Quotation Management



Using Business Process Automation to Streamline Customer Quotes

MK&Associates

Value of an effective QMS System

"Each individual in an organization can increase their productivity by at least 30%. Most workers are not working on the right things in the right way."



"The main culprits include sub-optimized processes, excessive paperwork and reporting requirements, unproductive meetings, inappropriate systems and tools, etc."

- Tor Dahl, American Productivity & Quality Center
- "Automated workflow management helps speed the organization's response time and improves the accuracy of the communications and activities that result in the products and services that customers value."
- Imanet.org, Business Performance Management

QMS Adds Value

- Manage and streamline the <u>Process</u>, Eliminate <u>Wasted Effort</u>, Reduce the <u>Cost</u>
- Realize payback in the <u>first year</u>

Return on YOUR Investment

| Annual Sales Revenues Gross Profit % Cost of Goods Sold Park to | ademont F G | _ |
|--|-------------------------|---|
| 4 Annual Sales Revenues 5 Gross Profit of | Mainell | |
| Gloss Proft of | ayback Analysis | |
| 6 Cost of Goods Sold Breakdown 7 Material % | \$80 page | |
| Material % | 00,000,000.00 | |
| 8 Labor % | 15.00% | |
| 9 Overhander | 60.00% | |
| Lngineering / Tark | 15.00% | |
| 11 Average burdened compensation Percent of time on O | 25.00% | |
| Percent of the Periodion | 5 | |
| 13 Materials and Operations people Average burdened as Average bu | \$90,000,00 | |
| 14 Average burdened compensation Percent of time and operations people | 15.00% | |
| 15 Percent of time on Quotations | 2 | _ |
| 16 Finance / Cost Estimating | \$70,000.00 | |
| Average burdened compensation | 10.00% | |
| | \$70,000.00 | |
| 19 Purchasing | 50.00% | |
| 20 Average burdened compensation | 30.00% | |
| 21 Percent of time on Quotations | \$70,000.00 | |
| 22 Time Reduction Estimates | 10.00% | |
| 23 Quotations % | | _ |
| 24 Inventory Carrying Rate | 30.00% | |
| 25 Inventory turns (COGS) | 20.00% | |
| 26 Quote related Inventory reduction % | 20 | |
| 27 Administrative Costs | 1.00% | |
| 28 Number of Quotes per year | 300 | |
| 29 Average Administrative Cost per Quote | \$150.00 | |
| 30 | \$155.55 | |
| 31 Percent of Admin Cost Saved | 30.00% | |
| 32 Potential Savings Summary | | |
| 33 Engineering /Technical Professional Productivity Savings | \$20,250.0 | |
| 34 Materials/Operations Productivity Savings | \$4,200.0 | |
| 35 Finance / Cost Estimating | \$10,500.0 \$2,100.0 | |
| 36 Purchasing | \$13,500.0 | |
| 37 Quote Administrative direct cost savings | \$10,000.0 | 1 |
| 38 Shipping, Postage, Filing, Research, etc. | \$34,000.0 | |
| 39 Inventory Savings (Matl. Labor, OH) | \$84,550.0 | 0 |
| 40 Total Cost Savings | | |
| 41 Profit Potential | | |
| 42 Increased Profit Potential | | F |

Use an ROI Model to calculate your potential Return-On-Investment





Common Problems with Quoting

- ⇒ Estimating formulas are defined in spreadsheets often multiple different versions of spreadsheets, which are silos of information
- Quote approvals are frequently missed or bypassed
- Quote Due Dates are not tracked correctly and are frequently missed
- No good way to keep up with different Quote Options, Quote Revisions, and Quote Scenarios
- Management visibility to Quote status is limited to monthly reports (at best)
- Supplier RFQ's are not tracked with the Quote
- Supporting documentation must be found by "directory diving" for files
- Final Quote disposition is often non-existent
- Statistics and Hit Rates cannot be assessed
- The process needs to be streamlined and SHORTENED.

Business Process Automation

Applications that Link People, Processes, Data, Documents, and what's needed to Improve Business Performance



- √ Workflows/Rules
- √- File Support
- √ Automated Approvals
- ✓ Triggers and Notifications
- √ Backup Reassignments

- √ Web Based
- √ Infor XA Integration
- √ E-Mail Correspondence
- √ Performance Statistics
- √ Audit Trails/History

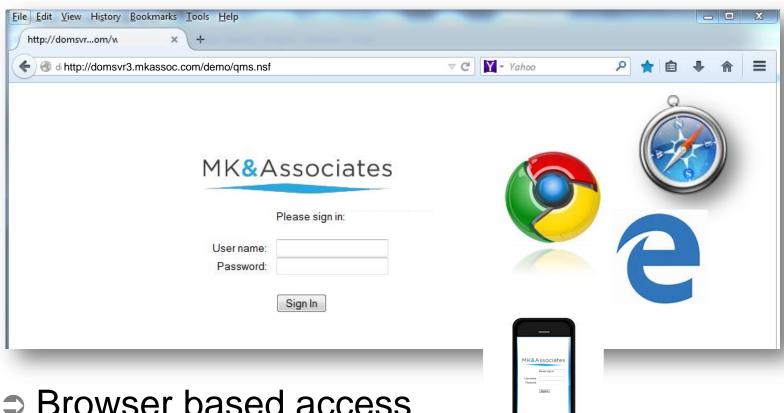
How does MKA's Business Process Automation help you improve performance?

- It's not just about "data." (Data is not very useful by itself.)
- EFFICIENCY is about being able to:
 - ⇒ Integrate or eliminate "islands of information"
 - ⇒ MOVE information and TRIGGER action based on business processes.
 - ⇒ automatically "route" data, information, messages to the right users
 - communicate effectively with everyone who needs information
 - ⇒ utilize electronic approvals/sign-offs
 - ensure that there are backups / follow-up
 - ⇒ manage <u>time</u>
 - manage priorities
 - measure your effectiveness
 - ⇒ create simple or complex forms and/or workflows
 - ⇒ automatically keep management "aware" without generating more paper
 - ⇒ provide visibility to EC's, quotes, programs, product development, tasks, ...
 - ⇒ get the <u>RIGHT</u> INFORMATION to the <u>RIGHT</u> people at the <u>RIGHT</u> time (eliminate "searching for information" and directory diving)

