

# Next-generation ERM system: '360 Resource Manager' helping to tame the e-world

Libraries today spend more than 60% of their budget on electronic resources. Instead of making life and work easier, these changes have created additional work and collections are incredibly complex to manage. The key to meeting customer needs in the library is being able to manage library collections effectively, and consequently to better connect users and researchers to the information they need. This requires not only the ability to choose and maintain access to e-resource titles, but to efficiently organize metadata about the library's subscriptions. Serials Solutions' electronic management (ERM) system, '360 Resource Manager', was developed to take advantage of what they believe is the industry's leading e-resource knowledgebase, integration and interoperability with multiple services and systems, flexible architecture, and consortia support to allow library staff to spend more time on data analysis and assessment than on maintaining subscription metadata.



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## The knowledgebase is critical in e-resource management

While the term electronic resource management (ERM) will most often bring thoughts of licences, contacts and other categories of subscription information to mind, being able to look at information from multiple holdings of the same title or to aggregate title information at the database level is also essential. In order to most effectively analyze and assess e-resource information and to most accurately connect patrons to information, the library's holding information must be accurate. The volume of e-resources and amount of change in holdings, URLs and providers preclude the ability for individual libraries to be able to track this information entirely on their own. Serials Solutions' ERM solution, '360 Resource Manager', is integrated with their knowledgebase, 'KnowledgeWorks'. Serials Solutions has developed relationships with information providers throughout the industry in order to obtain the most accurate and authoritative metadata about e-resources available from around the world.

When Serials Solutions makes a change to KnowledgeWorks, this change is pushed to 360 Resource Manager and all the other services integrated with KnowledgeWorks (A-Z list, 360 Core, 360 Link, 360 Search, 360 MARC Updates, 360 Counter, and Summon) – without any work on the part of library staff. When a library has a change to their local holdings, such as adding or removing a title from a customized package, the staff member makes the change once in the Client Center and it is pushed to all the library's integrated services.

In addition to incorporating periodic changes from the information providers, our editorial team maintains a database of rules to correct data and to normalize titles that represent the same publication, but have different metadata. Some providers do not track title changes, and may provide the most recent instance of the title, the ISSN from the original title, and holdings inclusive of the two titles. Serials Solutions is able to automatically process this information with each update and

provide higher quality data that includes information about the split title. Normalization also allows library staff to analyze and assess title information from multiple sources, which leads to better collection decisions and superior service to their users. Table 1 shows examples of the some of the 21 different title and ISSN combinations that are all normalized to a single authority title, ISSN and eISSN.

KnowledgeWorks tracks metadata for over 4,000 full-text databases encapsulating over 1.3 million e-journal holdings and over 2.3 million e-book holdings. Just as with e-journals, libraries can manage their e-book information at title, database, provider and collection levels. In addition, libraries can upload local collections, including their print holdings, allowing the library to track local subscription information about all of their resources.

### Libraries use 360 Resource Manager to manage their collections

360 Resource Manager provides tools and functionality allowing customers to manage all aspects of e-resources. Various types of information, such as licences, contacts, notes and statistics, are associated with the titles, databases, providers and collections in the library's Serials Solutions profile. The service offers both a structured approach to managing metadata, as well as enough flexibility to accommodate needs of different libraries.

In most libraries, the workflow for managing e-journals had been based on the management of print journals. Libraries soon discovered that contrary to the widely held belief that e-journals

would simplify their life, they actually created additional work and were incredibly complex to manage. In addition to the complexity of workflow surrounding the e-journals, the increasing size and complexity of the aggregated databases and movement of e-journals from provider to provider created a tangled mess that required a new approach to management of the e-journals.

The initial release of 360 Resource Manager in 2005 was based on the guidance offered by the Digital Library Federation Electronic Resource Management Initiative (DLF ERMI)<sup>1</sup>. This document reflected areas of functionality and attempted to define data elements that librarians saw as critical to managing the e-journals, which require different management than their print counterparts. Since the publication of the ERMI report, e-books have gained acceptance in the library, and e-resource management has continued to evolve. 360 Resource Manager regularly continues to release new features and functionalities that provide major benefits to the library and information community.

