Targets User Table where the Username is dickinsone
    - Locate field labels names in custom search or queue list grid

Queue List Grid and Custom Search to Locate Field Labels



Match String Syntax

- Transactions Table
  - Syntax = t.fieldname
  - Example = t.TransactionNumber
- LenderAddresses Table
  - Syntax = l.fieldname
  - Example = l.LenderString
- Users Table
  - Syntax = u.fieldname
  - Example = u.Status
- Single quotes should be used around alpha character criteria
  - t.RequestType = 'Article'
- <> means not equal to
  - l.ArielAddress <> '' (two single quotes)
- LIKE % wildcard
  - u.Status LIKE '%Faculty%' matches VisitingFaculty and FacultyNew
- Checking for blanks or nulls
  - (t.LendingString = '' or t.LendingString is NULL)
  - (l.ArielAddress is not NULL and l.ArielAddress<> '')

Attend to Request Type

- Be aware of default workflow processes that may affect request types in different ways
- You may need to make 2 rules
  - Example in Borrowing
    - One for Articles starting at Awaiting Copyright Clearance
      - u.Status = 'Faculty' and t.RequestType = 'Article'
    - One for Loans starting at Awaiting Request Processing
      - u.Status = 'Faculty' and t.RequestType = 'Loan'

Routing Rules & Shared Servers

- Extra care needs to be taken when adding routing rules on a shared server. The routing table is a shared table and a rule can potentially affect all sites.
- Make sure to add your site code as part of the matchstring:
  - u.NVTGC = 'ABC'
  - u.NVTGC in ('ABC','XYZ')

Examples

Route Faculty Requests to Dedicated Processing Queue

Field Name	Entry
RuleNo	1
RuleActive	Yes
ProcessType	Borrowing
TransactionStatus	Awaiting Request Processing
MatchString	u.Status = 'Faculty'
NewProcessType	Borrowing
NewTransactionStatus	Awaiting Faculty Processing
Rule Description	Requests from Faculty status patrons moved to Awaiting Faculty Processing Queue

Bypass Copyright Clearance for Older Articles

Field Name	Entry
RuleNo	2
RuleActive	Yes
ProcessType	Borrowing
TransactionStatus	Awaiting Copyright Clearance
MatchString	t.PhotoJournalYear<'2005' OR t.PhotoJournalYear< convert(varchar(4), (datepart(year, getdate())-5))
NewProcessType	Borrowing
NewTransactionStatus	Awaiting Request Processing
Rule Description	Article requests older than 5 years moved directly to Awaiting Request Processing Queue

Cancelled by Customer to Cancelled by ILL Staff

Field Name	Entry
RuleNo	3
RuleActive	Yes
ProcessType	Borrowing
TransactionStatus	Cancelled by Customer
MatchString	t.ILLNumber is NULL
NewProcessType	Borrowing
NewTransactionStatus	Cancelled by Staff
Rule Description	Moves requests Cancelled by Patron to Cancelled by Staff status if cancelled prior to being processed in OCLC

Skip Shipping Label Printing for Ariel Article Delivery

Field Name	Entry
RuleNo	3
RuleActive	Yes
ProcessType	Lending
TransactionStatus	Awaiting Shipping Label Printing
MatchString	t.RequestType = 'Article' and t.Ariel = 'Yes' and (l.ArielAddress is not NULL and l.ArielAddress <>'')
NewProcessType	Lending
NewTransactionStatus	Request Finished
Rule Description	Skips Shipping Label Printing for Ariel Transactions with Ariel Address in Lender Address

Routing Rule Troubleshooting

- Test, test and test again
- Mutually exclusive rules
- Daisy Chaining
- Tracking Table
- Typos
- Circular Routing
- Trying to manually change status of item back to where it started from and then the routing rule kicks in again.