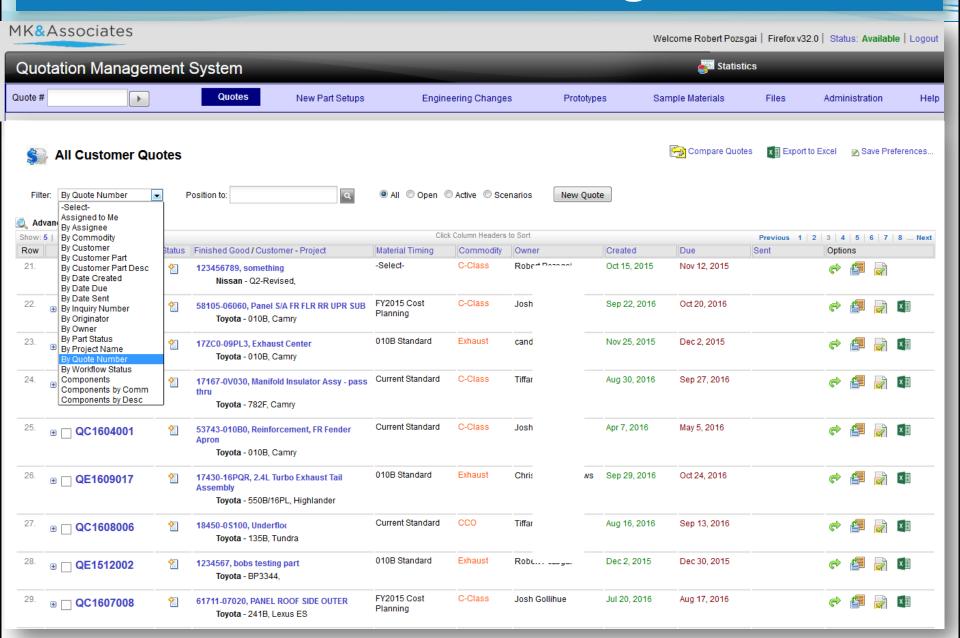
Typical Process for Quoting

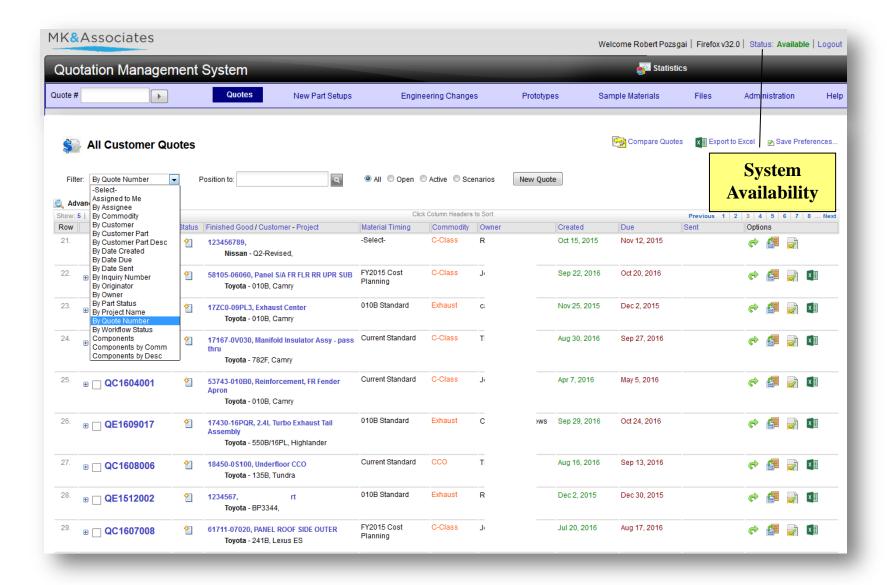


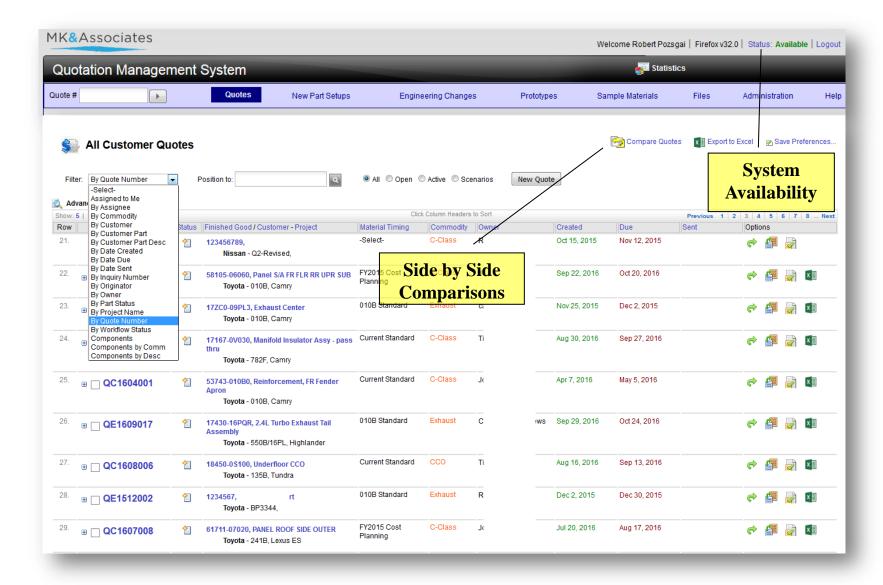
Getting Started...

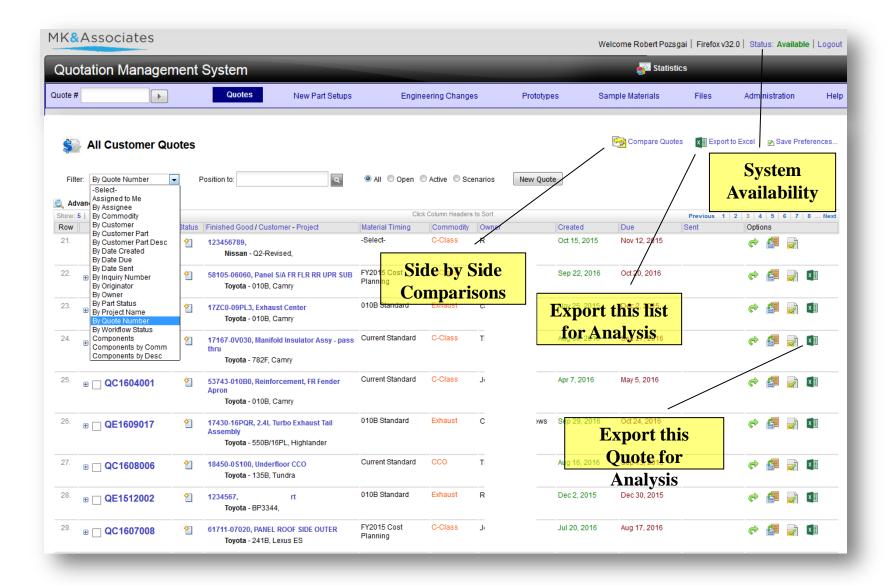


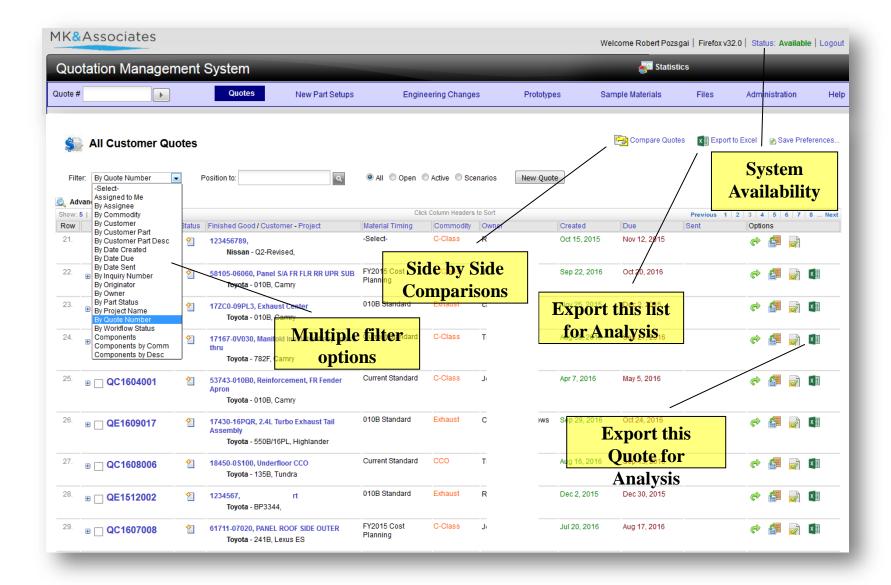
- Browser based access
- Secure authentication
- Supports MS Active Directory
- Multi-device compatible

