
The User Whisperer

How the Business Analyst role helped slay a 20-year-old enterprise software system.

IIBA Pittsburgh, April 2019



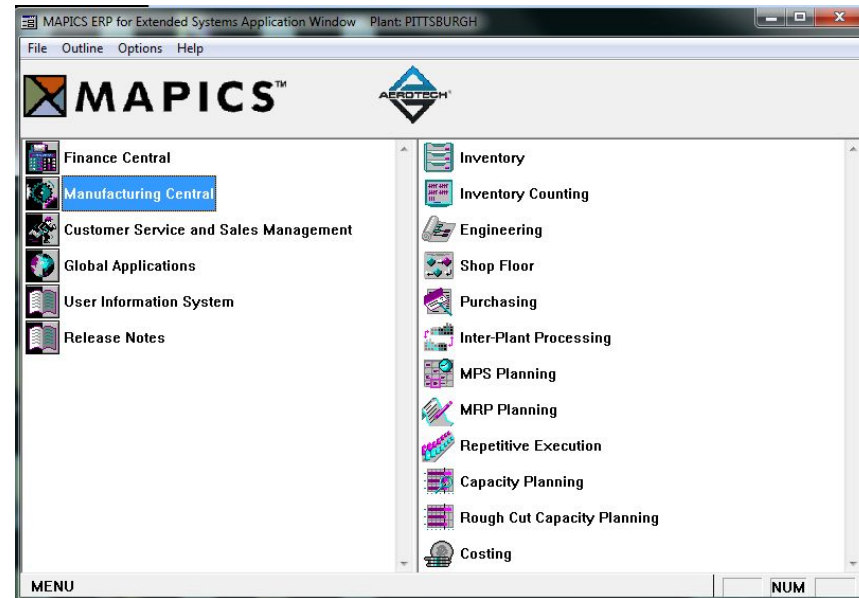
Agenda

- Intros
- Background
- Problems
- Solutions
- Outcome
- Evolution
- Q & A



Project Background - The Legacy System

- Point.Man (now owned by Infor*)
- Original go-live: 1996
- Last update released: 2003
- Last supported OS: Windows Server 2003
- Last supported DB: Oracle 9i
- Number of technical support agents: 2





Project Goal - Migrate to a New System

- Epicor ERP
- Six month selection process with outside consulting firm
- Project start date: July 2015
- Original go-live target date: April 2016
- Top priorities:
 - Improve scheduling/planning
 - Improve quote to order



Microsoft®
.NET



Microsoft®
SQL Server®

EPICOR® 4

Problem 1 - Time to Resolve



Enterprise Resource Planning / ERP-4458

Financial Statements in Epicor need to be improved

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Details

Type:	Development	Status:	RESOLVED
Priority:	High	Resolution:	Completed
Affects Version/s:	None	Fix Version/s:	October 2017
Component/s:	Accounting		
Labels:	XLConnect		
Deployed:	True		

People

Assignee: **Abe L.**
[Assign to me](#)

Reporter: **George W.**

Testing Assignee: **John A.**

Votes: [Vote for this issue](#)

Watchers: [Stop watching this issue](#)

Description

Financial statements in Epicor are difficult to run and sometimes don't work at all. See [John A.](#) for more details.

Steps to Verify:

- 1. Open Excel
- 2. Click "Epicor XL Connect" tab.
- 3. Then Click "Epicor XL Connect" on 2nd Tool Bar.

Dates

Created:	2017.03.22 01:32 PM
Updated:	2017.10.13 06:08 AM
Resolved:	2017.10.12 04:18 PM

Activity

[All](#) [Comments](#) [Work Log](#) [History](#) [Activity](#) [Emails](#) [Transitions](#)

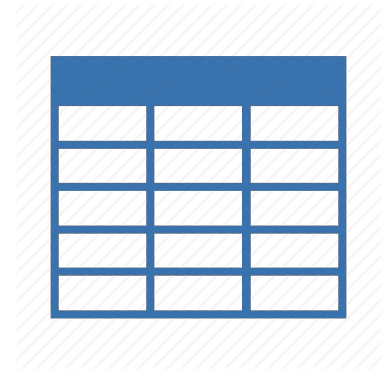
112 older comments



Problem 2 - Uncoordinated Developments

E.g., How should we notify users of a sales order change?

