



BizTechSherpa

Business Technology Advice for Business Leaders

ERP REQUIREMENTS PLANNING

Proposed ERP System: Jobscope

PREPARED FOR

Acme Widgets

David Howard

David@BizTechSherpa.com

www.BizTechSherpa.com

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SALES AND DISTRIBUTION

Interviewed:

- Anne
- Joe - Sales and the service manager
- Chris - Accounting
- Jimmy - Sales

SUMMARY

Sales and Distribution		
Master Data		
	<p>Customers/Business Partners <i>1200 total customers</i> <i>Will manually enter last three years customers</i> <i>300 customers – one billable and separate ship-tos</i> <i>Do not do hierarchical records now, should V&S – have same parent account with different branches.</i> <i>Sales will separate by geography</i></p>	Y
	<p>Customer Credit Master <i>New Customer:</i></p> <ul style="list-style-type: none"> • <i>Get reference Sheet from Customer</i> • <i>Do Experian Report</i> • <i>Check Reference</i> <p><i>Prior: Same + add historical performance</i></p>	Y
	Material Determination	Y
	<p>Listing/Exclusions <i>All word of mouth now</i></p>	Y
	<p>Sales Kits <i>None now. All manual with Darrell</i></p>	Y
	<p>Customer taxability maintenance <i>They do not collect sales tax. All exempt</i></p>	Y

Master Data Volume:

Customers: *300 initially and manually entered*

What Business Partner relationships do you have with your Customers?

- Sold-to: Yes
- Ship-to: Yes
- Bill-to: Yes
- Sales Rep: Yes
- Forwarding Agent: Maybe three times per year

SALES OF PRODUCTS

Do you have substitutions for products?

No – may go to a different vendor occasionally and the actual part # may be different. Anne does this. Sometimes she makes up a part #, such as with bearings. Jimmy thought maybe they should assign a part #. Sometimes a customer calls in and asks for the item again and can provide a PO # to search by.

Are there any products that you restrict sales to customers?

No.

Do you bundle products into Kits?

Yes – with brakes.

They do, and they are stocked that way on the shelf.

Do you have batch / serial # requirements?

Not doing this now, but would like to do that. Drives and Gear motors were mentioned.

There is a job # that is assigned to a crane. They can look at BOM to see what parts are used.

They cannot look up a part / lot # to see where it was used in multiple assemblies (for recalls, etc.)

They had one recalled item from a vendor in 15 years.

There is nothing in the system that allows them to suggest sell a replacement/upgrade based on who used it.

PRICING

Pricing		
	Price List	Y
	Customer Specific	Y
	Free Goods	N
	Discounts/Surcharges <i>Anne has a word document Price is always the same, but discount is applied or not.</i>	Y
	Sales Kits/BOM <i>Is priced by itself – not as a rollup of items.</i>	Y
	Promotions <i>They did do a shirt once.</i>	N
	Freight <i>Sometimes included (prepay and add) Sometimes a separate line item Collect (the customer account) Or customer does it all</i>	Y

Jimmy said that Jobscope will not price equipment (that will be done in Hookup); but spare parts will be priced on Jobscope. Hookup generates the BOM, and will push that to Jobscope.

They may have one contract and sell /track multiple jobs in the system.

Is there any standard Expiration on Quotes? Any exceptions

There is 60 day expiration on quotes.

How is price entered (manually / automatically)? Ever overwritten?

Spare Parts - Always manually entered. Anne looks it up and marks it up (Cost plus). She gets cost from vendors for non-stocked items. For stocked items Microshop is not accurate. She may call or email the vendor for a price. Both stocked non-stocked items have a price assigned.

*Different products get different markups. **Examine this more***

Dave specifies that and provides in a Word document.

Anne or Rosie, or Karen, sometimes Barb does pricing.

What are your most common methods of pricing products? Pricing parameters (scale based, date efficiency, etc.)

- *Hook up*
- *Spare parts – Cost plus Markup, then discount for customer.*
- *Customers may have a specific price list.*

4 Areas:

1. *Job*
2. *Components*
3. *Spare Parts*
4. *Service*

Do you impose a certain profit margin? If yes, by product? Product group?

They can sell at a loss now.

Do you do any pricing blocks?

No

Any Rebates given to customers/vendors?

No – But Jimmy thought they should.

SALES REPS/COMMISSIONS

How many sales Reps do you have?

- *Pay-rolled? They have 8 pay-rolled sales reps*
- *Independent / Mfg Reps: They sell some parts/assemblies through a distribution channel*

Is commission established at order entry? Split Commission?

