

Welcome to September's BIC Breakfast: EDI & Enriched Metadata: Driving the Efficiency of Libraries into the 21st Century and Beyond

#BICBreakfast

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BI

THE BOOK INDUSTRY'S SUPPLY CHAIN ORGANISATION



BIC Committees

Digital Supply Chain Libraries Metadata Physical Supply Chain Training, Events & Communications



Regular BIC Events

BIC Breakfasts (monthly)

BIC Networking Events including our annual BIC Bash (14th November 2017)

Building a Better Business Seminar at LBF (12th April March 2018)

New Trends in Publishing Seminar (September 2018)



BIC on the web

Extensive Training Programme

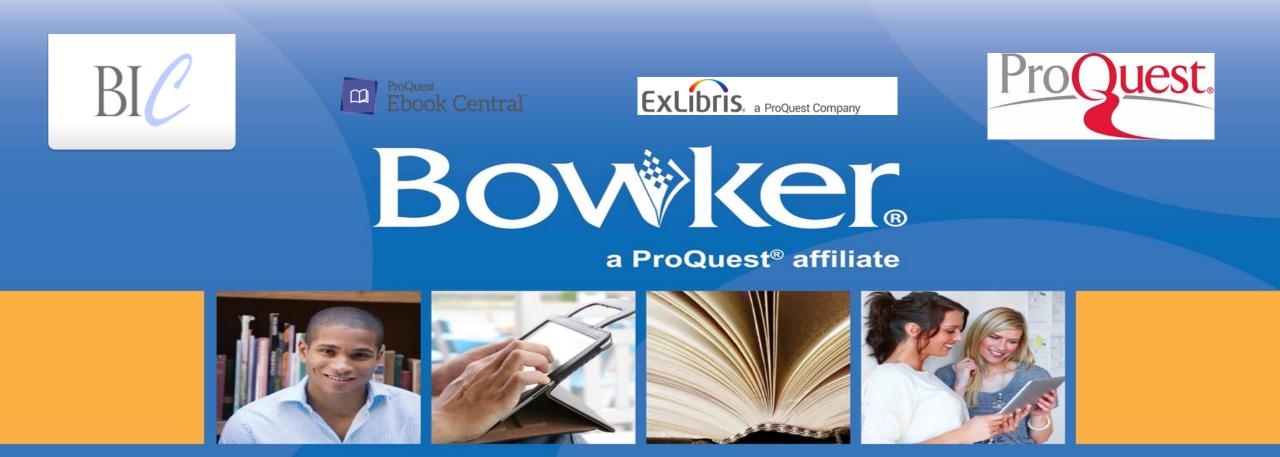
Social Media: @BIC1UK @KarinaLuke @LastPhoenixDown

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Your Partner in Discovery

BIC Breakfast Wednesday 27th September 2017 Jack Tipping – Bowker UK

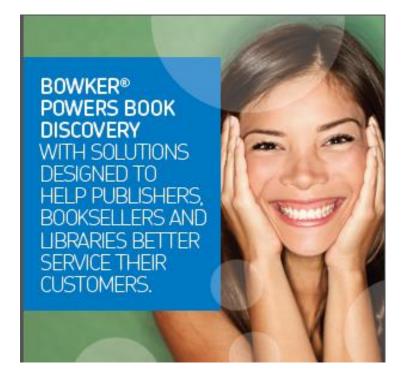
Bowker Mission



To connect readers with books, and provide critical insights in to readership worldwide



Bowker is Your Partner in Discovery!



