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Harmony: Clarity, Cleanup, and Standardization Concepts for RSA's ILS

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Background

RSA staff have been working for several months to prepare for an Integrated Library System (ILS) migration. We have been working on the assumption that following an environmental scan to be conducted this fall, we would most likely complete an in-place Symphony to Symphony migration about a year from now followed by the possibility of a full migration at the end of our current contract with SirsiDynix.

The current Symphony system went live almost 20 years ago and was designed at a time when there was little consensus among member libraries about the way that materials should circulate to patrons, and there were tighter constraints on what Symphony could do.

In the intervening two decades several trends have developed to build something of an unplanned consensus. 128 of our libraries have gone fine free, meaning there are many fewer fine/bill rules required. Libraries have often standardized their own circulation rules so that there are fewer different circulation limits for different types of patrons or for different types of material. These trends were accelerated by the COVID-19 pandemic as libraries sought to make things easier for their staff and patrons and have further developed as 58 RSA libraries have adopted autorenewals. In addition, updates to Symphony means that multiple user profiles and item types can be combined on a single row in the circulation map.

In a recent conversation with the support team at Sirsi we were strongly encouraged by them not to work towards an in-place migration but instead clean up our current database by removing policies including old libraries, item types, and item categories, circulation rules and overdue bill structures as well as renaming the current libraries, all using our new naming conventions. We had not previously understood that this kind of work was possible in the confines of our existing database, and this came as a bit of a revelation.

The advantages of this approach is that it will be less disruptive for member libraries, RSA staff can work on the project over a longer period, we can leverage services from Sirsi that we already pay for to help us, and it will cost a lot less to implement than an in-place migration.

To this end, we have started implementing some changes already, including creating new overdue bill structures and circulation rules. These changes will be explained more fully below.

What is Harmony?



As we have adjusted our focus away from an in-place migration to thinking about how we should clean up our current Symphony database, we realized that referring to the overall project as a database migration was no longer useful.

The **Harmony Project** will focus on three aspects of work on the database: Clarity, Clean Up, and Standardization. These aspects will go hand in hand so that the database is easier to understand and simpler to administrate. Look for the Harmony logo on our communications about this project.

The name **Harmony Project** was chosen partly as a music inspired riff on the database's name, Symphony, and partly as an expression of the main aims of our work to provide clarity, to clean up unused system policies, and to work towards greater standardization between libraries where it is possible and desired. The **Harmony Project** supports the [RSA Core Principles](#) of Reciprocity, Convenience, Discoverability.

Implementation of the Harmony Project

Design Fundamentals

In developing the design for the elements of the new database I have followed these fundamental principles.

1. The design language must be system neutral
 - Examples are based on Symphony constraints, but the overall principles should apply in the event we migrate to a different vendor in the future
2. Codes should be human readable
 - Codes should be designed consistently to allow RSA staff and others to easily interpret them
 - When abbreviating codes such as Library System Codes to fit digit constraints vowels are cut first as this leaves the abbreviated code human readable
3. Ensuring a future proof design where possible
 - Codes should be designed to allow for addition of library branches, new circulation rules, new item types, and so on
 - No design can be future proofed against a library changing its name, but new codes will reflect the new names of libraries that have changed in the last 20 years

Library System Codes

The first candidate for redesign is the System Codes in no small part because they were one of the easiest to work on. These codes have been developed using the Design Fundamentals listed above. Another consideration is that when the current Symphony database was developed the

decision was made to use the two-digit codes used in the previous CarlX system as a kind of prefix to the ten-digit system code. In a new system we would no longer need to follow that strict rule and would instead use a four-letter abbreviation when we need one. The other major consideration we need to address in designing the new codes is to clearly distinguish school libraries from publics in the hopes of ameliorating the large number of items which get sent to school libraries in error.

In the example shown in Figure 1, Peoria Public Library's branches are numbered 1-6. PEORIA0 refers to the library group to which all the branches belong. If Peoria Heights were to open a new branch it would receive the code PHEIGHTS2. While this might be unlikely, it is much more likely they might obtain lockers, which if they "own" items would need to be set up as a pseudo-branch. By dropping "-PL" in RUSHVIL-PL RUSHVILLE1 is easier to read. And by prefixing the school codes with "S_" it is easy to determine that this library is a school. To keep to ten digits, we drop the vowel "o" from the name Abingdon but "S_ABINGDN2" is still easy to read.