- *1% on everything except Aluminum (AL) which is 2%*
- *Service is something else*
- *Commissions are split up to 3 ways, but normal is 1, and 2 is often used.*
- *All commissions are for employees, but there is a finder's fees used occasionally.*

How are they determined?

Not Asked

SALES SUPPORT

Sales Support		
	Promotions	
	Customer Service Center <i>There are brochures on the website.</i>	Y
	Call Tracking <i>No – but they want to If they do a show they come back and put that in ACT!. They may follow up in ACT! Only Darrell uses ACT!; does not run on some machines</i>	Y
	Leads/Opportunity Management <i>All done in ACT! now.</i>	Y

SALES TRANSACTIONS

Sales Transactions		
	Order Entry	Y
	Credit Management	Y
	Available to Promise <i>Anne looks it up manually They have a tag list for items in transit for them. Have to manually call vendors for parts.</i>	Y
	Delivery/Transportation Scheduling	
	Item Proposal <i>There are no proposal documents generated; Anne should do these in Jobscope.</i>	Y
	Cross Selling <i>Not done now – varies in service.</i>	N
	Taxes	
	Foreign Trade – Customs <i>Do not sell overseas very often Tracked in US dollars Just plan for customs to Canada and Mexico Have to generate: Commercial Invoice and NAFTA document (Certificate of Origin) Packing List</i>	N
	Inter-company Orders	N
	Sales Kits/BOM	
	Sales Inquires	
	Sales quotations	

	Sales Contracts	
	EDI Orders	N
	Consignment Sales	N
	Third Party Orders (Drop Shipments) <i>Spare Parts, some equipment</i>	Y
	Service Orders	N
	Down Payments <i>All the time – not on service or parts, but on components and cranes</i>	Y
	Returns	Y

How do you establish the date at which the order is going to ship? Normal Lead time?

*Parts are quick – Anne quotes right up front, same for service
Brian schedules cranes.*

Do you check different DC's to determine where product will ship form? What kind of inventory is included in the Available to Promise (ATP) check?

Just one Facility.

Any ATP rules? (no backorders, Fill or Kill, split shipping, etc.)

Parts – all of these can happen. Can be ok to partial, or must be all one shipment.

Is credit checked at time of order entry and again at time of shipping? What criteria is checked?

*Customer may be on credit hold from AR process
Anne looks at Credit limit and may see message.*

Is the method of shipment established at order entry? How is it determined?

Usually established at order entry

International requirements?

Internet Sales (Business to Business)		
	Product Catalog	N
	Order Entry	N
	Order History	N
	Invoice History	N

DELIVERIES

Delivery Transactions	(All of this is via email now and a manual process)	
	Delivery Due List (Delivery Creation)	Y
	Picking	Y

	Packing	Y
	Shipment	Y
	Route Determination	Y
	Batch Determination/Strategy	Y
	Serialization	Y
	Express Carrier (Fed-EX, UPS)	Y

How are deliveries transferred to the warehouse?

For spare Parts – Parts orders are in a color coded folder; she physically walks the folders out there. Anne uses red folders.

Brian, the production manager, also has folders.

At the warehouse, how is the list of orders that needs to be shipped determined (Priority, shipment method, other criteria?)

Anne specifies and it is in the folder.

Also tracked on a dry erase board in the shipping office area.

Do you print pick tickets (how often, what triggers the print?) and if so, how are they organized? Do you consolidate orders in to one shipment?

They get a work order; Current system does not generate packing list

Cranes, kits, and components do generate a pick ticket.

Do you handle shipment with future dates? (Staging process)

Sometimes have a crane that has to ship at certain times, but these are separate jobs.

Any packing requirements?

No; but some items have to ship on a flat bed, such as a Dehoist.

Any special shipping documents processes (labels, customer specific shipping requirements, etc.)?

See International

Also included in ship to address or Comments.

Do you have different areas that you ship from (loading docks that ship different material?)

No

At what point to do you calculate freight / determine the carrier/method?

For parts – the customer specifies and is known at order creation

They call shipper for large items.

BILLING

Billing Transactions		
	Billing Due List (Invoice Generation)	Y

	Rebate Processing	N
	Payment Cards	Y
	Billing Plans <i>Progress payments; at ship, etc. Milestone payments.</i>	Y
	Resource Related Billing <i>For service – they bill people. Is part of job and can be T&M, or Not to Exceed.</i>	Y
	Credit memos	Y
	Debit memos	Y

Do you use centralized / decentralized invoice processing?