1. JIRA issue update
2. Email notification
3. JIRA issue update and email notification
4. Custom data field and corresponding dashboard
5. Automated query and data file export
6. Drive file upload



Jira

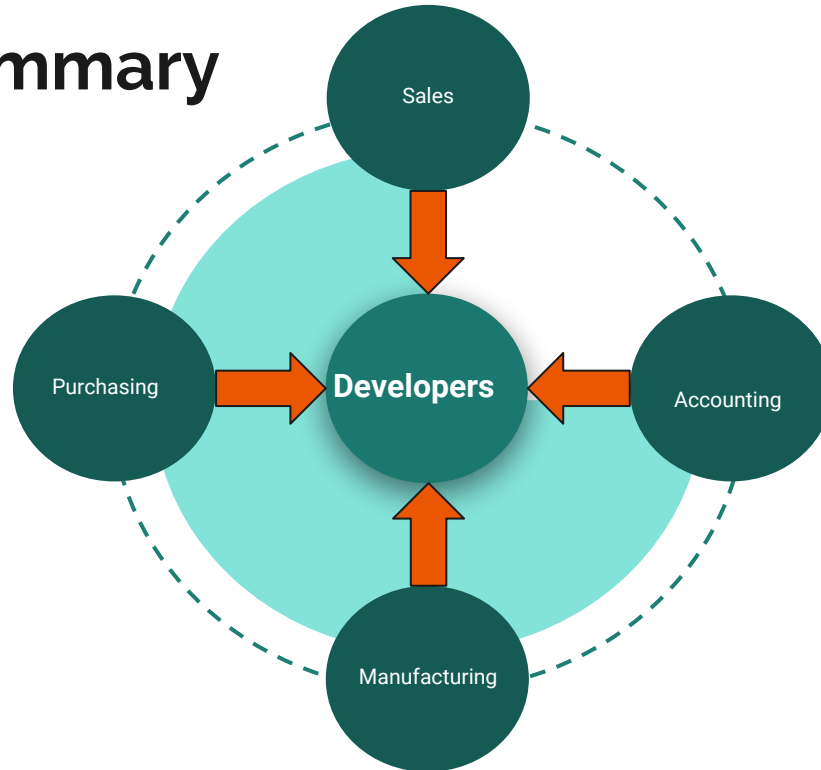
Problem 3 - Arbitrary Prioritization

What should we do next?

1. Whatever the loudest screamer wants
2. What sounds most important (to the dev team)
3. What seems like the most fun (to the dev team)
4. What is easiest to understand and act on
5. Flip a coin...



Problem Summary



Solution: BA as the Gatekeeper



Solution - Better Requirements Gathering

- What is the problem?
- Who are the stakeholders?
 - Users
 - Decision-Makers
 - Who else will be impacted?
- What is the top priority? What are the Nice To Haves?
- What is the timeframe?
 - ASAP = whenever
- Generally an iterative process





Solution Example - Interface with Purchasing

Before:

Description

Problem Description

Purchasing desires to consolidate their operations into one central location. In addition, there are several metrics from Pointman days that need to be calculated and provided to Purchasing.

Detailed Requirements

1. TBD

After:

Description

Problem:

the Purchasing group needs a dashboard to display information about purchased parts including the information calculated by the process defined in [ERP-9600](#) and the UD fields defined in [ERP-8998](#).

Detailed Requirements:

Must Have:

1. Dashboard menu item called **Purchasing Dashboard**
2. This Dashboard should be deployed in the Maintenance Menu and be accessible to everyone in the groups **Purchasing Operations**, **Purchasing Manager** and **Executives**.
3. Only the fields listed as updateable in the description below should be updateable. all others are read only
4. Results should contain only parts where **Part.TypeCode=Purchased**.
5. Filters in an advanced search pane
 1. Part from **Part.PartNum**
 2. Buyer from description of **PartPlant.BuyerID** OR **PartClass.BuyerID**. Show results where the value selected here matches either **PartPlant.BuyerID** or **PartClass.BuyerID**.
 3. Part Class from **PartClass.Description**
 4. SupplierID and Name from **Vendor.VendorID**
 5. Type: Purchased, MAnufactured
 6. Planning Status: three checkboxes. When one or more is selected, show only entries where those respective UD fields are TRUE. If none of those are selected, show all results.
 1. Overplanned
 2. UnderPlanned,
 3. Overstocked
6. Columns in main grid view
 1. Part from **Part.PartNum**
 2. Part Description from "VendPart.*PartDescription
 3. description of **PartPlant.BuyerID** called Part Buyer
 4. description of **PartClass.BuyerID** called Part Class Buyer
 5. Part Class from **PartClass.Description**
 6. SupplierID and Name from **Vendor.VendorID**
 7. On Hand from **PartWhse.OnHandQty**
 8. On Order calculated from sum of **PORel.*RelQty** where **Status=Open** and **PODetail.PartNum** is equal to the selected Part
 9. Demand from **PartWhse.DemandQty**
 10. Safety Stock from **PartPlant.SafetyQty** (updateable)

Purchasing Request



Purchasing Dashboard.xlsx

File Edit View Insert Format Data Tools Add-ons Help Last edit was on March 28

100% \$ % .0 .00 123 Calibri 11 B I S A

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	Purchasing Dashboard															
2	Open POs						Shortages					Expedites				
3		Late	Due Today				P/N	Aerotech Required Date	Qty Required	W/O	S/O	P/N	Aerotech Required Date	Qty Required	To cover SS?	To cover demand?
4	Supplier															
5	Date Range						<i>Text field to include updates viewable to other depts.</i>					<i>Text field to include updates viewable to other depts.</i>				
6							*Be able to update promise & due dates from dashboard*					*Be able to update promise & due dates from dashboard*				
7							*Include PO & release info, and ability to change respective dates.									
8																
9	MRP											**Include LT=0 dashboard				
10		Late Ordering	Order Today											P/N	Description	LT
11		P/N	Qty	Order By Date	Due Date	OH	OO	Demand	SS	Supplier	Monthly Usage	Pricing				
12	Date Range						on on hand							*Change LT from this screen		
13	Supplier															
14	Buyer															
15	*Exportable document															
16	*Be able to issue PO from this screen															
17	*Incorporate a flag that notifies buyer when scheduled due date is different from LT in system, prompting LT update by buyer															

Purchasing Final Product

Purchasing/Planning Dashboard A.2

File Edit Tools Actions Help

Purchasing Dashboard Query

Advanced Search

Part

Buyer

Part Class

Supplier ID

Supplier Name

Planning Status Any

Planning Shortages

Open POs

Purchased Parts

Purchased Parts									
Part	Part Description	Part Class	Supplier ID	On Hand	On Order	Total Demand	30d Demand	Part Lead	
13497-88	Y AXIS RAIL, GR	M-Other Compon	10556	2.00		0.00	0.00	18	
13604-12	CONN BRKT, AN	M-Metal Work	10006	31.00		34.00	39.00	32	
13604-14	CMS BRACKET	M-Metal Work	10006	33.00		34.00	39.00	36	
13604-17	CMS BRACKET	M-Metal Work	10006	79.00		34.00	39.00	45	
13604-19	CONN BRKT, AN	M-Metal Work	10006	29.00		34.00	39.00	40	
13604-28		M-Metal Work		34.00		14.00	39.00	30	
13652-28		M-Metal Work		0.00		0.00	0.00	35	
13735-55		M-Other Compon		3.00		0.00	0.00	21	
▶ 13898-34	PRECISION WO	M-Ballscrews, Bal	10290	0.00	1.00	1.00	1.00	55	
13898-35	WORM GEAR: H	M-Ballscrews, Bal	10290	0.00	1.00	1.00	1.00	55	
13898-44	PRECISION WO	M-Ballscrews, Bal	10290	0.00	2.00	2.00	2.00	70	
13898-45	WORM GEAR: H	M-Ballscrews, Bal	10290	0.00	2.00	2.00	2.00	70	
14046-15	CONN BRKT, AN	M-Metal Work	10006	10.00		9.00	3.00	39	
14046-17		M-Metal Work		2.00		1.00	0.00	18	
14046-19	CONN BRKT, AN	M-Metal Work	10500	1.00		1.00	1.00	15	

Open POs by Part

Open POs					
PO	Qty	Due Date	Supplier	Received Qty	Open Quantity
▶ 306980	1.00	6/6/18		0.00	1.00

Purchasing Dashboard Suppliers

Suppliers Definitions

Suppliers				
Supplier	Supplier ID	Lead Time	Unit Price	Pri
▶	10290	55	1,060.00000	E



Requirements Gathering Workflow

1

Business Need

What is the driving factor or root of the problem and who is affected?