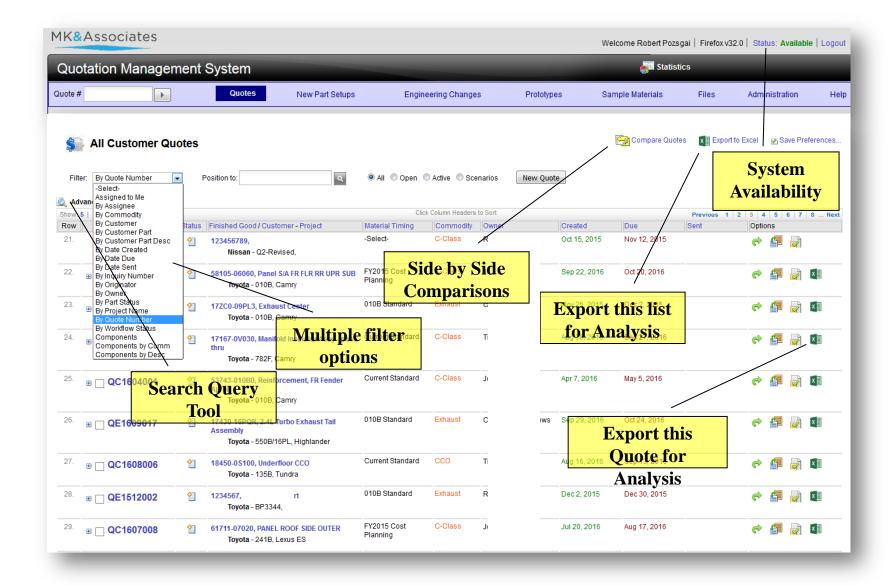




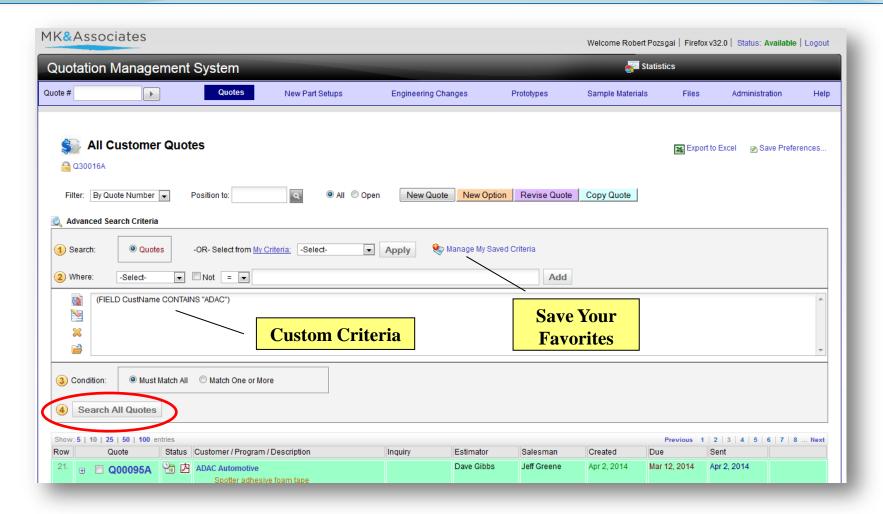






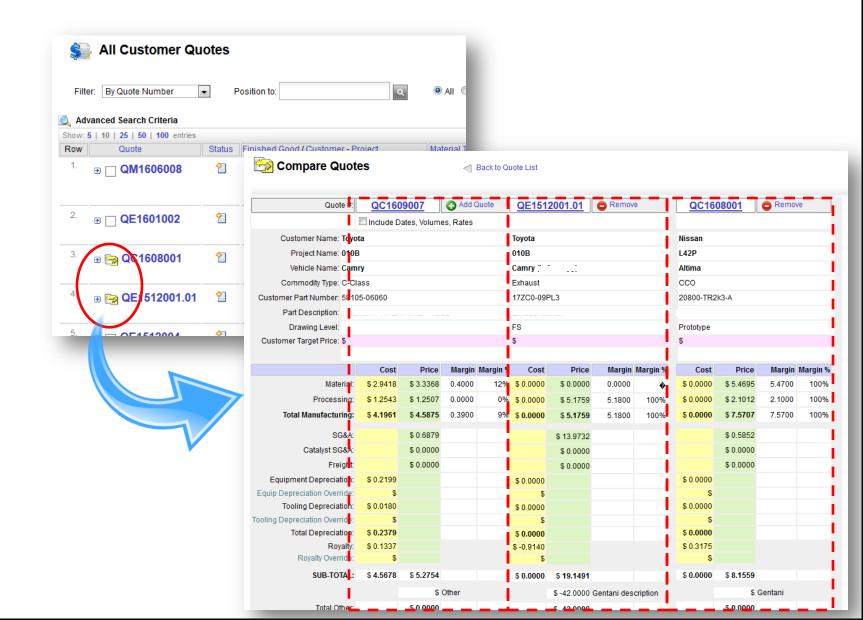


Search Query Tool

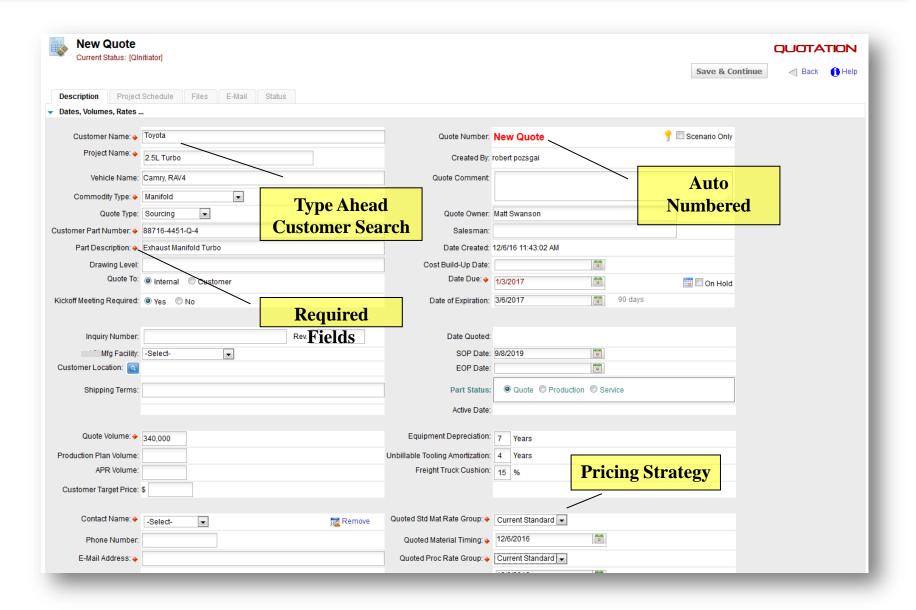


- Enables ad-hoc reporting
- Export to Excel for personalized analysis

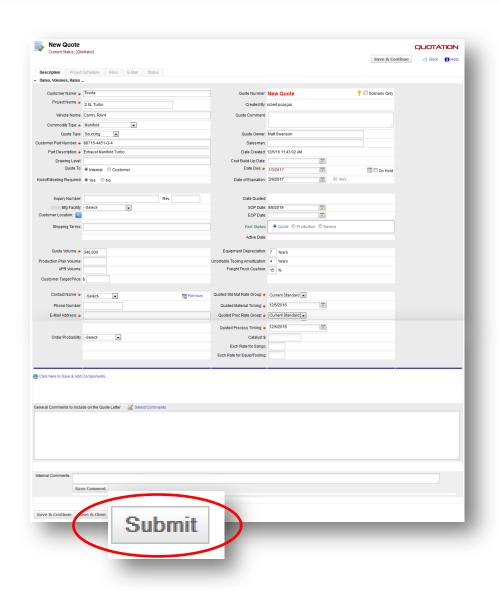
Compare Quotes



Create a New Quote



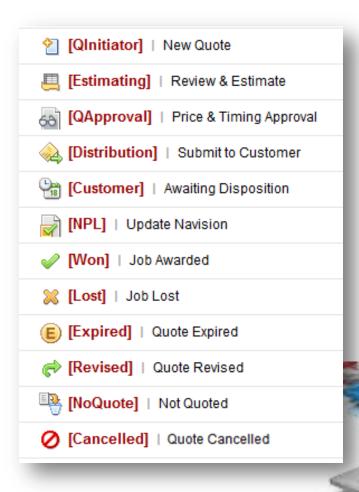
Submit the Quote



- Required fields are validated
- Courtesy notifications are sent
- Workflow e-mail sent to next assignee

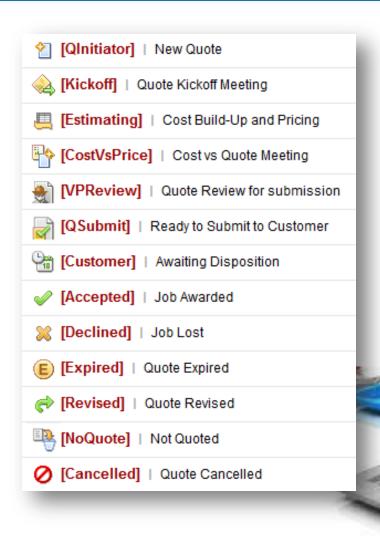


Sample Quote Workflow Definition



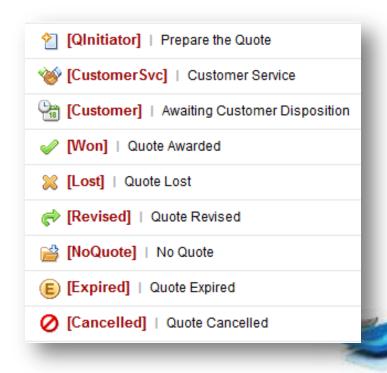
- Serial or Parallel processing
- Automated notifications
- Conditional routing
- Dynamic user assignments
- Backup definitions
- Overdue reminders

Sample Quote Workflow Definition