All are done at HQ

Different invoice formats for different customers

All the same, but the current system does require some hand types invoice.

Service can be invoiced a couple of weeks after.

Ever re-calculate pricing at time of invoice? Consolidate orders into one invoice?

Yes; for service.

They consolidate dummy invoices, but these should go away with the contract.

MATERIALS MANAGEMENT

Materials Management		Y
Master Data		
	Material Master (stock and non-stock goods)	Y
	Vendors	Y
	Info Records	?
	Source Lists <i>They have vendors associated with parts, but only 1 Raw materials are numerous vendors and they quote it out for order to many.</i>	Y
	Material taxability maintenance	N
	Purchase Order Release Strategy (Order type , Purchasing Group, Value) <i>All the same process except UCC (The Indian vendor they own). For them they do a PO, then create one in Excel so they can email. Microshop does not support emailing POs.</i>	N

MASTER DATA VOLUME INFORMATION

Materials:

- FG: None tracked.
- Raw Materials: many in the item master, a few thousand, but not all are used.
- Subassembly Dozens – maybe 150.
- Other: ?

Chris: *Ledger wise there are no FG, is al WIP or raw material.*

Vendors:

Inventory: 75 or so high volume, Obscure.

Administrative_____

About 50/50 between inventory vendors and admin

Requisition-Administrative Purchasing		
	Purchase Release Strategy	N
	Source Assignment	N
Requisition-MRP Driven		
	Source Assignment	Y
	Assign and Process	Y
	Convert from MRP List	Y

REQUISITION PROCESS

What is your requisition process for Inventory Items?

- See Visio (Appendix 2)
- Barb is not told lead time on critical item report
- Order on about 40-60 POs per week for raw materials
- Maybe ten per week for shop supplies

Is there an approval required? How is the approval communicated?

If Over \$2,000 Chris reviews.

What is your requisition process for Administrative Items?

The other Chris (Chris O'Neill) does these. –

Is there an approval required? How is the approval communicated?

No - not large orders

RFQS

Do you do RFQs?

Yes for steel and rail. They send to 4-5 vendors. There is a 1-2 day turn around for the quote.

Request for Quotations		
	Convert from Requisitions <i>Not done electronically now</i>	Y
	Outbound RFQ <i>Yes – Sent now in Word template</i>	Y
	Inbound Quotation <i>Comes via email or fax now</i>	Y
	Convert to PO <i>Done manually now</i>	Y

How do manage Request for Quotations?

All manually

Is any of the information system generated?

It comes from work orders as "Purchase Materials", and request from shop

They also send out for service for machining, they have 2-3 vendors for that. This is maintained as WIP.

BLANKET CONTRACTS/AGREEMENTS

Do you have any BPAs?

BPAS - They have these with bearing company where they blanket order a specific weight, and air hoses. They do not have any consigned inventory from vendors.

These are all ordered the same way as other items. The system does not tell them of the annual obligation.

Contract/Scheduling Agreements		
	Convert from Requisitions	Y
	Value Contract	Y
	Quantity Contract	Y
	Release Order	Y
	Delivery Schedule	Y

What is your process for managing Contracts, Blanket Orders, or Scheduling Agreements?

Stored at Acme Widgets, and reviewed periodically. Vendors remind them of needs.

Is there an approval required? How is the approval communicated?

Same as other orders

PURCHASE ORDERS

Purchase Order Management		
	Convert from Requisitions	Y
	Automatic PO Processing	Y
	Purchase Order Release	Y
	Subcontracting	Y
	Third Party Orders	Y
	Vendor Consignment	N
	Stock Transport Orders	Y
	Service Orders	N
	Vendor Analysis	Y

What is your process for generating Purchase Orders?

What types of Purchase Orders do you create?

Just from MicroShop, and the UCC in Excel.

Would be nice to do a PO in euros and track as dollars internally

What is the volume of orders created per week?

- Purchase Orders for Inventory?
 - How do you maintain the Price (cost) per Item/Vendor?
 - *Yes – and changes when an order is received at a different amount.*
 - Do you require your vendor to send you confirmations or ASN's?
 - *Yes – sent via Fax or email now.*
 - *Is EDI required? – Has not been required so far.*

- Subcontract Orders?
 - For service
- Third Party Orders (drop ships)?
Yes – and they markup but it never becomes part of inventory. A part number with a Pound sign is not tracked in inventory.
- Vendor Consignment Orders?

No

- Purchase Orders for Services?

No

- Administrative Purchase Orders?

Yes

Is there an approval required? How is the approval communicated?

How do you create inter/intra-company transfer orders?