140+ years serving the global book publishing community

Book Publishers Authors Libraries Book Sellers Book Consumers/Lovers



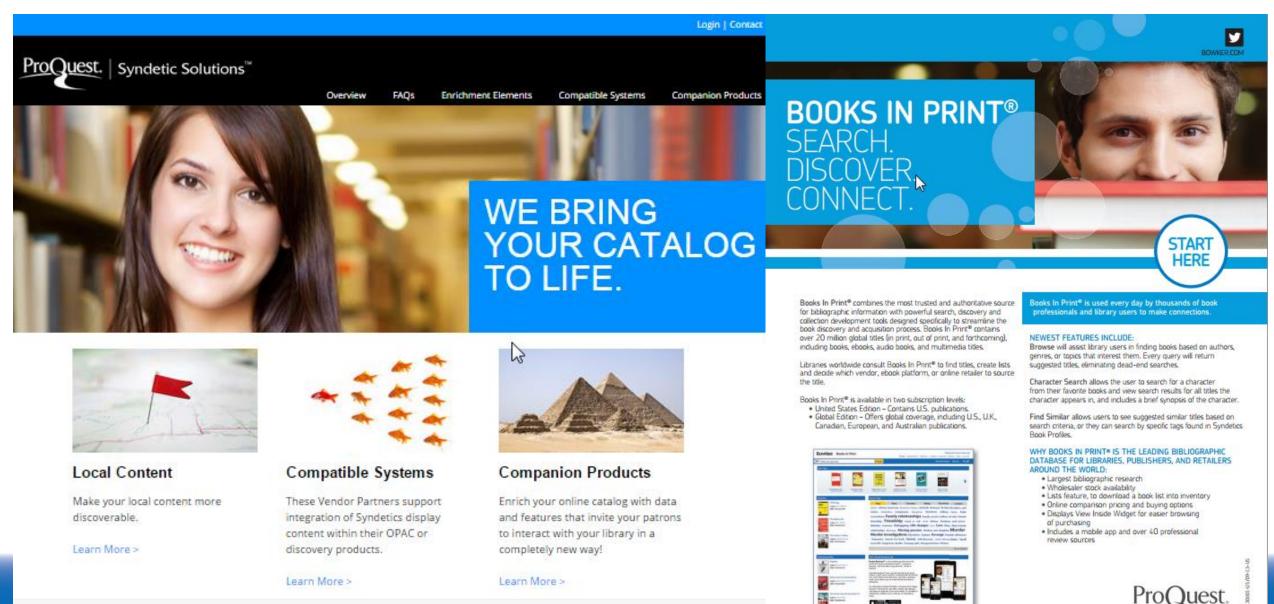


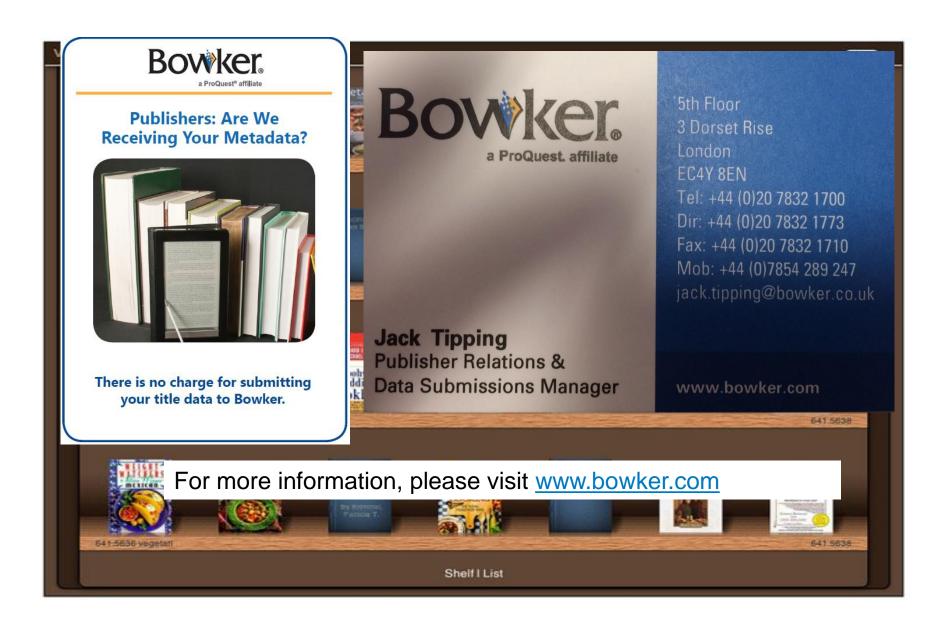
No charge to supply metadata to Bowker

- Provide metadata to retailers, libraries, and schools
- Communicate price and status updates in a timely fashion to multiple customers
- Display enhanced content such as cover images and marketing descriptions for readers and buyers
- Increase awareness of your titles



Powerful Metadata









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Over to Catherine...

BIC Breakfast 27th September 2017

EDI & Enriched Metadata: Driving the efficiency of libraries into the 21st century and beyond

Catherine Cooke

Westminster Libraries

• What is EDI?