Using 360 Resource Manager, customers can manage licences throughout the entire e-resource lifecycle. Some create a default licence used during negotiations with publishers. Additionally, old licences can be retained for reference. The licences can be applied at a top level and can inherit down to cover all resources. An example could be creating a provider-level licence for Elsevier databases and having that licence automatically inherit down to cover all Elsevier subscriptions while still maintaining the capability to create and attach a different, unique prevailing licence for a specific Elsevier database or even for a specific journal within a database.

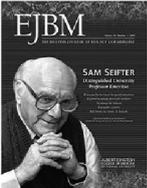
Title and ISSN received by Serials Solutions		Correction/Rule	Intended Title
Einstein J Biol Med	1559-5498	Alternate Title	
Einstein Journal of Biology & Medicine	0724-6706	ISSN for Previous Title	
Einstein Journal of Biology and Medicine (EJBM)		Alternate Title	
EJBM	1559-5498	Alternate Title	
The Einstein journal of biology and medicine	1559-5498	Authority Match ISSN	
The Einstein journal of biology and medicine	1559-5501	Authority Match eISSN	
The Einstein journal of biology and medicine : EJBM	1559-5501	Alternate Title	
The Einstein journal of biology and medicine EJBM	1559-5498	Alternate Title	

Table 1. Examples of some of the 21 different title and ISSN combinations for one journal that can be normalized to help library staff

Serials Solutions maintains a 'vendor neutral' approach to the market. As such, tools have been developed to help support librarians in their need to populate 360 Resource Manager. The value of having a single, authoritative spot to maintain all contact information (sales, consortia, legal, internal, support, etc.) is invaluable to libraries. The contacts importer allows a librarian to provide a spreadsheet of contacts that can be imported to reduce data entry inefficiencies. Importing 1,000 contacts in 10 seconds or less is a valuable time-saving tool. Updates to contacts take place in a central location – thereby providing authoritative, current information to all staff in the library.

Our vendor neutral approach has also been taken in regards to populating cost and payment information. The vast majority of libraries purchase resources in a variety of ways – multiple subscription agents, direct to the publisher/provider or via a consortium. The average North American academic library participates in three to four consortia, for example, and this number is increasing ever year. 360 Resource Manager allows customers to track cost and payment information for all subscriptions, not just those ordered via a single system. Customers can download a list or lists of their tracked resources in a pre-populated template complete with identifiers that can be used to match with their resources in outside business systems. Then they can extract cost and payment details from the business system, populate the template and upload the information. The template is flexible, allowing for a customer to mix and match costs and resources. For example, customers could populate at the e-journal title level all of the ScienceDirect Freedom Collection, and also populate database costs for the other hundreds of databases they track – all in the same spreadsheet. This cost information is used directly in the 360 Counter service to generate cost-per-use statistics.

Users of 360 Resource Manager also have great flexibility in tracking all types of information surrounding e-resource utilization and lifecycle management. Through the use of standalone Notes that can be associated with provider and resources at any level, customers have the ability to track trial information and decisions including stakeholder comments on value of a resource, outages, cancellation projects, activation, licensing issues, processes and decision, acquisitions and renewals.

The reporting functionality provides customers with access to information they have entered as it

is needed. Customers can generate reports for cost and payment information, licence information, Notes, Contacts, and customers can now generate a list of all of the resources tracked and managed in 360 Resource Manager in a format specifically designed to populate the SFX link resolver. Our development partners, California Digital Library, worked closely with Serials Solutions to define this report. It provides access 24x7x365 to a knowledgebase of e-journals and e-books. Customers can generate this report on one, any or all of their databases and it provides separate reports for e-journals and e-books.

Management of e-resources in 360 Resource Manager with the 100% integration between this service and all of the other 360 services contributes to greater efficiency in the library. Customers can update resource data in one service and have this change reflected automatically in all of the associated services without the need to manage and update the same information in multiple knowledgebases, with the repetitive rekeying of data. In addition, each of the services use the same information from KnowledgeWorks and therefore the users and patrons of both the management services and the discovery services are using information that is authoritative. This results in very little possibility for errors and linking to non-existent titles and articles.