N/A – not used.

What is the process for transferring the goods from one location to another?

No

Do you evaluate your vendors' performance? If so, what criteria do you use?

Yes - Ontime delivery, quality of product, and non-conformance,

LANDED COSTS/SHIPPING

Landed Cost (Import Goods)		N
	Planned Delivery Cost (Freight, Duty)	N
	Unplanned Delivery Cost (at Invoice)	N
	Goods on the Water Valuation	N
	Commodity Codes - Export License	N

How do you handle Delivery Costs?

Expense them as freight in and out, ocean freight, and air freight

- In the Purchase Order – *Not as often*
- At Invoice – *most of the time*

Do you take possession of goods when they are on the water?

No

Do you have visibility of goods in transit?

UCC tells them the container left, and the container #, but they do not track

INVENTORY VALUATION

Inventory Valuation		
	Last Cost	Y
	Standard Cost	N
	Moving Average Price	N
	Actual Costing	N
	LIFO, FIFO Periodic Processing	N

They would like to use Actual cost for each item.

How do you value your inventory?

- Finished Goods? - No
- Sub-Assemblies? - Yes
- Raw Materials? - Yes

INVENTORY TRANSACTIONS

Inventory Transactions Per Day		
	Goods Receipt (20 per day)	Y
	Goods Issue	Y
	Transfer Posting	Y
	Special Stock - Sales Order Stock	N
	Special Stock - Consignment	N
	Special Stock – Subcontract (4 per month)	Y
	Special Stock - Quality Inspection	N
	Dispositions (Scrapping) <i>Very little</i>	Y
	Return to vendor (3-4 per month maximum)	Y

What is your process for receiving Inventory Goods?

- *Receiving area opens and inspects case, check off items on packing list.*
- *There is a problem because boxes in case are not opened and inspected, and an issue may not be noted until weeks later when the item is used in the job*
- *The receiving person runs the receipt.*
- *The packing list with the receipt register comes into the office.*
- *Some items, such as motors, should not be received unless every item is opened and inspected.*

What is your process for receiving Administrative Goods?

This is received in the office, similar process as receiving area.

How do you receive and issue goods that are transferred from one location to another?

N/A

Do you have consignment stock?

NO

How do you track what is in consignment?

N/A

How do you move inventory out of consignment?

N/A

How do you account for inventory sent to subcontractors?

WIP

Do you have any inventory that is customer owned?

Yes – the customer may supply items, such as hoist. There is nothing tracked for these in the system. They do place a tag on the item. At inspection they collect serial #s, etc.

How are goods received that require inspection?

Right now nothing happens, but item should be flagged. These items always have a serial #.

What is your process for Returning goods to the vendor?

They inform vendor, get RGA, and then ship back. There is no automated way to ensure they get credit from the vendor.

INVENTORY TRACKING: BATCH/LOT/SERIAL NUMBERS

Cross Functional		
	Serial Number Tracking	Y
	Batch/Lot Tracking	Y

What is your process for assigning Lot/Batch Numbers to incoming items?

Just the UCC hoists.(the tag #s)

Are any of your items Serial Number controlled? How and when do you assign Serial Numbers?

N/A – but they do have the job #

MRP PROCESS

Consumption Based MRP		
	Material Forecast	

	Manual Reorder Point Planning	
	Min/Max Planning	
	Manual Safety Stock	

What is your MRP process for Raw Materials?

- Reorder Point Planning (Manual or Automatic) = *No*
- Historical Forecast Based = *No*

How do you analyze the results?

N/A

Do you do automatic replenishment from the main warehouse to other inventory locations?

N/A – only one location.

WAREHOUSE AND INVENTORY MANAGEMENT

Warehouse Management		
Master Data		
	Storage Types	N
	Bins	N
	Pick/Putaway Strategies	N
Transactions		
	Transfer Requirements	N
	Transfer Orders	N
	Bin Replenishment	N
	Physical Inventory	N
	Mobile Data Entry	N

They would like more automation in the inventory and warehouse management /replenishment area

How do you manage inventory at the Bin level?

No

Do you use Pick Strategies?

No

Do you use Put-away Strategies?

No

Do you use interim (virtual) locations for goods that have been received but not put-away?

No

Do you use interim (virtual) locations for goods that have been picked but not shipped?

No

How do you transfer goods from one bin to another?

No

Do you use automatic replenishment from bulk storage to fast moving locations?

No

Do you use RF scanners in the warehouse? For what type of transactions?

No

How do perform physical inventory (cycle counting)?

