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Presentations and Posters

Title

EDIFACT Invoicing: An Introduction

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EDIFACT invoicing: an introduction

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What is EDIFACT ?

Electronic Data Interchange For Administration Commerce and Transport

Industry standard for transmitting invoicing information electronically

Adopted by many library materials vendors and library automation vendors in 2003

EDIFACT “statements”

Standard language (usually in XML format) to transmit the following kinds of information:

Quotes

Purchase Order

Purchase Order Response

Purchase Order Change

Order Status Enquiry

Invoice

Most *libraries* use it for **Purchase Orders** and **Invoice Processing**

General workflow using EDIFACT invoicing

- Vendor ships material
- At about same time, vendor notifies library that the electronic invoice is ready to be “picked up”
- Libraries FTP the vendor site to get the invoice
- The invoice is “loaded” into our library system
- After reviewing shipment, we “receive” the materials in one key stroke. Normally keep paper “copy of record”
- In ILS, items are shown as received, with paid date, paid amount, invoice number, and number of copies
- Invoice register is created and electronically transmitted to Disbursements who writes check

Why is this a savings to libraries?

For approval materials, it generates bibliographic records with author/title/publisher/order status

No need to key in or search OCLC to download records

Receiving is done in batches, little room for human error, status updated automatically

Invoice data does not have to be keyed in

Can use data to authorize payment

Why is it a savings to a vendor?

- Libraries can process invoices more quickly with less errors
- Can authorize payment more quickly
- Can often use invoice data to generate a “check-write” request

At UCSD – electronic invoices are processed within 24 hours of receipt,

“check cut” occurs within 48 hours

Manual invoices – 7 - 14 days **at best**

Essential Elements of an EDIFACT invoice

- **Invoice Header Section**

- DTM 3 M 1 Date/time/period Date of the invoice
- NAD - M 1 - Name and address
and Address Vendor name & Address/Buyer Name
- CUX 13 M 1 Currency Currency being used in the invoice
- PAT 14 M 1 Payment terms basis Payment terms (e.g. “30 days net”)

- **Invoice Detail Section**

- LIN 16 M 1 Line item Each title is listed individually
- QTY 19 M 1 Quantity number of copies
- PRI 21 M 1 Price details List price
- TAX 26 M 1 Duty/tax/fee detail Tax

What it looks like in code

- UNH+1+INVOIC:D:96A:UN Message header
- BGM+380+1FV0401336+9 I Invoice number
- DTM+137:20040409:102 Invoice Date
- RFF+ON:5500000033 Purchase Order number
- NAD+SU+3333333:31B Vendors SAN number
- CUX+2:EUR:4 Invoicing currency
- PAT+1 Payment terms
- DTM+140:20040810:102 Payment due date
- LIN+1++2546997:IN First line item on invoice
- QTY+47:8000:PCE Quantity
- MOA+203:66.48 Line item amount 66.48
- DTM+171:20040401:102 Order date
- TAX+7+VAT+++:::19.6+200 Tax Amount

How do I set it up?

- 1) Buy software or download free-ware and “do it yourself”
example: www.softsia.com

Software parses invoice data and converts it to an XML file that can be read by libraries with EDIFACT invoicing capabilities

- 2) Use a programming service and software provided by commercial company.

example: Amosoft EDI can integrate with your accounting and inventory software with EDI software..

A short term solution for your customers...

Provide invoices in Excel format

<http://excel-invoice-template.billing-invoice-template-office-kit-com.qarchive.org/>

Libraries can manipulate this data to allow batch loading of data into our ILS

Does not do all electronic invoicing does, but can create bibliographic/order records that don't have to be keyed in

What the vendor needs to do:

Invoice needs to be broken into **minimum** of 3 columns and sent as an Excel file -

Title

Publisher

Price of each item

ISBN is very helpful – but not required

Author is helpful – though not required

What the library needs to do

Using Excel file of invoice provided by Vendor

- Add additional columns for the 1) invoice number 2) invoice date 3) quantity 4) fund code and 5) location

Result is 8 columns, each of which will make up a MARC field or subfield

- **100** Author
- **245** Title
- **260** | b Publisher
- **980** | a = Inv. date | b = USD price | f = invoice number | g = quantity
- **981** | a=fund | u=location

Using MARCEdit to convert file to MARC

- free windows based *MARC editing* tool, that provides methods for converting Text to MARC
- maps the data in the invoice in Excel format to create MARC records
- batch loaded, the file creates bibliographic records and order records
- order records are populated with the invoice and payment information

Home Insert Page Layout Formulas Data Review View Add-Ins

Arial 8 A A B I U Font Alignment Number Number Conditional Formatting Styles Cell Styles Insert Delete Format Cells Sort & Filter Find & Select Editing