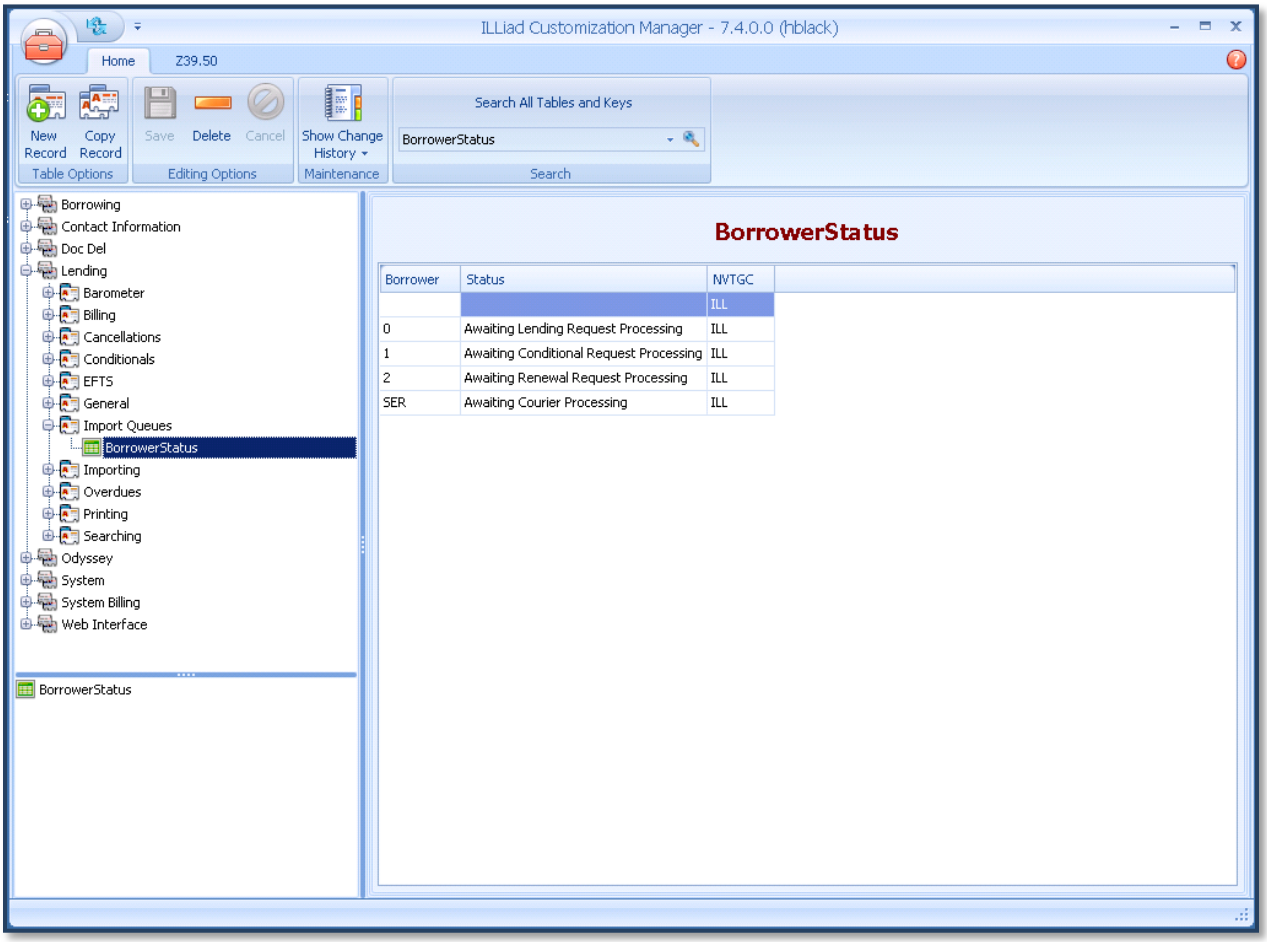
Caveats

- Applying to more than one rule to a request
- Process types
- Borrowing → Doc Del or Doc Del → Borrowing
- Lending → Lending only
- Match string is limited to 225 characters

Lending Routing with BorrowerStatus Table

- Requests can be automatically routed into queues based on their OCLC or Docline symbol
- Will route to new queue when request is imported
- Create record for each Lender symbol in the BorrowerStatus table and assign to desired queue
- Symbols not in this table go to the default ‘Awaiting Lending Request Processing’ queue

BorrowerStatus Table



Email Routing

Email Routing Purpose

- Process to Create Custom Emails merging request data with other content
- Usually to contact customer but can also send to others at your library
- Accessible from the Email menu in the ILLiad Client
- Updates status simultaneously

Email Routing Uses

- Internal Communications and Workflow
    - Acquisitions Review
    - Remote Storage or Special Collections Calls
- Patron Communications
    - Recalls
    - Materials Requested Locally Held
    - Problematic Citation

Email Routing Set Up

1. Create the Email Template(s)
2. Create routing option in the EmailRouting table of the Customization Manager
    - System → Email → EmailRouting