- They cycle count manually.
- Physical is twice per year, with a full one in January.
- Employees get a group of tags, and they make tags for each bin and bring one back with the qty and item #. No real location.

Do you do empty bin checks during picking?

No

PRODUCTION PLANNING AND EXECUTION

Manufacturing

Design to Release

- * Engineering
- * Plan to Schedule / Produce
- * Forecast to Plan
- * Schedule to Build
- * Product Costing to Inventory Valuation
- * Plan to Replenish
- * Inventory Count to Reconciliation

Attendees:

- Anne
- Brian
- Barb
- Chis
- Bunna
- Alex

Production Planning		
Master Data		
	Work Centers	Y
	Resources	Y
	Routings (through work orders)	Y
	Production Versions <i>They maintain Product types and codes They change the part # and Model # on new or updates assemblies Part # is associated with a model #</i>	Y
	Master Recipes	N
	Bills of Materials	Y
	Product Groups There is a field in the item master called the "Item class"	Y
	Production Resources and Tools <i>Floor stock: Welding wire, some electrical parts, and two by fours for crates. They use a requisition book for this.</i>	Y
	Capacity <i>Every work center has an available hours associated with it. Every work center they can assign people to. They have about 9 (nine) work centers. When labor was light, they did not have enough to support all work centers.</i>	Y

MASTER DATA:

How many BOM's?

Almost as many as there are items – in the hundreds.

How many Work Centers?

They have 5 now, may go to 11 with the new expansion in late 2011

Do you have multiple or alternative BOM? They copy BOMs and use them. They do not change the master BOM, just the item numbers in the work order.

Do you have unique routings for each assembled item?

Each assembled item does not have the same routing.

We need to check this in the system.

Do you track capacity?

They track weekly in Excel. No connectivity to other systems

How many shifts do you operate?

1 Shift

Cross Functional		
	Classification	Y
	Document Management <i>(Laser Fiche)</i>	Y
	Collaboration Folders They have a physical file for orders; color coded for the work centers. Goes from Sales to Engineering, then changes color Last color is black folder – is laserfiched as the final version of that product.	N
	Project Management <i>Product type for anything that goes into manufacturing. Everything in a work center has hours associated in it. All project plans are in an Excel sheet. This is called the "Shipping Schedule"</i>	?
	Engineering Change Management Source: Sometimes customers request changes; sometimes the shop floor.	Y
	Revision Control <i>They put a revision note on a document, and they delete the first one. These are. Drawings generally do not have a BOM ID# on them; sometimes they do.</i>	Y
	Serial Number Tracking	Y

	<p><i>They do not but they would like to for vendor products. The job # is the serial # for their products.</i></p> <p><i>They document serials numbers for some products, and need the serial numbers from vendors. These are tracked in Excel now and placed on the QC sheets (these are in laserfiche)</i></p>	
	Batch/Lot Tracking	N

Do you use characteristics to classify products?

- Finished goods: Yes - *Weight bearing*
- Raw Materials: Yes, *for length, etc.*

Do your item #s have human readable factors for those familiar?

Yes – Look at this further

Do you need to be able to view electronic documents from within your ERP system?

Yes

Current Document Management System?

LaserFiche

ENGINEERING DOCUMENTATION, CONTROL, AND PROCESS

What tools do you use for engineering design?

- *AutoCAD for simple items*
- *Solidworks*
- *Hookup app (custom developed app they own)*
- *SEW Eurodrive – vendor supplied app for programming the drive motors.*

Do you tie these documents to any database or versioning system?

Just stored in a folder, but file name tells job #.

If they send to engineering documents to customers, how do they send?

Via email as PDF or original file format

What is your Engineering Change Management process?

See above

How does it interface with ERP?

Does not now. They would like it to tie.

Bunna wants an easy to search database by keyword or substring of the product name.

They may want to change product descriptions as part of the data migration.

How is the revision level assigned?

Assigned by Bunna.

PART NUMBER VERSIONING

Do you roll part number when changing form, fit or function?

They just have end trucks, hoists, etc. in finished goods that are kept on stock. Minor changes for this or selling for less than the rated capacity just gets a new sticker.

How and when are manufacturing lot number assigned?

N/A

Sales and Operations Planning (SOP)		
	Product Groups	N
	Disaggregation	N
	Plant/Product Level	N
	Transfer to Demand Management Work Centers	N Y

What is the process for entering/maintaining a Sales Forecast?

There is no sales forecast.

Brian has a production forecast.

Does the sales forecast differ from the Production forecast?