- Electronic Data Interchange
 - The direct communication of trading messages between computer systems, using national and international telecommunications networks
 - Electronic Trading using open systems, standard message formats and communications protocols
 - Effective management of supply chain



• Orders

- Self-explanatory
- Cornerstone of EDI
- The message most people seem to be using
- The vast majority of orders go EDI



- DAY
- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Monday
- Tuesday }

MANUAL

- Order placed
- Printed and posted

Rec'd at vendor

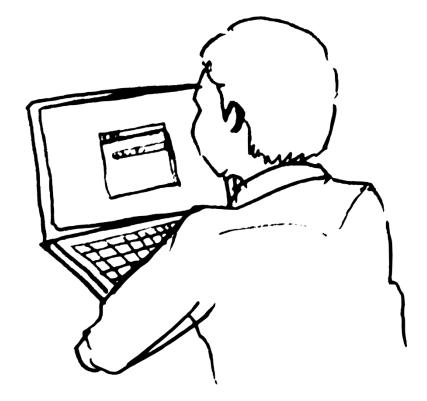
- Keyed into vendor
- system

EDI

Order placed Sent over EDI; vendor receives & loads

Quotes

- Puts order on Library System when staff don't
 - Standing Orders
 - Shop Selections / Showroom Visits
 - Web site orders
 - Supplier Selection
- Return EDI Confirmation Order
- Maintains full audit and budgetary control
- Allows other EDI messages to follow



Invoices

- Self-explanatory
- Manually building invoice at receipt is
 - time-consuming
 - prone to error
- EDI puts invoice on Library System before staff open the box
- Electronic copy invoice
- May also receipt stock



Receipting

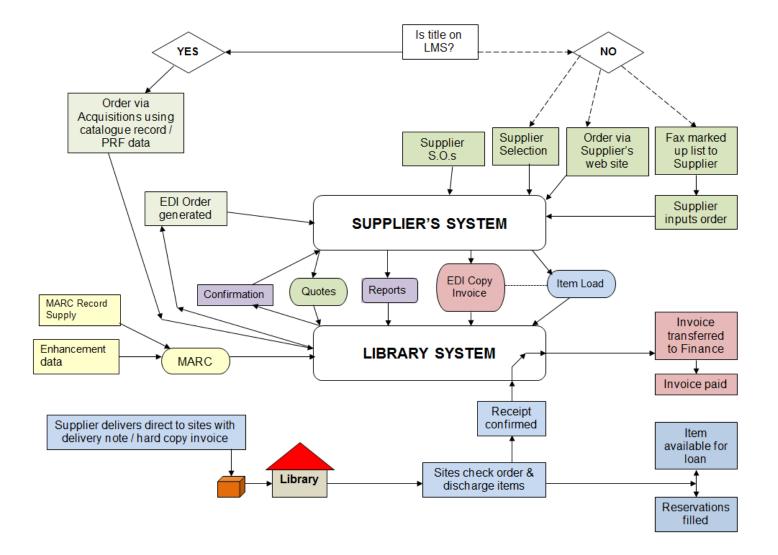
- Order Response message
 - "Order Fulfilment"
 - "Shelf-ready stock"
- Puts items on Library System before staff open the box
- Staff check paper invoice against box
- Discharge for reservations / shelves



Acknowledgements

- Order Response message
 - Acknowledgements
 - Reports
- Keeps order records up to date
- Notifies dates of publication or reprinting
- Cancels unobtainable





Key Benefits

- •Speed of supply
- •Reduction of error
- •Elimination of duplication
- •Reduction of back office work
- •Savings in staff time
- Technology
 - •Further business aims
 - To reduce costs
- •Reputation as forwardlooking service

Other system improvements around EDI

- Link to Corporate Finance system
- Cataloguing aspects of Quotes
 - Can only load order if Title on LMS checks by ISBN
 - If match loads order
 - If no match, MARC compatible record and loads order
- Catalogues need more





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Enriched Metadata Unlocking the treasures of the library

Doug McMillan

VP Strategic Partnerships and Licensing

ProQuest.