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Sample Quote Workflow Definition



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User Assignments





New Quote # Q30036 for Billington Products

Billy to: Michael.__.

Document Link Information:

Database: Quotation Management System

Document: Quotation Q30036
Workflow status: Review and Estimate

Please review this document requiring your attention.

Requestor: Jeff Maxwell

Description: Window Regulator Change

Access the document by using the link below. Review the document and click the Approve button if you want the document to be processed. Clicking the Reject button returns the document to the author.

Thank you.

http://mxti.beechwood.com/prod/qms.nsf/0/35J26LK3136K35L67J85L5K858VH&action=openDocument

User Assignments



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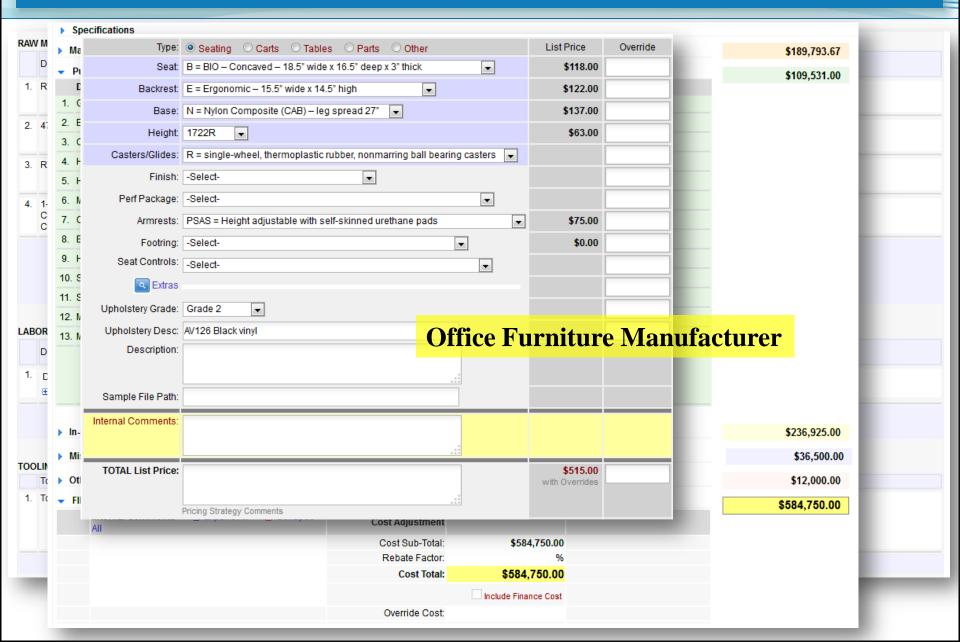