- N/A for sales forecast relationship
- Production forecast is by the work center (*I can have a bunch jobs with no electrical...*)
- They do very little formal forecasting; Edis uses the Crane Manufacturing Association of America's forecast, which is accurate but not very specific. Tells about single vs. Double girder, etc.; does not tell about special cranes, etc.
- Brian's forecast is for 12 weeks and total capacity (after 12 weeks)
- **I should see a copy of this.**

At what hierarchy is the forecast maintained?

- Item = No
- Customer - No
- Region - No
- Work Center = Yes

Do you aggregate Product forecast at a group level?

No

Do you maintain several versions of the forecast?

No

What version is used for MRP?

N/A

MRP STRATEGIES

MRP Strategies		
	Make-to-Stock w/Forecast	N
	Make-to-Order <i>The majority of the work is for this.</i>	Y
	Make-to-Stock <i>There is some of this, hoists can be this way to some extent but there is still some assembly required.</i>	N
Demand Management		
	Independent Requirements	Y
Material Requirements Planning (MRP)		
	Total Regenerative	Y
	Net Change (Total or by material)	Y
	Evaluation	Y
	Missing Parts Information System	Y
MRP Types		
	Deterministic Planning	Y
	Manual Reorder Point Planning	Y

What is your primary MRP Strategy?

- *This is not clear mainly because they do not keep a lot of inventory; all is made to order.*
- *Raw materials can be ordered when the job is engineered.*
- *The electrical parts are the main items kept in stock; there is min/max on these. Barb orders these off the "Critical List" each Tuesdays, This covers inventoried items. Not all inventoried items have stock on hand, some are 0 in stock and only ordered when needed.*
- *There are also purchase items.*
- *There is an "Extras list" of items in stock (purchased for other jobs that were canceled, but not maintained in inventory as an asset). These are kept in an Excel sheet and a whiteboard. .*
- *Average lead time is 6 – 20 weeks from approved drawings to shipment.*

Make-to-Stock (with or without forecast)

There is some of this, but not a lot.

Make-to-Order

About 5% is Make to Order

Engineer-to-Order

95% of orders are engineer to order

What types of planning parameters are used?

- Reorder Point/Min-Max/Safety Stock
 - For Inventoried parts.
 - The min/max is manually set based on historical usage
 - They review “every so often”, approximately annually.
- Deterministic (BOM explosion)
- Historic Forecast/Consumption

How often do you run MRP?

N/A

- In what mode? Total Regen? Net change?

What tools are used to validate the results?

N/A

CAPACITY PLANNING AND PRODUCTION EXECUTION

Capacity Planning		
	Work Center Load	Y
	Capacity Leveling (Finite)	Y

Do you measure or check capacity load at the work center level historically?

No formal measures; they do look at weekly basis and want 85% utilization (34 hours used)

Production Order Execution		
	Planned Order Conversion	N
	Production Order Creation	Y
	Release	N
	Availability Check – <i>not formally</i>	Y
	Picking - Goods Issue from Stock (Discrete)	Y
	Batch Determination/Strategy	N
	Automatic Rescheduling	N
	Receipt from Production (through confirmation or manual)	N

Note: *They work form when it is supposed to ship and work backwards when there is capacity, but when over capacity go from order to completion.*

What is your process for creating production orders?

- From MRP - No
- Manual - Yes

NOTE: *This area (Production scheduling) may be the one to gain the most from the new ERP or have the most pain).*

Do you check component availability during production order creation?

Not really; ordered as needed.

Are orders released to the floor with shortages?

Yes

Are any other checks made during production order creation?

Components and work centers

How are materials picked to production orders?

- Discrete – Hoists – kept on “tag list” in Excel sheet
- Backflush – most raw materials

How are lot/batch managed items assigned to production orders?

N/A

Do you automatically reschedule orders?

No - manually

How is the finished item processed into inventory?

Spare parts (mainly for AL). May take 5 part #s and make an assembly with a part #. Sold as a spare part. They use a “date work order” for these. When the work order is completed, the stock is reduced for parts, and increased for finished assemblies.

Are there any specific reports that are used in tracking production orders through execution?

*Updated Excel sheet - updated daily.
Barb sent a copy of the tag list to me as an Excel file.*

Order Confirmations		
	Time Ticket	Y
	Time Event	Y
	Order Level	Y
	Reprocessing (Errors)	Y

Are production orders confirmed at the operation level?

Not Asked

Do you record start and stops on each production level?

*Yes – they do track the dates. The operation should be closed out in ERP (Microshop) He manually does this.
They have time ticket work sheets. The employees(user) should close these but do not do that now.
He does have statistical results of how long tasks take.*

Do the individual operators do their own confirmations?