A	B	C	D	E	F	G	H	I
	DEL ESTADO COLONIAL AL ESTADO PLURINACIONAL. DINAMICAS INTERCULTURALES EN CONTEXTOS (TRANS)ANDINOS.	DINACOM.	9/28/2010	6.00	707 1	lat2	cck	
	ANOS DEL DESCALABRO. DIARIO INTIMO DE UN PAIS INCIERTO...	CEPA.VLIR.UOS.	9/28/2010	15.00	707 1	lat2	cck	
ZA L., Cecilia.	IDENTIDAD, DESARROLLO Y CULTURA EN LA METROPOLI PACE...	Ed.Gente Comun.	9/28/2010	14.00	707 1	lat2	cck	
AS O., Gonzalo.	EL GERMAN BELTRAN.	FES-ILDIS.	9/28/2010	5.90	707 1	lat2	cck	
EY G., Alberto	FRANZ TAMAYO: MITO Y TRAGEDIA.	Ed.Gente Comun.GMLP.	9/28/2010	11.50	707 1	lat2	cck	
LISTA G., ano.	OTRA HISTORIA DE BOLIVIA. 4ed.	Plural Ed.	9/28/2010	15.00	707 1	lat2	cck	
SPE, Jubenal.	MIGRACION Y CAMBIO CLIMATICO EN EL PROCESO DE TRANS...	Grupo Ed.Kipus.	9/28/2010	21.50	707 1	lat2	cck	
INA, Fernando.	CONJURA CONTRA EL HECHICERO. TAMAYO PARA EL INDIANISMO...	Grupo Ed.Kipus.CEPA.CLAI.	9/28/2010	10.00	707 1	lat2	cck	
IA M., Samuel.	ESTADO EN LA ECONOMIA. COMO SALIR DEL CICLO PRIVATIZACION...	Ed.Pazos Kanki.	9/28/2010	6.00	707 1	lat2	cck	
VEDRA, Jose	DESPOLITIZACION DE LA RAZA. ORGANIZACIONES JUVENILES EN...	Ed.Pazos Kanki.	9/28/2010	7.50	707 1	lat2	cck	
QUEZ O., e.	AMUYT'APXANANI. LA INSURGENCIA DE LA INTELLECTUALIDAD...	Observatorio del Racismo.	9/28/2010	9.00	707 1	lat2	cck	
ER, Leon E.	POLITICA HIDROCARBURIFERA AUTONOMICA: UNA PROPUESTA...	Ed.Verbo Divino.	9/28/2010	9.50	707 1	lat2	cck	
	PRESENCIA JUDIA EN BOLIVIA. LA OLA INMIGRA..1938 - 1940.	Grupo Ed.Kipus.	9/28/2010	14.00	707 1	lat2	cck	
		Ed. El Pais. Lewy Libros.	9/28/2010	31.50	707 1	lat2	cck	

MAR Cedit output from CSV

- =LDR 0000nam a2200000Ia 450
 - =008 110513s9999\\\$x\\\$000\0\und\d
 - =245 \\\$aDEL ESTADO COLONIAL AL ESTADO PLURINACIONAL.
 - =260 \\\$aDINACOM.
 - =945 \\\$1 lat2|cck
 - =980 \\\$a9/28/2010 12:00:00 AM
 - =980\\\$b6
 - =980 \\\$f707
 - =980 \\\$g1
 - =981 \\\$a lat2|cck
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- =LDR 0000nam a2200000Ia 450
 - =008 110513s9999\\\$x\\\$000\0\und\d
 - =245 \\\$aDINAMICAS INTERCULTURALES EN CONTEXTOS (TRANS)ANDINOS.
 - =260 \\\$aCEPA.VLIR.UOS.
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 - =980 \\\$a9/28/2010 12:00:00 AM
 - =980 \\\$b15
 - =980 \\\$f707
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- =LDR 0000nam a2200000Ia 450
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 - =100 \\\$aLANZA L., Cecilia.
 - =245 \\\$aANOS DEL DESCALABRO. DIARIO INTIMO DE UN PAIS INCIERTO...
 - =260 \\\$aEd.Gente Comun.
 - =945 \\\$1 lat2|cck
 - =980 \\\$a9/28/2010 12:00:00 AM
 - =980 \\\$b14
 - =980 \\\$f707
 - =980 \\\$g1
 - =981 \\\$a lat2|cck

After loading in ILS

Millennium Acquisitions - UC San Diego - Geraldo, Cynthia - o11473393

File Edit View Go Tools Admin Help

Orders

Insert Save View Edit WB Summary Browse Export Vendor Print Close Fund

Millennium

Orders

Claim/Cancel

Send

Rapid Receive

Invoice

Import Invoices

Funds

Fiscal Close

Vendors

Selection List

Foreign Curr.

Change Eprice

Create Lists

Statistics

o11473393

Summary Record o11473393 Receive o11473393 Payments o11473393 0 Bib-Level Holds

Queue P.O.

o11473393 Last Updated: 05-17-2011 Created: 05-17-2011 Revisions: 1

ACQTYPE(O)	p PURCHASE	RENEWAL		RDATE	-
LOCATION	ck Geisel Library	E PRICE	\$19.00	RLOC	c CUL MONOS
CDATE	--	FORMAT(O)	p PRINTED	BLOC	c CUL MONOS
CLAIM		FUND	lat2 Latin Am Stds Mono	STATUS	o ON ORDER
COPIES	1	ODATE	05-17-2011	TLOC	p P.O. PRINTED
CODE1		ORD NOTE		VENDOR	librn LIBROS ANDINOS
KEYER	b SA	ORD TYPE	c DIRECT ORDER	VOLUMES	1
CODE3		RACTION			

o11473393

start Help and ... EDIFACT... EDI softw... Excel to M... MarcEdito... irunner.exe Millennium... Search Desktop My Computer 100% 9:38 AM

Shortcomings of Excel approach

Not really electronic invoicing – as full EDIFACT Data is not transmitted

Libraries need to “receive material” and adjust for tax and shipping

Does not support filing indicators.

Diacritics don't come across.

Very brief records – but enough to pay on it.

Works best with approval books

Firm orders will usually have order records in the system.

Invoice data less complete than order record (if it came from OCLC)

Need a match point (e.g. PO number) to overlay existing order records with invoice information.

Conclusions

- Libraries are under increasing pressure to reduce costs associated with acquisitions and cataloging
- Staff have been reduced or repurposed to other projects
- We are encouraged to use vendors who provide services – even if it means paying a little more for them
- Vendors with these services will get our business

QUESTIONS?