Costing Method

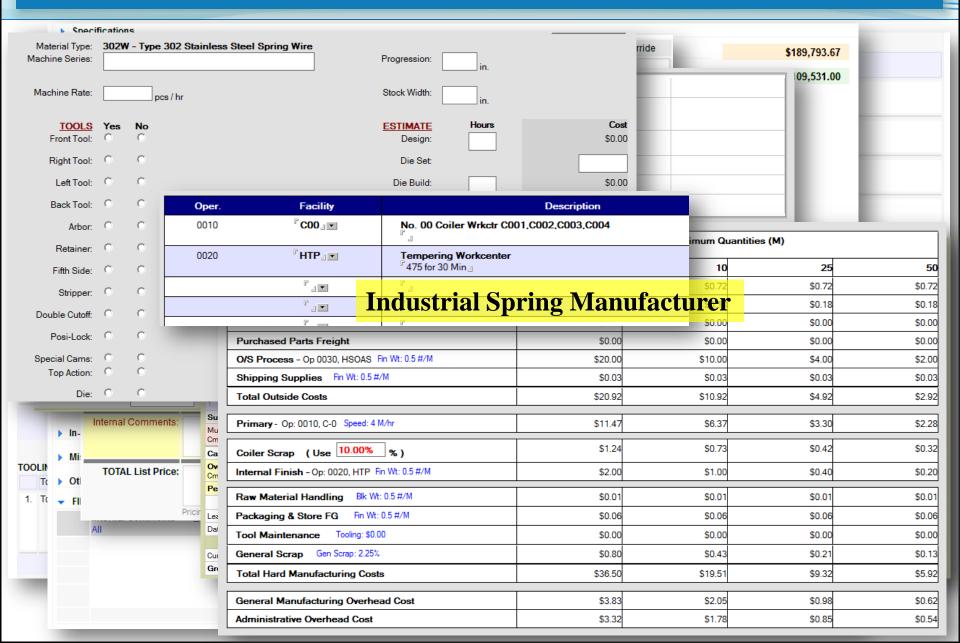


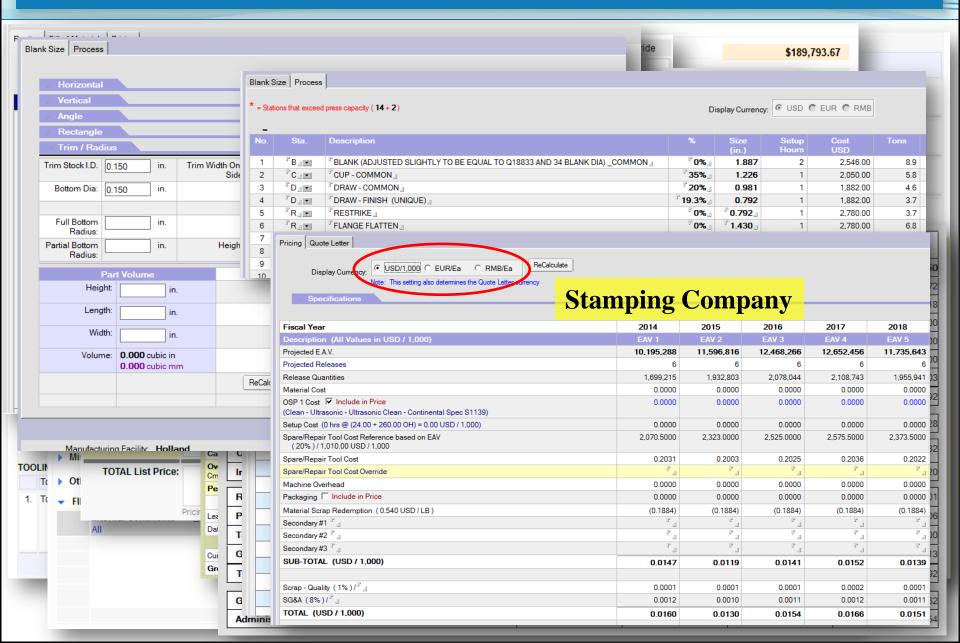
| | / MATERIAL & COMPONENTS | | | | | | | | | | | |
|----|--|----------------|-------------------------|-----------------------------------|--|---|---------------------------------|-----------------|-----|-----------------------|---|--|
| | Description | Cost / Unit | Parts / Unit | Units | Scrap % | Cost / Part | Usage Per Order | Usage Annual | OSF | Vendor | | |
| 1. | RT8002 2.14" X 164' | 0.57590 | 60.91 | LF | 119.76% 9.88% | \$0.01039 | 1,804 | 20,782 | | | | |
| 2. | 4701-60-25062-04 Poron 2.25" X 150' | 0.29270 | 60.91 | LF | 119.28% 9.65% | \$0.00527 | 1,800 | 20,738 | | | | |
| 3. | RT8002 2.14" X 164' | 0.57590 | 60.91 | LF | 119.76% 9.88% | \$0.01039 | 1,804 | 20,782 | | | | |
| 4. | 1-220-050-06775 CLRLNR .002"T X 2.5"W X 3,900' CLEAR LINER | 0.02250 | 60.91 | LF | 0.00% 9.65% | \$0.00041 | 1,800 | 20,738 | | | | |
| | | | | | rial Sub-Total: oound Freight: | \$0.02645 \$0.00033 | | | | | | |
| | | | Mu | | rial Increase: Material Cost: | \$0.00201 \$0.02884 | 2.50% | | | | | |
| AB | OR & MACHINE DATA | | Mu | | | | | n Pa | d I | Producer | | |
| В | OR & MACHINE DATA Description | | Mu Setup Time | | Material Cost: | | | n Pa | d I | Producer | • | |
| | | | | Total | Material Cost: Units / Hr | \$0.02884 | Foan | | d I | <mark>Producer</mark> | • | |
| | Description Die Cutting | | Setup Time | Lot Size | Material Cost: Units / Hr | \$0.02884 Cost/Part | Foar Capacity Hrs / Order | Rate \$98.8 | d I | <mark>Producer</mark> | | |
| 1. | Die Cutting ⊕ Work Instructions ✓ | | Setup Time | Lot Size | Units / Hr 45,000 OH Sub-Total: | \$0.02884 Cost/Part \$0.00495 | Foan Capacity Hrs / Order | Rate \$98.8 | d 1 | <mark>Producer</mark> | • | |
| 1. | Description Die Cutting | #C | Setup Time | Lot Size 100,000 Labor / OH + I | Units / Hr 45,000 OH Sub-Total: Raw Material: | \$0.02884 Cost/Part \$0.00495 | Foan Capacity Hrs / Order | Rate \$98.8 | d I | Producer | • | |
| 1. | Die Cutting ⊕ Work Instructions ✓ | # C | Setup Time | Lot Size 100,000 Labor / OH + I | Units / Hr 45,000 OH Sub-Total: Raw Material: ommon kisting emize on | \$0.02884 Cost/Part \$0.00495 \$0.00495 \$0.03374 | Capacity Hrs / Order 5 | Rate \$98.8 | d I | Producer | • | |

| | ▶ Specifications | | | | | | |
|-----------|---|-----------|----------|-------------|----------------------|---------------------|---|
| V M | ▶ Material | | | | | | \$189,793.67 |
| D | ▼ Purchased Items | | | | | | \$109,531.00 |
| R | Description | Unit Cost | UOM | Quantity | Total | | ¥132,221112 |
| | Guide Pins + Bushings - sets | 200 | each | 10 | \$2,000.00 | | |
| 47 | 2. Ejector Pins | 30 | each | 60 | \$1,800.00 | | |
| | 3. Core Pins | | each | | | | |
| R | 4. Hot Runner System Misc. Type | 7,500 | each | 11 | \$82,500.00 | | |
| | 5. Hot sprue bushing | | each | | | | |
| 1- | 6. Manifolds (Water, Hydraulic, etc.) | 450 | each | 4 | \$1,800.00 | | |
| C | 7. Connectors Water & Hydraulic | 30 | each | 30 | \$900.00 | | |
| - | 8. Electrical Components Limit Switches/Sensors | 1,000 | each | 3 | \$3,000.00 | | |
| | 9. Hydraulics | 750 | each | 6 | \$4,500.00 | | |
| | 10. Swivel Eye Bolts | 3,500 | each | 1 | \$3,500.00 | | |
| | 11. Straight Locks / PL Locks | | each | | | | |
| | 12. Misc. Items | 9,531 | each | 1 | \$9,531.00 | Injection Mo | ld Die Shon |
| BOR | 13. Metric Upcharge | | each | | | injection wio | iu Die Shop |
| D | | | | Sub-Total: | \$109,531.00 | | |
| С | | | | Markup% | \$0.00 | | |
| Œ | | Purch | hased It | tems Total: | \$109,531.00 | | |
| | | | | | | | |
| | In-House Process Steps | | | | | | \$236,925.00 |
| | Miscellaneous Services | | | | | | \$36,500.00 |
| LIN To | ▶ Other Costs | | | | | | \$12,000.00 |
| To | ▼ FINAL PRICE | | | | | | \$584,750.00 |
| | Internal Comments | Cos | t Adjus | tment | | | , |
| | | Co | ost Sub | -Total: | \$584,750.00 | | |
| | | R | ebate F | | % | | |
| | | | Cost | Total: | \$584,750.00 | | |
| | | | | | Include Finance Cost | | |
| | | C | verride | Cost: | | | |