### **Support for consortia using 360 Resource Manager Consortium Edition**

Consortia play a major role in the library community and the importance and prominence is continuing to expand in all regions of the world. We developed 360 Resource Manager Consortium Edition to support both academic consortia and multiple-tiered libraries. Any multi-tiered organization or multi-location organization can benefit from this service. In the corporate or government sectors where a central library or knowledge centre manages a set of resources for all or some of their branches/locations and needs to share that information, the resources and metadata such as the licence details and terms, contacts and notes can be shared with a single click. Any updates to the resources or objects managed by the top-level consortium are instantly updated in the member/partner library instance.

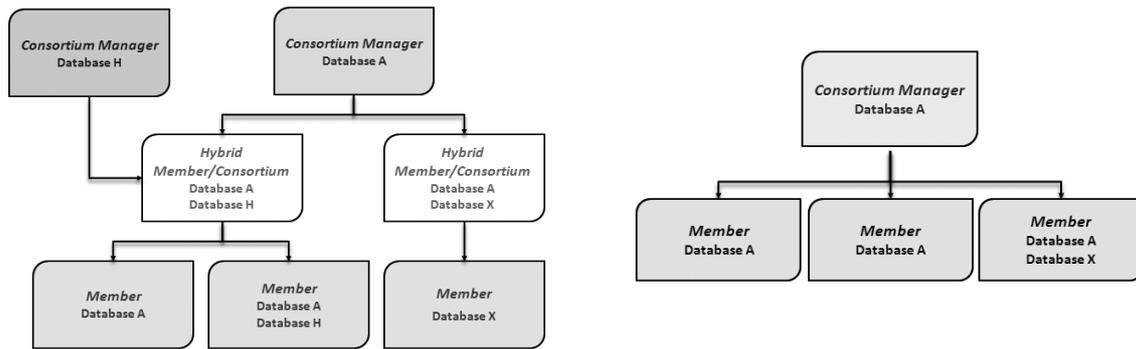


Figure 1. Serials Solutions can support multiple consortia sharing resources into a single member/partner profile

### Sample linking and object sharing possibilities

We have also developed functionality to allow a middle tier to act as a 'pass-through' profile. This enables Serials Solutions to create a top-level consortium manager profile, associate the pass-through profile with that and associate '1 - n' numbers of lower tier member/partner libraries. An example can be seen in our relationship with the GALILEO consortium<sup>2</sup>. GALILEO is at the top, one of the middle pass-through profiles is Georgia K-12 Public Schools. All GALILEO shared resources and objects flow through the pass-through profile and are immediately available to literally hundreds of members/partners. Again, this is very efficient as GALILEO shares resources and metadata with a handful of pass-through profiles rather than with hundreds of member/partner profiles.

The beauty of 360 Resource Manager Consortium Edition is that it helps to realize time savings for both the consortium and the members. Updates are automatic. Notifications of newly available resources are system generated and only sent when new resources are available, thus reducing the spam effect. Members/partners can manage all (consortium purchased and locally purchased) resources in a single interface. Figure 1 shows how Serials Solutions can also support multiple consortia sharing resources into a single member/partner profile.

Another major release will automate the process of pulling cost and payment information from a consortium business system into 360 Resource Manager Consortium Edition, allow for the allocation and association of the payment data with the resources and, when the resource is shared with the member/partner, the cost and

payment data is automatically populated into the member/partner profile. When a library purchases as much as 40%-60% of their resources via consortia, this represents an incredible efficiency gain.

360 Resource Manager and 360 Resource Manager Consortium Edition are updated with new features and functionality multiple times throughout the year. Serials Solutions product managers work closely with our customers to discover market needs, define feature and functionality requirements and then beta test with development partners and customers. Our hosted solutions reduce the cost of ownership for the library, increase efficiency for libraries and consortia and provide a solid service that is extensible.

### References

1. DLF Electronic Resource Management Initiative:  
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