Not now.

Do you record actual labor time at each operation (or confirm at standard)?

Brian has 5 years of statistical data

They can create Work Order Cost reports, but is used more

QUALITY PLANNING AND INSPECTION

Ron White joined us here

They are ISO 9001, 2008 certified.

Quality Planning		
	Inspection Plans	Y
	Characteristics	Y
	Schedule	Y
	Quality Information Records-Procurement	
Quality Inspection		
	Inspection Lots	N
	Results Processing	Y
	Defect Recording <i>Before it leaves – results in rework; is tracked for cause and time</i> <i>Warranties – After they leave.</i>	Y
	Inspection Costs <i>Do track Warranty costs</i>	N
	Inspection Certifications <i>Are created through the work centers</i>	Y
	Inspection Notifications <i>Last inspection Ron does goes to accounting, who checks money, then to Brian, and then shipped.</i>	Y
	Statistical Process Control <i>They have measurements to measure the processes to make sure they are functioning within ISO 9001.</i> <i>Create Non-conformity reports.</i>	Y

What inspection steps are required during the production process?

Follows the routes; at each step it is inspected, then Ron does final inspection.

Who does inspections?

- *Box table: Operator*
- *Assembly: supervisor, fabrication, and Ron*
- *Electric: Supervisor and Ron*
- *Final: Ron*

Are individual results entered for each production order?

Yes for each order, must pass.

- Pass/Fail – all must pass.
- Qualitative (Individual test results with specific results recorded) – *Not used*

What happens when a failure is recorded?

If here in the shop – fix it.

If in the field, create nonconformity report

Do you record a usage decision at the end of the process?

Yes - because it is fixed and recorded as rework.

Less than 1-2% is rework

Less than .007% was warranty costs last year.

Are any certifications prepared as a result of the quality inspection?

Yes. – Ron does

At each process there is a quality form filled out by inspector(s)

Final inspection sheet is done by Ron

Are there any specific reports required in the analysis of quality in production?

Quarterly they do process measuring. Look at rework and warranty issues.

ACCOUNTING AND FINANCE

Interviewed:

- Chris Denison

GENERAL

What legal structure do you have (C – Corp, S-Corp, LLP, etc.)

S-Corp

What is your fiscal year?

1 Jan - December 31

Do you have multiple companies to track in the system?

They have one now, but may add the leasing company that owns the land, etc.

How do they roll up together?

They want to consolidate, but the outside accountant would do that.

Do you have Outside Accountants or Auditors?

Dempsey, Scheiman and Associates

How long are your GL account numbers?

4 Digits – may go to 5 or 6 (Jobscope Template is 9)

Is there any specific format in use? Any hierarchy?

- *Balance Sheet (Assets, Liabilities, Equity)*
- *Revenue*
- *Expense*

Are there any front end systems that would feed the GL? A specialized A/R or A/P system for example?

All done in Microshop, and all will be in Jobscope

How is Payroll done now?

Outsourced to Ahola

How is employee time recorded?

Using older system they should replace, considering Cleveland Time, and some others are options.

Is there a warehouse management system in place?

No

SUPPLIER INVOICES

How do you expect Invoices to be submitted?

Via Mail or Fax; sometimes attached to an email

Any use of EDI?

How are invoices matched to POs or Receiving Receipts?

Rosie in payables compares in a three way match.

How are invoices paid? What Means?

- *Credit Card*
- *Wire*
- *Check*

BUDGETING/PLANNING

How are budgets created?

There is no departmental budget created; they do some forecasting.

Do budgets ever get rerolled throughout the fiscal year?

N/A

How are actuals to budget compared and reported?

N/A

BANK STATEMENTS AND CASH RECONCILIATION

Who are your banks?

JP Morgan Chase

Do you do any electronic exchanges with them now?

She can log into a website and see accounts.

Monthly bank statement is electronic

Daily fax with transactions

What do they offer?

Do you have loan covenants that must be tracked?

Yes- very makeable and not an issue.

Any special reporting to the banks?

Just a monthly borrowing base report, sent via US Mail or drop off at branch

Do you have a check scanner?

Yes – Mfg by Panini

Do you have a drop box?

No

POSTING TO JOURNALS AND SUBLEDGERS

What common or regular journal entries are made?

- All payroll entries
- Cost of Goods Sold (Adjusted inventory monthly)
- Unearned Sales (billing that have not shipped)
- Prepays
- Interest
- Bank Fees

PERIOD CLOSE AND FINANCIAL REPORTING

What fiscal periods exist now?