Create the Email Template

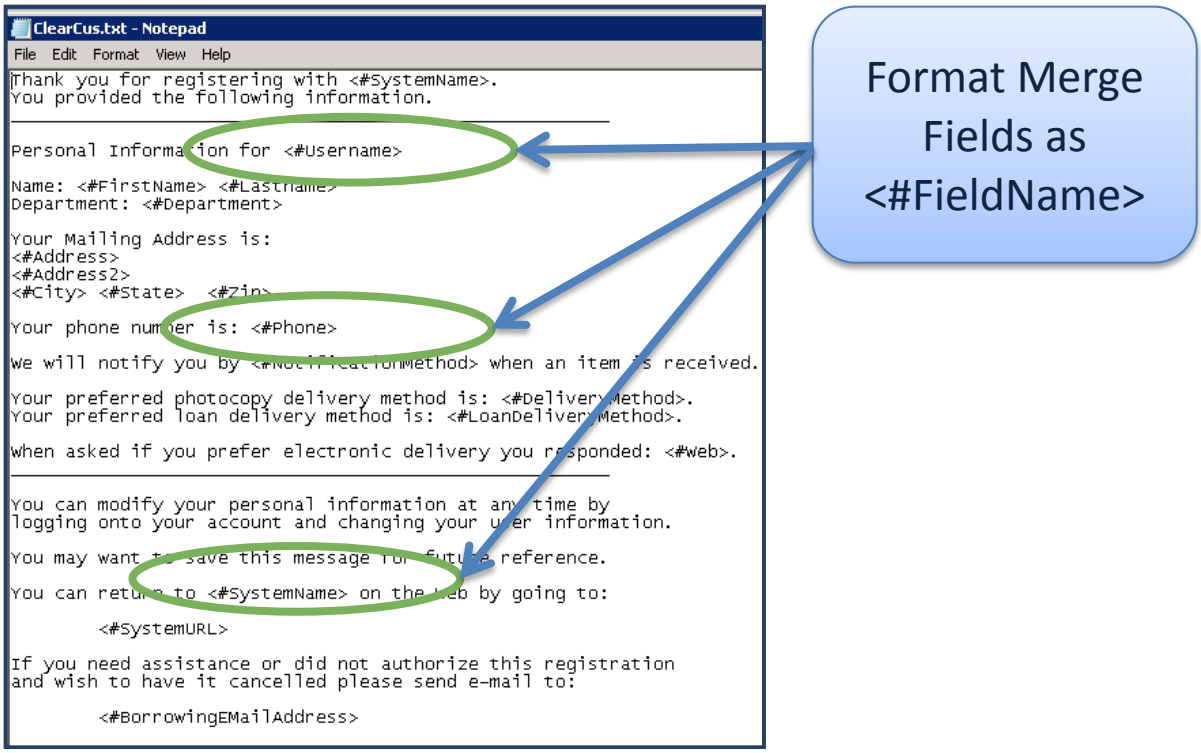
- Locate email files
    - Designated in Customization Manager
        - System → EMail → EMailLocation
    - Most likely locations
        - ILLiad 8.0 and earlier (original installation)
            - c:\illiad\Email
        - ILLiad 8.1 (original installation
            - c:\ProgramFiles\illiad\Email
            - c:\ProgramFiles(86)\illiad\Email
    - May be saved on a common network file
- Create new .txt file in any text editor with desired content
    - Suggestion: Start with copy of a current email template and modify

Add merge fields using SQL Table Field name (see **Queue List Grid and Custom Search to Locate Field Labels** above for help identifying Table Field names)

- Format as <#FieldName>
- For common field names
    - See ILLiad Database table
    - Use Custom Search feature and display field list
    - View other Email templates

- ***Note the following exception for formatting email merge fields***
- For data from the LenderAddresses table
    - <#LenderAddress*FIELDNAME*>
    - Example: to include the Borrowing Library's Name in an email
        - <#LenderAddressLibraryName>
- Save to folder as indicated in Customization Manager

Create Email Content



Create Routing Option in Email Routing Table

- Customization Manager → System → Email → EmailRouting
- Table Values
    - Process Type
    - Name
    - DefaultToAddress
    - DefaultToName
    - DefaultCCAddress
    - Default Subject
    - DefaultFromAddress
    - DefaultFromName
    - FileNameLoan
    - FileNameArticle
    - NVTGC

Email Routing Table Fields

Process Type

- This specifies what "module" is to be affected by the entry.
- This will always be one of the following values
  >Borrowing >Doc Del >Lending

Name

- This names the email option.
  - This is the value that will be displayed in the Email dropdown menu to be selected.

DefaultToAddress

- This specifies where the email will be sent.
- If you leave this blank, the email will go to the customer who placed the request for a given transaction.
- If you specify an address here, the email will always go to that address.

