What to Do When They Say “It Doesn’t Work”

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System = Support Needs

• If you build it, they will come
• And they will need support
• Bugs are inevitable
• So are users who don’t know how to do something
• How to tell the difference?
• And what do you do about it?
Information Gathering

- To solve a problem, you have to diagnose and replicate it
- To diagnose and replicate, you need details from the user
- To get details, you have to train your users to give specifics about the problem
Who and What

• Who is reporting the error? Staff or patron?
• Is that person well trained and experienced in the system?
• What was the person doing?
• What patron record, item record, etc.? 
• Can you replicate the problem?
• Does it happen for all users/transactions?
When

• When did the problem occur?
• Any known network or server issues at that time?
• Does the action depend on a cron job, like the holds queue?
• Is it a response time issue (very large query)?
• Was the system code recently upgraded? If so, did this action work before the upgrade?
Where/How and Why

• Was the user in staff or OPAC?
• What screen? Which module?
• Get screenshots; copy and paste any error messages
• Can you replicate?
• What was the user trying to accomplish?
• State the goal – the user might be going about it the wrong way
Education

• Provide enough training up front for staff
• Provide good documentation
• Develop your own FAQ over time
• Give patrons help screens and tips in OPAC
• When you solve a problem, give details – why did the problem happen and how can it be avoided next time?
Reporting Bugs

• Learn the code structure so you can backtrack a problem if necessary

• Search the bugs database at http://bugs.koha-community.org/bugzilla3/ and report bugs if needed

• Create a patch if you can -- http://wiki.koha-community.org/wiki/SubmittingAPatch

• Sign off on patches if you can -- http://wiki.koha-community.org/wiki/Sign_off_on_patches
Common Problems

- Scenarios for
  - Checking out or placing holds
  - Searching
  - Notices
  - Fines
  - Reports
Checkout/Hold Blocked

• Need exact patron and item ID
• What is CircControl syspref set to? That determines which circ rules apply
• Check applicable circ rules – is there one allowing that patron/item combination?
• Will the action work with another patron or item?
• Also check for other settings, such as on-shelf holds allowed or limits for amount owed
Limited Circ Rule

<table>
<thead>
<tr>
<th>Patron category</th>
<th>Item type</th>
<th>Current checkouts allowed</th>
<th>Loan period</th>
<th>Unit</th>
<th>Hard due date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Juvenile</td>
<td>All</td>
<td>10</td>
<td>14</td>
<td>days</td>
<td>None defined</td>
</tr>
<tr>
<td>All</td>
<td>All</td>
<td>Unlimited</td>
<td>14</td>
<td>days</td>
<td>None defined</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fine amount</th>
<th>Fine charging interval</th>
<th>Fine grace period (day)</th>
<th>Suspension in days (day)</th>
<th>Renewals allowed (count)</th>
<th>Holds allowed (count)</th>
<th>Rental discount (%)</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>0.000000</td>
<td>Delete</td>
</tr>
<tr>
<td>0.25</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>50</td>
<td>0.000000</td>
<td>Delete</td>
</tr>
</tbody>
</table>
Useful screen error messages (OPAC)

- **Sad message**: Sorry, none of these items can be placed on hold.

- **Warning message**: Steinway & Sons, by Lieberman, Richard K. You have already requested this title.

- **Information message**: Sorry, you cannot place holds because you owe $100.00.
Useful screen error messages (staff)

**Please confirm checkout**
- Too many checked out. 3 checked out, only 2 are allowed.

[Yes, Check Out (Y)] [No, Don't Check Out (N)]

**Please confirm checkout**
- The patron has a debt of 100.00
- Item *Treasure box*: (39344004464761) is checked out to PTFS STAFF (admin_2).
  Check in and check out?

[Yes, Check Out (Y)] [No, Don't Check Out (N)]
Misleading screen error messages

• Items are available; this actually results from a limit on number of holds in the circ rule:
Searching Problems

• No searches produce results anywhere? Check to be sure zebra process is running
• Stop and restart zebra if necessary
• If staff is searchable but OPAC isn’t, check OpacSuppression syspref – if on, do you have at least one suppressed item?
• Can search in general but not for recently added titles? What’s the timing on the update cron job?
Searching Problems

• Check zebraqueue table to see if the title is still waiting for indexing:

```
select zebraqueue.id, zebraqueue.biblio_auth_number, zebraqueue.operation, zebraqueue.server, zebraqueue.done, zebraqueue.time, biblio.title from zebraqueue join biblio on (zebraqueue.biblio_auth_number = biblio.biblionumber) where done = '0' and zebraqueue.server = 'biblioserver'
```
Stuck in zebraqueue?