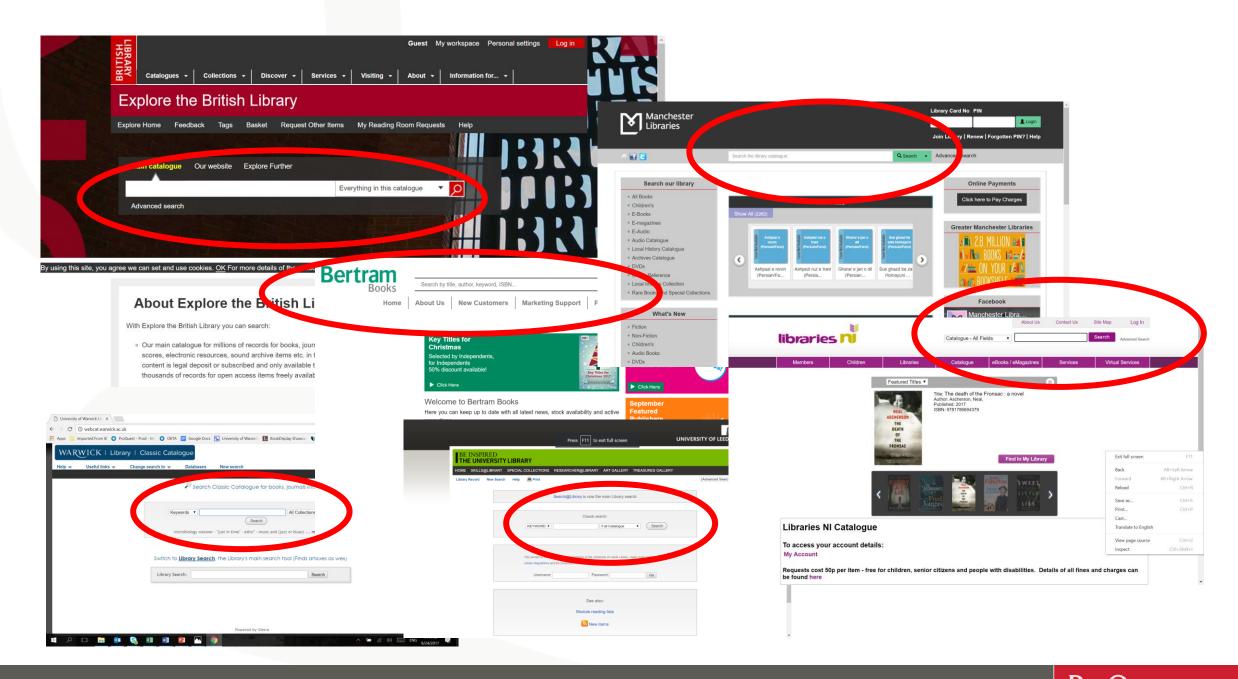
Core and Enriched Metadata



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Mainframe to Windows

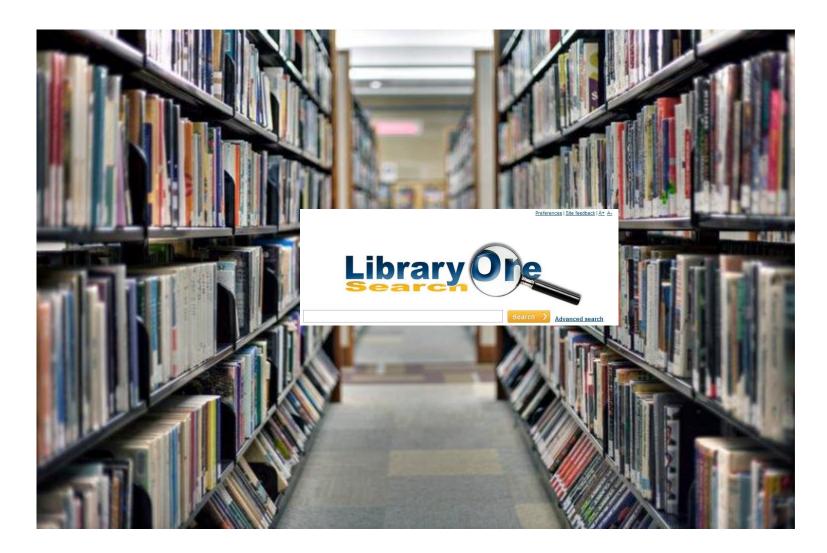
- Amazon launched in 1995 and consumers were looking at metadata for the first time – no longer just library reference desks and wholesaler warehouses
- To figure out what to borrow or buy online consumers needed to see the metadata
- Windows made it much easier to display data
- Libraries and booksellers quickly followed suit



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Search Engines

- Use metadata as an information retrieval system to connect searchers with content
- All words have a value
- Keywords and phrases are most important but searchable textual content also improves results
- Inclusion of enriched data at record detail level improves user experience and aids selection decisions

Enriched metadata sources

- Create accurate, current and rich Marc records
- Federated search / Discovery services / Linked data
- Access enriched content via APIs
- Access third party hosted enrichment data
- Combination of all of these...