2

Functional Requirements

What should the user see and be able to do?
What are the inputs and outputs?

3

Detailed Technical Requirements

What does a developer need to know to make this happen

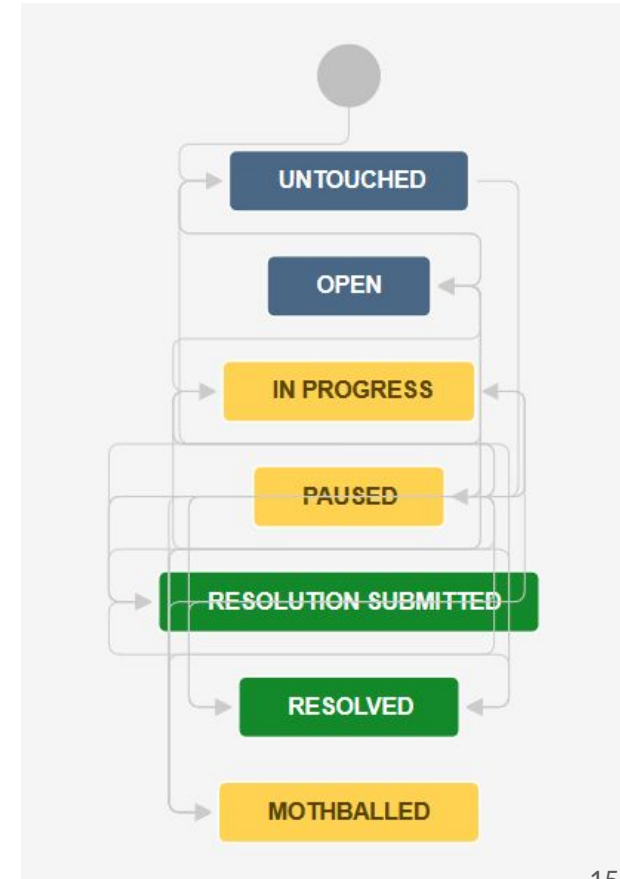
4

Prioritization and Organization

What is more or less important, which tasks have hard deadlines?