Monthly

Do you have closing periods where the system is unavailable?

There are procedures to close monthly when everybody should be off the system. This takes about 2 hours.

How do you archive past data?

All data is in system since 1997; no archiving procedures for computer records.

How much data must be available online?

All of it

Do you have any special reports you run the business with?

- Excel for financials (income statement. Balance sheet, etc.)
- Excel Sheet for unearned sales
- Excel for Commissions
- Excel for 401k
- Excel for WIP
- Excel for Transaction with India
- Excel for Prepays
- Billing over 2000 – shows profitability per job

Also have spreadsheet for spare parts, service parts, income taxes (by state, only states they have employees in (about 5-6 states)

What tools are used now to create reports?

- Mainly Excel
- Some people use ACT!

ASSET MANAGEMENT

How do you track Assets?

Outside accountant does this.

How are assets depreciated?

N/A

UNCATEGORIZED/NICE TO HAVE

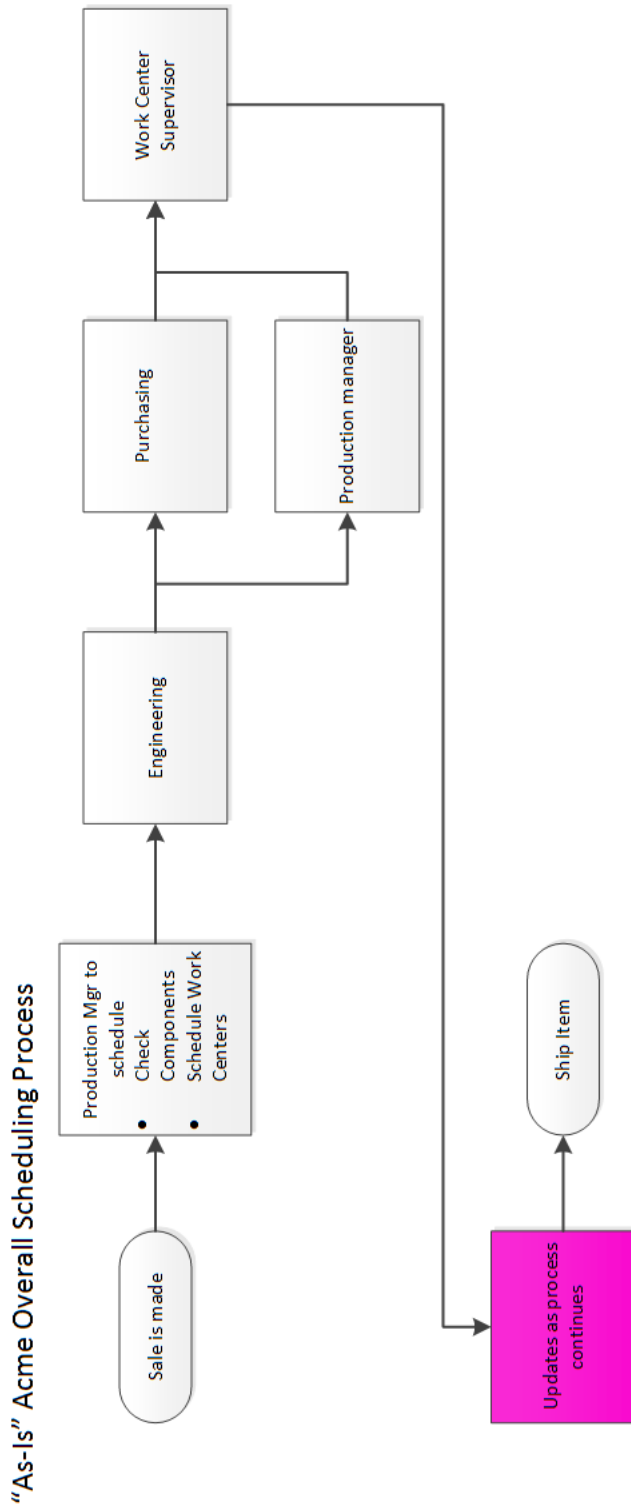
Jobscope to create weekly cash summation report that has the transactions, and then one transaction in the GL.

They do not interface any material statements in the material for GL.

They interface for receipts, but no in place for pick or ship;

For costing: Simplistic: Labor is at \$30 an hour, they do not do variance.

APPENDIX 1 – OVERALL SCHEDULING PROCESS



APPENDIX 2 – INVENTORY REPLENISHMENT PROCESS

“As-Is” Acme Order Process