DefaultToName

- This allows you to specify the email greeting as a variable if you wish.
- Generally if sent to the same person every time
- For example, emails sent to a remote storage facility, reference librarian, or special collections librarian

DefaultCCAddress

- This allows you to copy a second email address on the sent emails if you wish.

DefaultSubject

- This specifies the subject line of the email.

DefaultFromAddress

- This specifies the address from which the email will originate.

DefaultFromName

- This specifies the From Name value of the email.

DefaultStatus

- This tells the system what to do with the transaction after the email is sent.
  - If left blank, the transaction will not change status.
  - If specified, the status of the transaction will change to the specified value.

FileNameLoan

- Specifies the filename of the email template that will be used by this option if the transaction is a Loan.
    - The same template may be used by multiple rules.
    - As with all other email templates, the system will look for this template wherever the EMailLocation key specifies.

FileNameArticle

- Specifies the filename of the email template that will be used by this option if the transaction is an Article.
- If there is a reason to make this template different, you may do so

NVTGC
Short version is . . .

- For Single-Site ILLiad systems, use **ILL**
- For Multi-Site ILLiad systems, use your site's **site code**.

Examples

Borrowing Loan—Recall from Patron

Field Name	Entry
ProcessType	Borrowing
Name	Loan Recall
DefaultToAddress	
DefaultToName	
DefaultCCAddress	
DefaultSubject	Notice of Recalled Item
DefaultFromAddress	ILL@library.edu
DefaultFromName	Interlibrary Loan Staff
DefaultStatus	Loans Recalled from Patrons
FileNameLoan	recall.txt
FileNameArticle	recall.txt

Borrowing—Send ALA Request via Email

Field Name	Entry
ProcessType	Borrowing
Name	ALA Request
DefaultToAddress	xxxx@xxxxx.xxx
DefaultToName	
DefaultCCAddress	
DefaultSubject	Interlibrary Loan Request
DefaultFromAddress	ill@atlas-sys.com
DefaultFromName	Atlas ILL Department
DefaultStatus	Request Sent
FileNameLoan	alaemail.txt
FileNameArticle	alaemail.txt

Borrowing Article—Full-Text Available

Field Name	Entry
ProcessType	Borrowing
Name	Full Text Available in Local Collection
DefaultToAddress	
DefaultToName	
DefaultCCAddress	
DefaultSubject	Article Available in Library Collection
DefaultFromAddress	ill@atlas-sys.com
DefaultFromName	ILL Delivery Service
DefaultStatus	Delivered to Web
FileNameLoan	fulltextavaible.txt
FileNameArticle	fulltextavaible.txt

Designed to be used in conjunction with posting article to web and accessible through ILLiad. Could be modified to insert a URL instead.

Lending—Request Item from Remote Storage

Field Name	Entry
ProcessType	Lending
Name	Send Request to Remote Storage
DefaultToAddress	jsmith@library.edu
DefaultToName	Joe Bobby Smith
DefaultCCAddress	
DefaultSubject	Request Call: Interlibrary Loan

DefaultFromAddress	ILL@library.edu
DefaultFromName	Interlibrary Loan Staff
DefaultStatus	Awaiting Arrival from Remote Storage
FileNameLoan	branchloan.txt
FileNameArticle	branchart.txt

Lending—Request for Reciprocal Agreement

Field Name	Entry
ProcessType	Lending
Name	Reciprocal Request
DefaultToAddress	<#LenderAddressEmailAddress>
DefaultToName	
DefaultCCAddress	
DefaultSubject	Request for Reciprocal Agreement
DefaultFromAddress	ill@atlas-sys.com
DefaultFromName	Atlas ILL Dept.
DefaultStatus	
FileNameLoan	reciprocal.txt
FileNameArticle	reciprocal.txt

System & Email Routing
E-Resource Delivery with OCLC's Article Exchange

Implementation

- Install and configure OCLC Article Exchange Addon
  See ILLiad Addons Documentation for necessary files and installation instructions
  https://prometheus.atlas-sys.com/display/ILLiadAddons/ILLiad+Addons
- Email Routing
  - Create Email Template (Sample below)
  - Create Email Routing (Sample below)
- System Routing
  - Create System Routing to Skip **Awaiting Shipping Label Printing** for non-Odyssey Libraries (Sample Below)
- Customize display of Update Stacks Search Screen
  - From **Lending** ribbon, click **Update Stacks Search** option
  - Be sure **In Stacks Searching Only** button is active (highlighted yellow)
  - Click **Search**