Discover to Explore

- Discovery has been the buzz word for several years
- A lot of online library searches are for known items
- How can enriched data help encourage exploration of the collection, improve the user experience and drive issues/circulation/usage?
- Demos
- <u>http://explore.bl.uk/primo_library/libweb/action/search.do?vid=BLVU1</u>
- <u>https://encore.cuyahogafallslibrary.org/iii/encore/record/C Rb147093</u>
 <u>6 Sraven%20boys Orightresult U X7?lang=eng&suite=def</u>



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Taking Libraries Beyond EDI

John Garrould

Head of IT, Connect Books





Using Web Services API's to move beyond EDI:

- 1. Web Service API's v EDI
- 2. What's the difference between BIC LCF and BIC Library Web Services?
- 3. BIC Library Web Services development project
- 4. The need for standards / Bertrams experience implementing
- 5. Next steps





Web Service API's v EDI in a nutshell:

- Web Services (SOAP, XML, REST, JSON) are faster and cheaper to implement
 - Lower cost technology stack
 - API's are described by a machine readable schema that can be used to generate code, and validate messages before they are sent and on receipt.
 - Current technology IT Graduates will have studied Web Services and other forms of RMI, but are unlikely to have even heard of EDI.
 - See the *BIC Realtime* Implementation Guide for a worked example showing an EDI implementation costing £37k v the same implementation using API's costing £10k

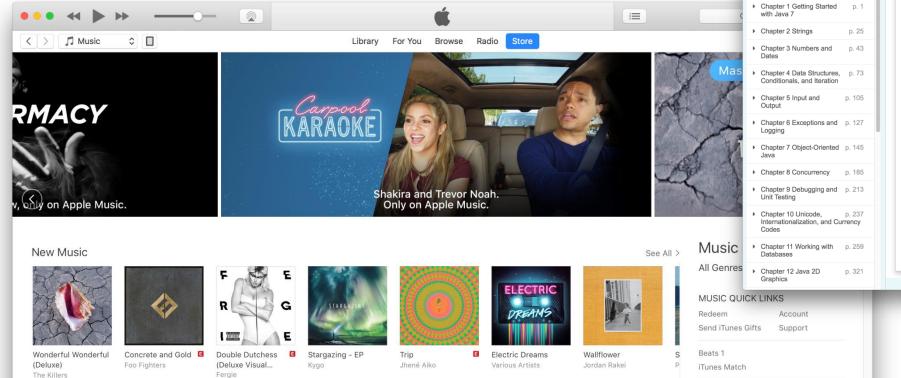






Web Service API's v EDI in a nutshell:

- Web Service API's can operate in real-time
 - EDI Quotes to Order cycle at best takes 1 to 2 hours and more frequently > 24hrs
 - The new generation of users have grown up with the web, iTunes, Amazon, Kindle and eBooks, they expect immediate service and seamless integration.
 - EDI survives because its batch nature is OK for physical products BUT not fit for purpose in digital supply chains.





What's the difference between BIC LCF and BIC Library Web Services?

 LCF (Library Communications Framework) Scope: Connecting the LMS with other systems running within the library's own network, e.g. Self Service Terminals, RFID, NFC, etc.

LCF can also be considered to address Patron Facing use-cases.

There are a few grey areas where it is not clear if a requirement sits in the LCF or BIC Web Services Projects. For example Inter-Library-Loans (ILL). These will be resolved by the BIC Libraries Committee on a caseby-case basis.

2. BIC Library Web Services API's

Scope: Connecting the LMS with external suppliers of content (both physical and digital) and metadata.







BIC Library Web Services development project

The working group has agreed that a BIC Industry standard API has agreed to give priority to real-time API replacement for the current EDI messages:

- 1. Price and Availability
- 2. Quotes
- 3. Order & Order Response
- 4. Despatch / Fulfilments
- 5. Invoice
- 6. Credit

Why?

- 1. The need to support digital media fulfilment in realtime (music, video, books, knowledge bases)
- 2. To address the proliferation of proprietary API's which are being established in the absence of an industry standard.