The Bottom Line

```
\bar{y}_{ii} = \beta' \bar{x}_{ii} + \varepsilon_{ii}

where \bar{y}_{ii} = y_{ii} - \bar{y}_{i}, with \bar{y}_{i} = T^{-1} \sum_{i=1}^{T} y_{ii} (and the same for x, \mu, and \varepsilon). Because \mu_{i} is fixed over time, we have \mu_{i} - \bar{\mu}_{i} = 0.
```

```
Markup: 140 %

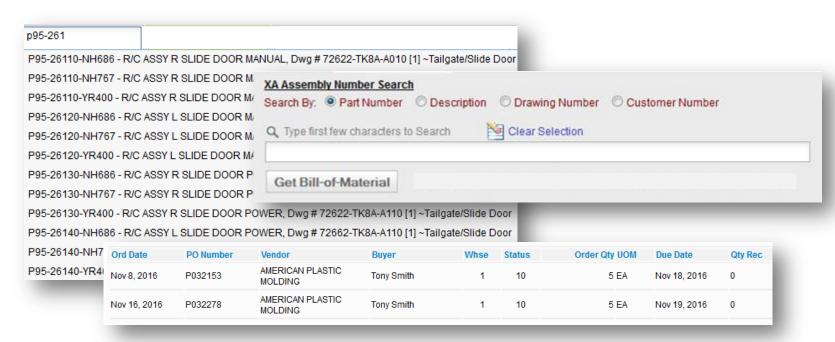
Sell Price: $ 0.04766 56% Material

Sell Price Override: $ 0.04790 55% Material
```



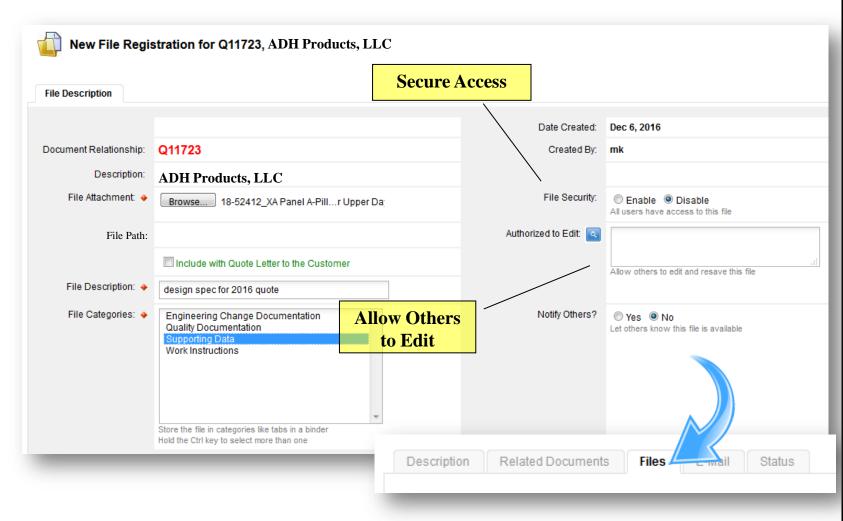
- Leverage YOUR competitive advantage to calculate accurate pricing
- Pull from XA when possible to build the estimate (Unit Costs, Routings, PO History, Surrogate BOMs)
- Enforce consistent formulas, rates and rules for ALL customer quotes

Leveraging XA Data LIVE



- QMS connects directly to XA
- Uses a common user ID, no XA license required
- Supports both PDM and EPDM file structures
- Retrieve Item Numbers, Descriptions, Base Price, MO History, PO History

File Attachments / Hyperlinks

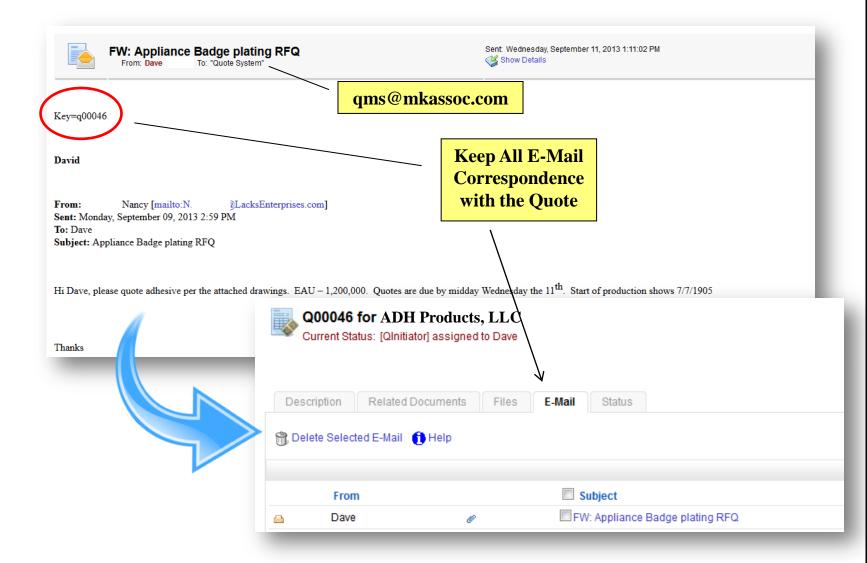


- Store files with the Quote for reference
- Embed as attachments or link to a network file

E-Mail Correspondence

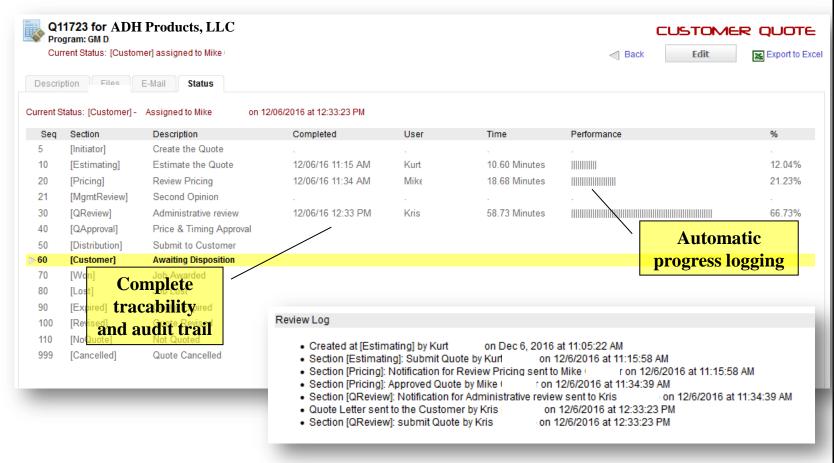


E-Mail Correspondence



No printing / scanning / attaching / copying / pasting !!!