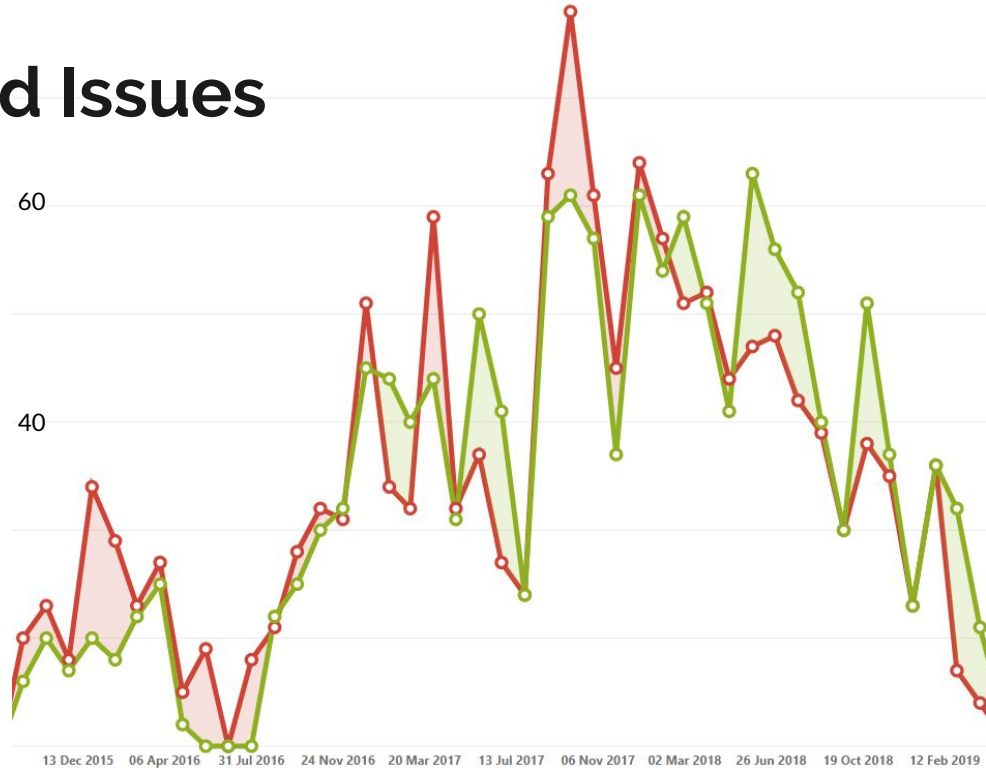
Development Workflow

- Defined steps specific to issues requiring Development resources
 - Executive, BA, or development manager approval needed before work can begin
- Business Analyst / IT responsible for some steps, Software Engineering for others



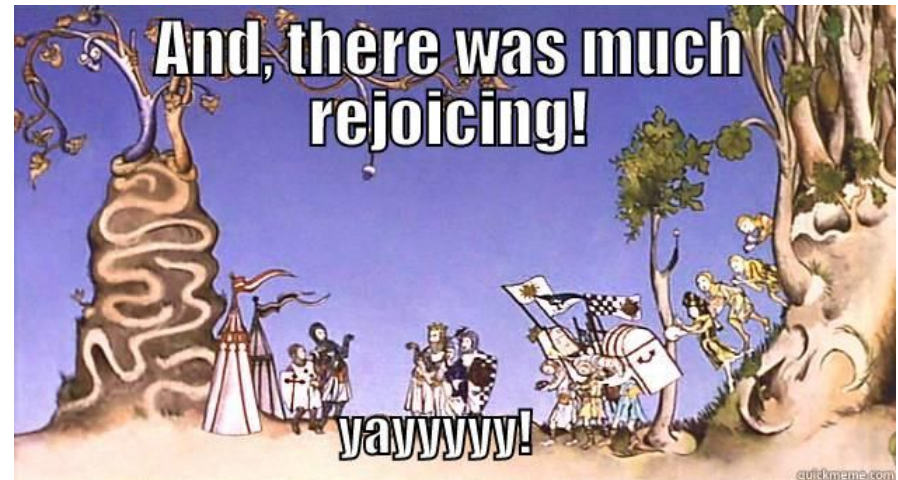
Outcomes - Completed Issues

	Before	After
Calendar Time	9 Months	36 Months
% of "High Priority"	46.5%	33.1%
Issues Completed	71	1034
Issues per Month	7.9	28.7



Outcomes - Go-live and Beyond

- Went live in September 2017
- Highest shipment quarter in history (Q3 2018) by \$
- Successful end of year processing for fiscal year 2018
- Highest shipment month (by volume) ever in February 2019
- First system upgrade scheduled for fiscal year 2020





Takeaways - Development

- Development resources are rare and valuable -- use them wisely
 - I.e., keep them focused on development and meeting clear requirements
- Be skeptical of proposed solutions (especially from users)
 - Define the underlying problem before establishing alternatives
- Ensure the proper decision-makers are setting priorities
 - Developers don't often have the perspective/authority to say 'no'



Takeaways - Attributes of a Successful BA

- Background or education
 - Computer Science / Engineering or other technical discipline
 - BA / MBA or business-related degree
 - Experience or education in other area of a business
 - Experience with software development tools and practices
- Personality attributes
 - No fear of technology
 - Willingness to interact with other people
 - Ability to see the other person's viewpoint
 - Relationships or experience with other people in the business



Evolution of BA

- Additional investment in Business Analysis resources with 2 new team members
- Broadened Scope of Business Analysis work:
 - Employee training
 - Research into new tools and technology
 - Business area and functional specialization
- “Masters of Change”





Questions & (maybe) Answers