Approach:

- 1. Documents which will only be used by the LMS will be based on EDItX, with JSON versions also available.
- 2. This allows us to address the bloated nature of the current EDI messages, where library requirements have had to be squeezed into TRADACOMS and EDIFACT standard messages.
- For the Invoice and Credit we will investigate using the OASIS UBL (Universal Business Language) Invoice and Credit. These are more likely to be supported by ERP / Financial Systems vendors such as SAP, Agresso, Oracle, etc. and offer better interoperability with EU PEPPOL.





The need for standards / Bertrams experience implementing

Why?

- 1. The need to support digital media fulfilment in realtime (music, video, books, knowledge bases)
- To address the proliferation of proprietary API's which are being established in the absence of an industry standard.

Libraries Ireland wanted to use a modern alternative to EDI so required the use of API's instead of EDI.

In the absence of an industry standard the chosen LMS vendors set of proprietary API's were used to integrate Bertrams and their LMS.

RESTful APIs to Extend Functionality

Data flows in and out of Sierra for an integrated and seamless user experience without the complication of detailed software coding. Sierra customers are using well-tested Sierra RESTful APIs to free up bibliographic, authority, patron, and transactional data. Library users benefit from integration with library discovery tools, courseware, virtual learning spaces, social media, "hot author" holds, and other web services.



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| Home Books | Audio Visual My Account | Basket Management | Order Management | Management Info | Engage |
|---------------------------------|--|-----------------------------|----------------------|------------------------|------------------|
| Active Baskets Te | mplates Forwarded Merge | d Submitted Arch | lived | | |
| G Basket Line > Results | > BasketList > Basket > Basket | List > Basket 📀 | | | |
| Basket test basket | MARC records Apply temp | blates Selected | Save dewey | Change number of lines | to display: 10 🔻 |
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| 2 items found, displaying all i | items. Page 1 | | | | |
| ■ ISBN/EAN \$ Author | ¢ Title | ¢ Publisher ≎ | Dewey 💠 Format 🖨 Tot | al , | ate ¢ |
| | | | Qt | Price | Show line |
| 5024952962150 () | Mr Men and Little Miss: Mr Bump go on a trip and 12 other | Delta Home Entertainment | DVD | £4.08 £4.08 | Remove line |
| 5024952962327 | Mr Men and Little Miss: A job for Lit | tle Delta Home | DVD | £4.08 £4.08 | Show line |
| 0 | Miss Giggles and 12 | Entertainment | 0,0 | 2 4.00 2 4.00 | Remove line |

2 items found, displaying all items. Page 1

In this example the customer has built a small basket containing two lines.

They are now ready to place this order with Bertrams, so they click through to Basket Management.....



| ł | lome | Book | s A | udio Visu | al My Ac | count | Basket Manage | ement | Order Mana |
|---|----------|---------|------------|-----------|---------------|----------|---------------|--------|------------|
| | Active I | Baskets | Tem | plates | Forwarded | Merged | Submitted | Archiv | ved |
| G | Results | > Basi | (et List > | Basket > | Basket List > | Basket > | Basket List 💿 | | |