Quote Status Tracking



- Easily trace each Quote through the process
- Evaluate performance for Continuous Improvement
- Full audit trail captured in the Activity Log

Weekly Open Quote Reports





Open Quote Report

QMS System to: Dave

Sent to Quote Creator and Quote Owner

Dave,

The following Quotes are currently still Open and assigned to you. Please address these by opening the Quote System.

| Quote Number | Customer | Description | Due Date |
|--------------|-------------------|--|--------------|
| Q30151 | Interface FLOR | | Nov 22, 2016 |
| Q30017A | 1 | 2MM thick EPDM per MSAY430 with 3M 9832 | Nov 27, 2016 |
| Q30017-1 | GLT International | Spotter adhesive foam tape | Dec 3, 2016 |
| Q00100 | H&L Manufacturing | PVC foam 3.8mm id x 22mm od | Dec 5, 2016 |



- Includes Overdue & Due this week
- Quotes never get lost or forgotten
- E-Mail reports can be escalated

Approvals

Management Review & Approval

By Customer

By Product Line

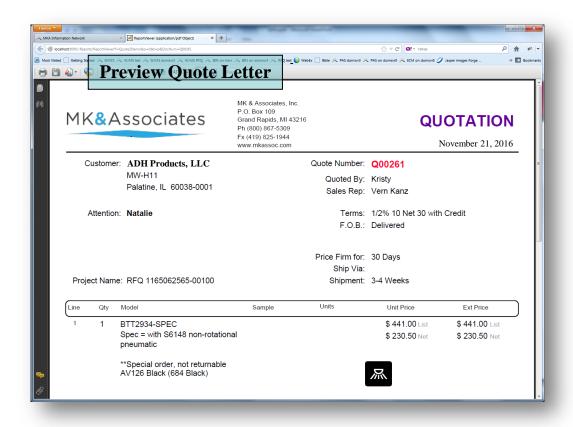
Limits of Authority Rules

Pricing Validation



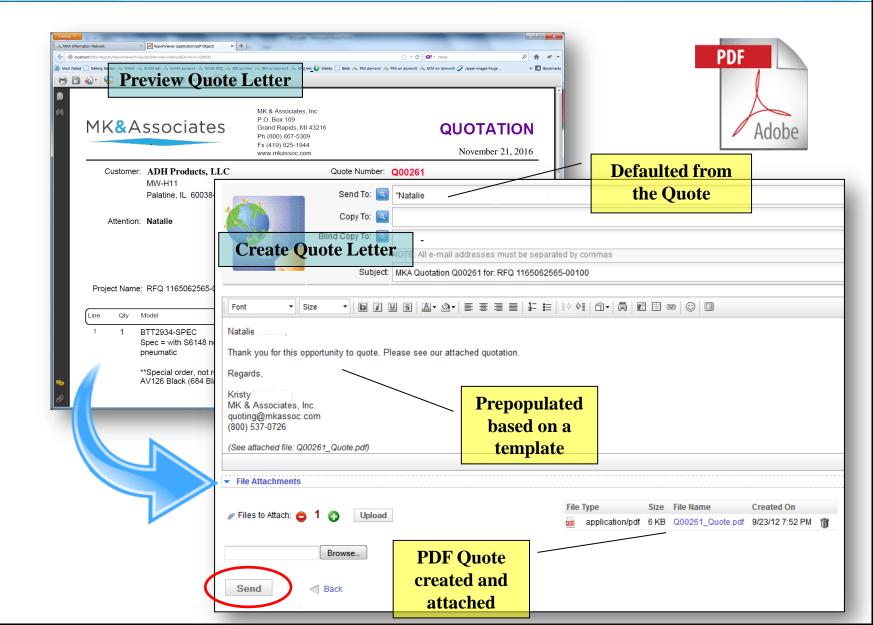
Approved Rejected

Send the Quote Letter to the Customer





Send the Quote Letter to the Customer



Weekly Follow-Up Reports



Reply with Histor

Rustv

This message contains all Quotes that have been sent to customers in your area and are awaiting disposition.

Update the Status of the Quotes by replying to this message and using the Status column. Enter text for Won or Lost or simply type in a status comment.

NOTE: For Lost Quotes, please use the Reason numbers below when possible.

- 1 Price too high
- 2 Competitive bid
- 3 Lead time too long
- 4 Late submission
- 5 Project cancelled
- 6 Style

Examples: Won Order #123456 Lost 1 Lost 2,4 Lost Reason unavailable

Regards

BIN System Automated Messaging

Customer is still considering this

Reply and Update the Status Column

| Quote # | Customer / Project | Contact | # I | tems | List / Net | Date Quoted | Status |
|---------|---|-------------------------------|----------|------|---|--------------------------------|--------|
| | N-Miscellaneous Customers Quote parts | Cathy Ph: 44 cathy | 1 | | List \$35.21 Net \$17.60 | 01/07/2014 by Sandra | |
| Q06596 | P-Miscellaneous Customers Metal Injection Facility | Nick E Ph: 71 nick.e .c | 2 com | | List: \$190.92 Net: \$190.92 | 03/06/2014 by Sandra | |
| Q06617 | U-Miscellaneous Customers | Ronal Ph: 24 rmark | 2 | | List \$55.80 Net \$55.80 | 03/07/2014 by Quality | |
| | M:Miscellaneous Customers Middle East Project | Joan , Ph: 51 jjesbe | 2 | | List: \$1,956,465.00 Net: \$777,928.80 | 03/18/2014 by <u>Amie</u> I | |
| | Q-Miscellaneous Customers Otis Elevator | Mike [Ph: 860 200 7717 | 1 | | List: \$769.00 Net: \$769.00 | 03/18/2014 by Sandra | 1 |

Weekly Follow-Up Reports



Reply with Histor

Rusty

This message contains all Quotes that have been sent to customers in your area and are awaiting disposition.

Update the Status of the Quotes by replying to this message and using the Status column. Enter text for Won or Lost or simply type in a status comment.

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- 6 Style

Examples:

Won Order #123456

Lost 1

Lost 2.4

Lost Reason unavailable

Customer is still considering this

Regards.

BIN System Automated Messaging

Reply and Update the Status Column

| Quote # | Customer / Project | Contact | # Items | List / Net | Date Quoted | Status |
|---------|---|----------------------------------|---------|---|--------------------------------|--------|
| Q05820 | N-Miscellaneous Customers Quote parts | Cathy Ph: 44 cathy: | 1 | List: \$35.21 Net: \$17.60 | 01/07/2014 by Sandra | |
| Q06596 | P-Miscellaneous Customers Metal Injection Facility | Nick E Ph: 71 nick.e | 2 | List: \$190.92 Net: \$190.92 | 03/06/2014 by Sandra | |
| Q06617 | U-Miscellaneous Customers | Ronal Ph: 24 rmark | 2 | List \$55.80 Net \$55.80 | 03/07/2014 by Quality | |
| Q06754 | M:Miscellaneous Customers Middle East Project | Joan, Ph: 51 <u>jjesbe</u> | 2 | List \$1,956,465.00 Net \$777,928.80 | 03/18/2014 by <u>Amie</u> J | |
| Q06757 | O-Miscellaneous Customers Otis Flevator | Mike [Ph: 86 | 1 | List \$769.00 Net \$769.00 | 03/18/2014 by Sandra | |

Quotation Management System

Quote# Quotes New Part Setups Eng

Quote Revisions / Options / Scenarios

- Quote Revisions represent changes to an existing Quote
 - ⇒ Auto Numbered with a letter suffix
 - ⇒ Q12345A, Q12345B



Quote Revisions / Options / Scenarios

- Quote Revisions represent changes to an existing Quote
 - ⇒ Auto Numbered with a letter suffix
 - ⇒ Q12345A, Q12345B



- Quote Options represent variations of a Quote
 - ⇒ Auto Numbered with a dash number suffix
 - ⇒ Q12345-1, Q12345-2