Figure 1: Sample of new system codes

Current System Code	Proposed New System Code	Length	Description
P0-ALL	PEORIA0	7	Peoria Public Library - Group
P0_MAIN-ST	PEORIA1	7	Peoria Public Library - Main Street Branch
P1_LVIEW	PEORIA2	7	Peoria Public Library - Lakeview Branch
P2_LINCOLN	PEORIA3	7	Peoria Public Library - Lincoln Branch
P3_MCLURE	PEORIA4	7	Peoria Public Library - McClure Branch
P8_NORTH	PEORIA5	7	Peoria Public Library - North Branch
P7_OUT	PEORIA6	7	Peoria Public Library - Outreach
PHEIGHTS	PHEIGHTS1	9	Peoria Heights Public Library
PITTSFIELD	PITTSFILD1	10	Pittsfield Public Library District
RANSOM-MEM	RANSOM1	7	Ransom Memorial Public Library
RUSHVIL-PL	RUSHVILLE1	10	Rushville Public Library
AB-ALL	S_ABINGDN0	10	Abingdon - Avon District 276 - Group
ABINGDN-HS	S_ABINGDN1	10	Abingdon-Avon CUSD #276 - High School
AB2NGDN-GS	S_ABINGDN2	10	Abingdon-Avon CUSD #276 - Hedding Grade School
AVON-CUSD	S_ABINGDN3	10	Abingdon-Avon CUSD #276 - Middle Elementary School

Although new System Codes were the first thing to be designed, they will be the last thing to be implemented as Sirsi will charge for the renaming process and that price should be cheaper once the rest of the work is done.

Item Types

There are currently 192 item types in Symphony, including 64 just for Books. Historically, Item Types were created to solve various problems with the large number of ways libraries wanted to circulate their items because the item-owning or circulating library, Item Types, and User Profiles are the only three elements Symphony considers when deciding if a circulation can happen or a hold can be placed. In addition, Item Types were created to describe both what the item is and how long it can circulate.

We will develop a simpler set of Item Types which are more generic and flexible. In the example in Figure 2, there would be several generic Book Item Types to accommodate the various needs of member libraries as well as some item types designed for specific purposes such as for limiting items to local holds only or to make them non-circulating such as for reference or special collections. A set of these Item Types would be available for Books, Periodicals, DVDs, Blu-rays, Audiobooks, Interlibrary loan items, Realia, and other broad categories. These broad categories would be mapped to format icons in the OPAC discovery layer.

We will also move away from any reliance on item types to tell library staff and patrons as to where to find items in your library. Instead, we will rely on Home Locations, which would not be restricted, as well as reliable call numbers implemented by staff at member libraries.

Figure 2: Suggested Item Type example

ITEM CAT 3	ITEM TYPE	LENGTH	Description
BOOK	BOOK-01	7	Generic
BOOK	BOOK-02	7	Generic
BOOK	BOOK-03	7	Generic
BOOK	BOOK-04	7	Generic
BOOK	BOOK-05	7	Generic
BOOK	BOOK-06	7	Generic
BOOK	BOOK-07	7	Generic
BOOK	BOOK-08	7	Generic
BOOK	BOOK-09	7	Generic
BOOK	BOOK-10	7	Generic
BOOK	BOOK-LH	7	Local Holds only
BOOK	BOOK-NC	7	Non-Circ
BOOK	BOOK-NWH	8	New Holdable
BOOK	BOOK-NWL	8	New Local Holds only
BOOK	BOOK-NWN	8	New Non Holdable
BOOK	BOOK-SP	7	Special

Overdue Bill Structures

There are currently 235 overdue bill structures in Symphony which we no longer use. These will be removed by Sirsi Dynix as part of the cleanup they are helping us with. The naming of new bill structures will be based on the table at Figure 3.

Figure 3: Overdue Bill Structure naming table

Daily Amount	First Letter	Maximum Amount	Second Letter
0.05	A	1.00	A
0.10	B	2.50	B
0.20	C	3.00	C
0.25	D	5.00	D
0.50	E	6.00	E
1.00	G	7.50	G
2.00	H	10.00	H
5.00	J	12.00	J
STAGGERED	X	15.00	K
		20.00	L
		25.00	M
		50.00	N
		80.00	Q
		100.00	R
		Price of item	P

An overdue bill structure of 10 cents a day up to a maximum of \$3 would be named BC_05C_03D which I hope provides a clear explanation of the rule within the ten-character limit we currently have available.

I completed a census of which bill structures are currently being used and what we would call them under the new naming convention which can be found in Figure 4. (Lines in green represent structures that have already been created. I also included how many days it would take to get to the maximum amount. It is worth considering that if a rule won't max out before the item goes lost then the max amount could be reduced to be in line with the go lost period, or to max out at the price of the item.

We will be reaching out to all the libraries that charge overdue fines to check with them that the current rules still work for them before we create the new overdue bill structures and circulation rules.