- All requests in **In Stacks Search** status will display
- Scroll to right to find **Call Number** column
- Right-click on column header to view customization menu
  - Choose **Remove Column**
- Scroll back to left to view initial display
- Right-click on column header to view customization menu
  - Choose **Column Chooser** option
  - New window will display with **Call Number** as option
  - Click and Drag **Call Number** heading back into the grid heading in initial display

Workflow

- Search for item in E-Resource discovery system (possibly as an Addon in the request)
  - Save the pdf to a folder with TN.pdf as file name
- Open OCLC Article Exchange Addon
  - Browse to saved article and click Drop File
  - URL and password will be saved to Call number and Location fields
  - Request will return to Detail tab
- Click **Send Email** from Request Ribbon
  - Choose **Article Exchange** option
  - Click **Send**
  - Request updated to **In Stacks Searching** status
- From **Lending** ribbon, click **Update Stacks Search** option
  - Be sure **In Stacks Searching Only** button is active (highlighted yellow)
  - Click **Search**
  - All requests in **In Stacks Search** status will display
  - Sort by **Call Number** to identify those with ***http:// . . .*** in call number field
  - Select request delivered via Article Exchange
  - Click **Mark Found**
  - OCLC request updated to *Shipped* and ILLiad request updated to **Request Finished**

Email Routing Template Sample
Dear ILL Librarian: <#ESPShipTo>,

An article that you requested:
Title: <#PhotoArticleTitle>
Author: <#PhotoArticleAuthor>
Journal: <#PhotoJournalTitle>
Citation: <#PhotoJournalVolume> <#PhotoJournalIssue> <#PhotoJournalMonth> <#PhotoJournalYear> <#PhotoJournalInclusivePages>

OCLC ILL: <#ILLNumber>
is now available for download.

Click here to download your article:
URL: <#CallNumber>
User Name: Library
Password: <#Location>

Once a file has been retrieved, it remains available for 5 days. After 5 days, the file will be removed. A file can be picked up a maximum of three times for each URL/password combination. Files not retrieved remain available for 30 days.

Please contact us if you have questions regarding our request. When contacting us, please have the ILL Number <#ILLNumber> available.

Interlibrary Loan - Lending office hours are <#LendingHours>. Questions and comments may be directed to <#LendingEmailAddress> or <#LendingPhone>.

Sincerely,
<#LendingContactName> <#OCLCSymbol>
<#LendingEMailAddress>
<#LendingPhone>

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******

Email Routing in Customization Manager (E-Resource Delivery with OCLC's Article Exchange)

Field Name	Entry
ProcessType	Lending
Name	Article Exchange
DefaultToAddress	<#LenderAddressessBorrowingDepartmentEmail>
DefaultToName	
DefaultCCAddress	
DefaultSubject	Interlibrary Loan <#ILLNumber> Delivery
DefaultFromAddress	ill@atlas-sys.com
DefaultFromName	Atlas ILL Dept.
DefaultStatus	In Stacks Searching
FileNameLoan	eresourcelend.txt
FileNameArticle	eresourcelend.txt

System Routing Rule (E-Resource Delivery with OCLC's Article Exchange)

Field Name	Entry
RuleNo	[next available]
RuleActive	Yes
ProcessType	Lending
TransactionStatus	Awaiting Shipping Label Printing
MatchString	t.CallNumber like 'http%'
NewProcessType	Lending
NewTransactionStatus	Request Finished
Rule Description	Skips Shipping Label Printing for Article non-Odyssey libraries

Routing Rules!

Helpful Links

System Routing—i.e. Routing Rules

◊ https://prometheus.atlas-sys.com/display/illiad/System+Routing+%28Routing+Rules%29

Archived Newsletter Articles—System Routing

Articles on routing rules by Kevin Ford are included as separate pdf documents, scroll through newsletter to find column

Basics

◊ Winter2006

MatchString Strikes Back…

◊ Spring2006

Routing Rules pt. III – Compound Routing Rules

◊ Summer2006

Email Routing

◊ https://prometheus.atlas-sys.com/display/ILLiad/Customizing+Emails

Suggested Routing Rules & Email Routing—Borrowing

◊ http://toolkit.idsproject.org/doku.php?id=borrowing:routing

◊ http://toolkit.idsproject.org/doku.php?id=borrowing:emailrouting

◊ http://www.atlas-sys.com/Conference2011/Presentations/ILLiadRoutingRules.pdf

Suggested Routing Rules & Email Routing —Lending

◊ http://toolkit.idsproject.org/doku.php?id=lending:routing

◊ http://toolkit.idsproject.org/doku.php?id=lending:emailrouting