• What’s the timestamp on the oldest entry?
• Try running the zebra update manually – any errors?
• Check the oldest bib record – corrupt or wrongly-encoded MARC records can block processing. Overlay or remove the problem record – get to it manually by constructing a URL with its biblionumber like http://my.system.url/cgi-bin/koha/catalogue/detail.pl?biblionumber=39
Notices

• Patrons complain about not getting overdue, hold, advance, other notices
• Check the patron’s enhanced messaging options – are those notice types selected?
• Is the patron category set to get overdue notices?
• Check the cron jobs – are overdue and advance notice crons running?
• Check the notice triggers for overdue notices
Message Queue Queries

• Check the message queue to see what was generated
• List all, most recent first:
  select * from message_queue order by time_queued desc
• Limit to one type of notice:
  select * from message_queue where letter_code = ‘HOLD’ order by time_queued desc
Message Queue Queries

• Limit to one patron record:
  select * from message_queue where borrowernumber = '12345' order by time_queue desc

• Limit to a particular date:
  select * from message_queue where time_queue like '2012-06-04%' order by time_queue desc
Message Found?

• If the message is not in the queue, Koha did not generate it – why? Can you replicate?
• If it’s in the queue, what’s the status?
  – “sent” was handed off to mail server (is that running OK?)
  – “pending” is waiting for process_message_queue cron
  – “failed” indicates a problem with patron’s email address
• If message shows as sent, have patron check their junk mail folder or their ISP for spam or block
Fines

• Fines – check circ rules as with checkout/hold problems. Find which rule applies and see what it has for fine charge

• Is there a fine charging interval set in circ rule?

• Check your issues table for orphaned records (null itemnumber or borrowernumber) – these can choke the fines script.

• Is finesMode syspref set to production mode?
Reports

• Reports – delivered reports and guided reports are very limited, usually need to develop saved SQL specific to needs
• Learn table structure and SQL query syntax
• Build up your own library of reports
• See

http://wiki.koha-community.org/wiki/SQL_Reports_Library
Most Important Tables for Reports

- Most of the data you want will be in biblio, biblioitems, items, borrowers, issues, reserves, accountlines
- Sometimes you need others, like branchtransfers, borrower_message_preference, deletedbiblio, deleteditem, old_issues, or old_reserves
- See [http://wiki.koha-community.org/wiki/DB_Schema](http://wiki.koha-community.org/wiki/DB_Schema) for several versions
Database Schema

• If your version of MySQL doesn’t restrict access, you can query your database schema directly:

```sql
select TABLE_NAME, COLUMN_NAME from information_schema.columns where table_schema != 'information_schema' order by TABLE_NAME asc
```

(or select * for more information)
Sample Reports

• Patrons who owe more than 25.00:

SELECT borrowers.surname, borrowers.firstname, borrowers.cardnumber, round(Sum(accountlines.amountoutstanding),2) as 'Owed'
FROM accountlines JOIN borrowers on (accountlines.borrowernumber = borrowers.borrowernumber)
group by accountlines.borrowernumber having sum(accountlines.amountoutstanding) > 25 order by borrowers.surname, borrowers.firstname
Sample Reports

• Titles with patron-added reviews:
  select biblio.title, borrowers.surname, borrowers.firstname, borrowers.cardnumber, reviews.review, reviews.approved, reviews.datereviewed from reviews JOIN biblio on (reviews.biblionumber = biblio.biblionumber) JOIN borrowers on (reviews.borrowernumber = borrowers.borrowernumber) order by biblio.title asc
Sample Reports

• Previous seven days’ checkouts and renewals, by day of week:

```
SELECT DAYNAME(statistics.datetime) AS 'Weekday', statistics.type ,count(*) FROM statistics WHERE statistics.datetime >= (now() - interval 7 day) and statistics.type in ('issue', 'renew') GROUP BY DAYNAME(statistics.datetime), statistics.type ORDER BY statistics.type, DAYNAME(statistics.datetime) asc
```
Sample Reports

- Items checked out today, by branch and patron:

```
SELECT borrowers.surname, borrowers.firstname, 
borrowers.cardnumber, biblio.title, biblio.author, 
items.itemcallnumber, items.barcode, issues.branchcode, 
issues.timestamp FROM issues JOIN borrowers ON 
(borrowers.borrowernumber=issues.borrowernumber) JOIN 
items ON (issues.itemnumber=items.itemnumber) JOIN biblio 
ON (items.biblionumber=biblio.biblionumber) WHERE 
date(issues.issuedate) = date(now()) ORDER BY 
issues.branchcode, borrowers.surname, borrowers.firstname
```
Sample Reports

• To find patrons with particular messaging options, first

  select * from message_attributes

• to identify the message_attribute_id number for the notice you want. Then use this to see who has e.g. Advance Notice (# 2 on this system) turned on:
Sample Reports

select borrowers.cardnumber, borrowers.surname, borrowers.firstname from borrower_message_preferences JOIN borrowers on (borrower_message_preferences.borrowernumber = borrowers.borrowernumber) where borrower_message_preferences.message_attribute_id = 2 and borrower_message_preferences.days_in_advance != 0 order by borrowers.surname, borrowers.firstname
Questions?

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