Figure 4: Overdue Bill Structure Census

Existing Code	Occurrences	New abbreviation	New full code	Length to max
AC	3	AA	AA_05C_01D	20 Days
AH	4	AD	AD_05C_05D	100 Days
AL	1	AM	AM_05C_25D	500 Days
BE	2	BB	BB_10C_2DL	25 Days
BF	1	BC	BC_10C_03D	30 Days
BH	9	BD	BD_10C_05D	50 Days
BI	2	BH	BH_10C_10D	100 Days
BT	1	BE	BE_10C_06D	60 Days
DH	2	CD	CD_20C_05D	25 Days
EH	2	DD	DD_25C_05D	20 Days
EI	1	DH	DH_25C_10D	40 Days
FE	1	EB	EB_50C_2DL	5 Days
FH	3	ED	ED_50C_05D	10 Days
FJ	1	EK	EK_50C_15D	30 Days
FU	1	EE	EE_50C_06D	12 Days
GH	8	GD	GD_01D_05D	5 Days
GI	1	GH	GH_01D_10D	10 Days
GK	1	GL	GL_01D_20D	20 Days
GL	2	GM	GM_01D_25D	25 Days
GQ	1	GN	GN_01D_50D	50 Days
GT	1	GE	GE_01D_06D	6 Days
II	1	HH	HH_02D_10D	5 Days
IK	1	HL	HL_02D_20D	10 Days
IQ	1	JN	JN_05D_50D	10 Days
IT	1	HJ	HJ_02D_12D	6 Days
LH	1	JD	JD_05D_05D	1 Day
LK	1	JL	JL_05D_20D	4 Days
LL	2	JM	JM_05D_25D	5 Days
LR	4	JR	JR_05D_CD	20 Days
LU	1	JQ	JQ_05D_80D	16 Days
NEW	1	BP	BP_10C_P	Price
NEW	1	GP	GP_01D_P	Price
NO		FF	FINEFREE	N/A
X1	1	XD	XD_05C_05D	100 Days
X2	1	XH	XH_05C_10D	200 Days
YC	1	BG	BG_10C_7DL	75 Days
YD	1	DG	DG_25C_7DL	30 Days
37	67			

Circulation Rules

After 20 years of using our current Symphony database, we have accrued 1850 circulation rules that are no longer used. We have asked Sirsi to start removing these for us. In addition, under our previous way of creating circulation rules each line in the circulation map has its own unique rule which meant that if a library wanted to change its method of circulating certain items, we created a brand-new rule.

We have already started moving to new rules that are not unique to a certain library but instead are named after the billing structure they use. So, all circulation rules that are fine free will begin FF. Any that charge overdue fines will be named after the first two letters of the bill structure they rely on. So far, we have created 19 new circulation rules with the new naming convention which have replaced approximately 170 old ones. The great advantage of this is that now when a library contacts us to change how their items might circulate there is a strong chance that we will already have a rule ready to be implemented right away which is more convenient for the member library and saves RSA staff time.

As mentioned above, part of the design fundamentals is that codes should be human readable. While circulation rules are not directly visible to staff at member libraries (although they can be seen in the circulation map available on the Support Site), I thought it would be useful to show how rule names might be designed to make system administrative tasks easier and more efficient for RSA staff.

Circulation rule naming convention

Figure 5 shows examples of some Circulation Rules and how we are now naming them. The naming convention shown in this example is based on the 10-digit maximum allowed in Symphony but could be rethought and adapted should we migrate to a different ILS with different constraints.

Figure 5: Circulation Rules Examples

Example 1

FF_14_2_U: Fine free items that are checked out for 14 days can be renewed twice along with an unlimited number of items.

BILL Structure used	Number of checkout days	Number of renewals	Number of items	Grace period
FF_ (FINEFREE)	14_	2_	U (Unlimited)	

Example 2

FF_14_1_4: Fine free items that are checked out for 14 days can be renewed once along with a total of 4 items.

BILL Structure used	Number of checkout days	Number of renewals	Number of items	Grace period
FF_ (FINEFREE)	14_	1_	4	

Example 3

GL_21_1_4: Items that use the GL_01D_20D overdue bill structure that are checked out for 21 days, can be renewed once along with a total of 4 items.

BILL Structure used	Number of checkout days	Number of renewals	Number of items	Grace period
GL_ (GL_01D_20D)	21_	1_	4	

Example 4

GL_21_1_4G: Same as Example 3 but has a Grace period before fines are charged.

BILL Structure used	Number of checkout days	Number of renewals	Number of items	Grace period
GL_ (GL_01D_20D)	21_	1_	4	3 days

What's next?

We will be identifying other policy categories where cleanup can be done and will be working through them with Sirsi Dynix. We are already thinking through the removal of unused item categories, user policies, and user categories.

Later this year RSA staff will take an environmental scan to see what other ILS systems are available and might meet RSA's complex needs and financial constraints. SirsiDynix and other interested vendors will be invited to provide demonstrations of their products.

What can we do?

If you are Director or their designee, I would encourage you to attend the DAC where I will continue to provide updates on the **Harmony Project**. Details of DAC meetings can be found [here](#).

Most important of all

When you receive emails inviting you to take part in surveys or to ask what settings you need us to implement, please be responsive. We really do need your input.

I would also encourage you to contact me at antony.deter@librariesofrsa.org if you have any suggestions, concerns, or questions with standardization and migration. Also email for a copy of this document. It will also be available [here](#).