Basket Management

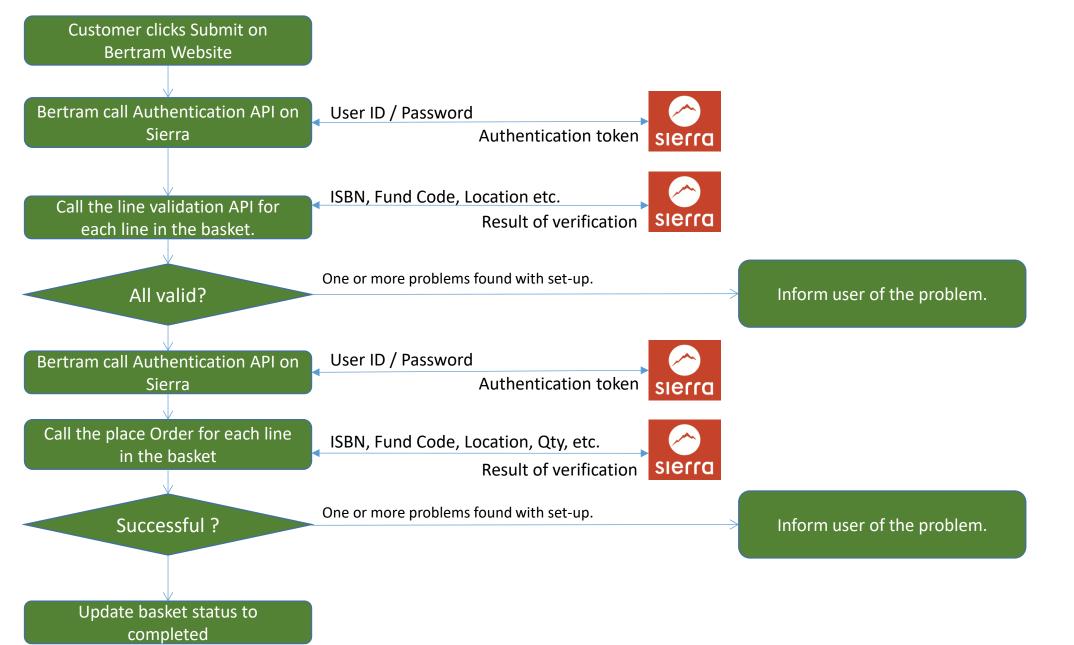
| Name | Basket Price | Sent By | | | | | |
|-------------|--------------|---------|------|---------|--------|---------|--------|
| testing | £ 6.96 | | Edit | Archive | Delete | Reports | Submit |
| test basket | £ 8.16 | | Edit | Archive | Delete | Reports | Submit |

The customer clicks on the Submit button and this then starts the real-time interaction with their LMS, powered by a set of API calls.

In the past this would have triggered an EDI Quote to be sent...received...processed...EDI Order sent...received....processed.



Bertram / Sierra Web Service API Workflow





Ordered by: isbn

| Report by ISBN | Report by br | anch Report by | y fund | 🔁 View P | DF | ownload | | | | | |
|---|--------------|----------------|-----------|------------------|--------------------|---------|-----------|-------|--------|----------------|-------|
| Total items ordered: 2 Total cost of order: £8.16 | | | | | | | | | | | |
| Order by (ascending | g): ISBN | Author | Date | Dewey F | ormat | Price | Publisher | Title | | | |
| Order by (descendin | ng): ISBN | Author | Date | Dewey F | ormat | Price | Publisher | Title | | | |
| | | | | | | | | | | | |
| ISBN/EAN | Title/Autho | r | | | | Date | Publisher | | Format | Price | Dewey |
| ISBN/EAN 5024952962150 () | | | np goes (| on a trip and 12 | 2 other / | | | | | Price £4.08 | Dewey |
| | | | mp goes (| on a trip and 12 | 2 other / | | | | | | Dewey |
| | Mr Men and | | | | 2 other / Notes | | | | | | Dewey |

Total volumes: 1 Total value: £4.08

| ISBN/EAN | Title/Author | Date | Publisher | Format | Price Dewey |
|------------------|---|----------|--------------------------|--------|-------------|
| 5024952962327 () | Mr Men and Little Miss: A job for Little Miss Giggles and 12/ | 20110221 | Delta Home Entertainment | DVD | £4.08 |

| Branch 🖨 Volume | es | Fund ᅌ | Shelving Location | Value | Order Ref | Notes |
|------------------|----|-----------|-------------------|-------|-------------|-------|
| VH | 1 | adlit400 | Juvenile Fiction | £4.08 | .o10004136x | |
| Total volumes: 1 | Т | otal valu | e: £4.08 | | | |

From end-to-end, the basket has been built, approved on the LMS, and PO Number returned to Bertrams, all in under one minute.



Conclusion and call to action....

- The Irish Libraries use of API's with Sierra is a brilliant example of the technology and very forward looking. They should be commended for taking this step.
- The use of proprietary API's instead of standard EDI is NOT economically viable.... it would cost too much to do a dozen or more API implementations for different LMS vendors and then have to support them.
- Please get involved in the BIC Library Web Services Project. Make sure it covers your requirements.
- Make sure that tender documents are specific and ask for "BIC Compatible EDI Messages" or "BIC Compatible Library Web Service API's", not just EDI or API's.
- Systems Vendors and Systems Integrators should have current BIC Supply Chain Accreditation.







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Thank you for attending September's BIC Breakfast: EDI & Enriched Metadata: Driving the Efficiency of Libraries into the 21st Century and Beyond

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