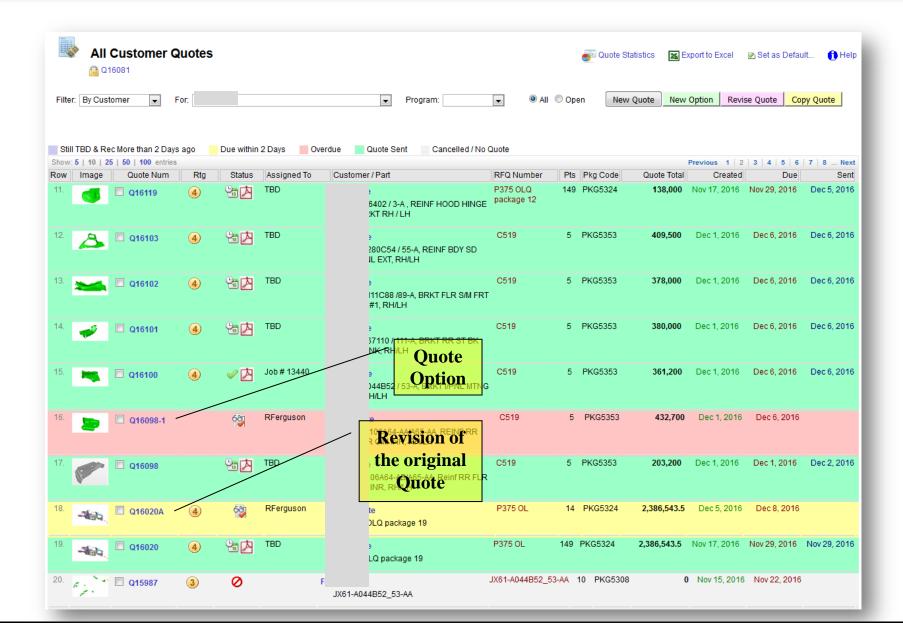
Quote Revisions / Options / Scenarios

- Quote Revisions represent changes to an existing Quote
 - ⇒ Auto Numbered with a letter suffix
 - ⇒ Q12345A, Q12345B

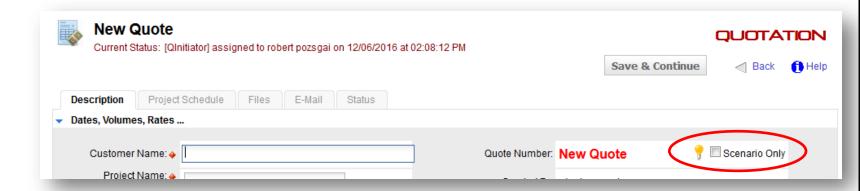


- Quote Options represent variations of a Quote
 - ⇒ Auto Numbered with a dash number suffix
 - ⇒ Q12345-1, Q12345-2
- Quote Scenarios represent "what if" approaches to costing
 - ⇒ Auto Numbered with an SC prefix
 - ⇒ SC03040, SC03041

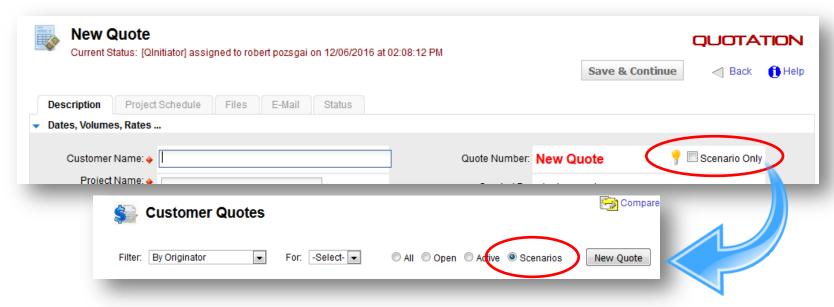
Quote Revisions & Options



Quote Scenarios

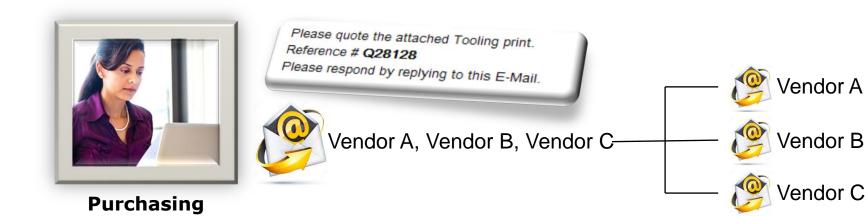


Quote Scenarios

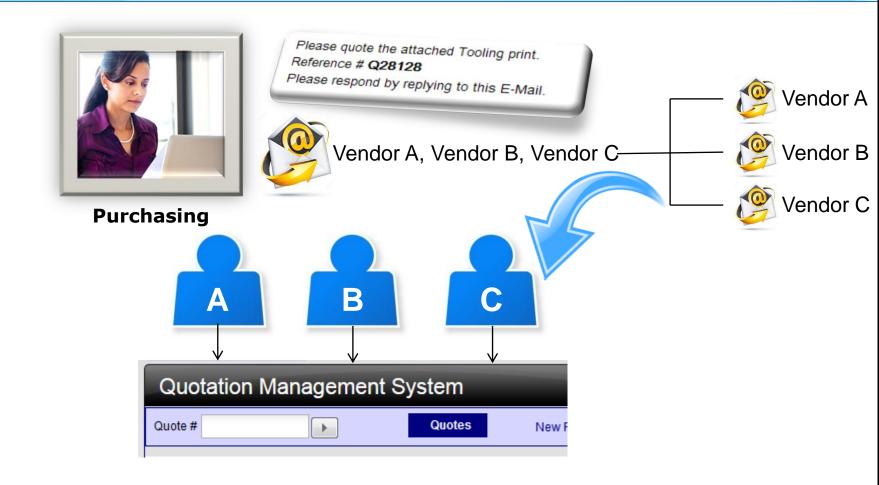


- Auto Numbered separate from "real" Quotes
- Use for "what if" analysis
- Create Template Quotes for different Customers, Product Lines, Manufacturing Facilities, etc.
- Simple conversion to a "real" Quote anytime by just unchecking the Scenario Only checkbox

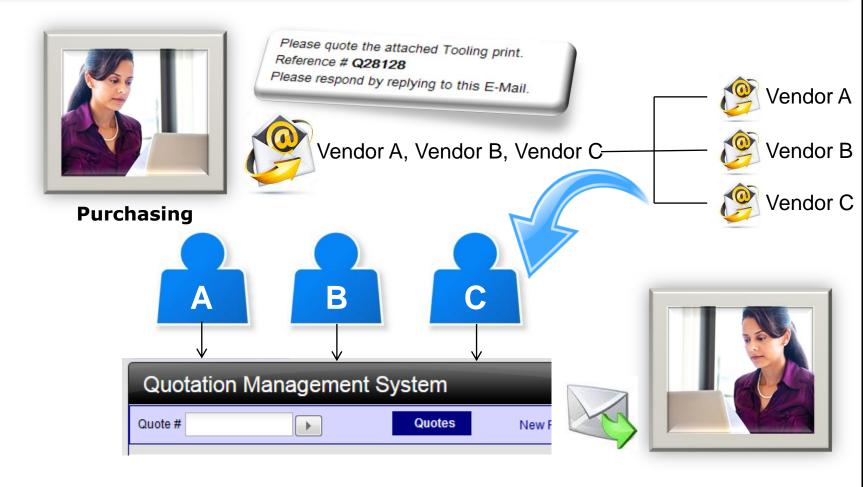
Managing Supplier RFQ's



Managing Supplier RFQ's

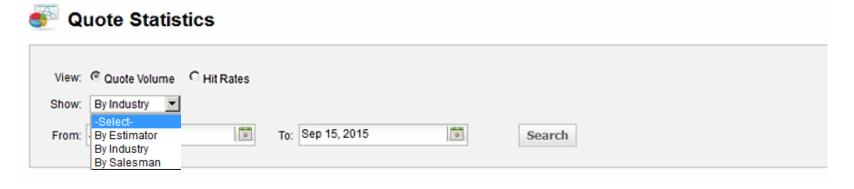


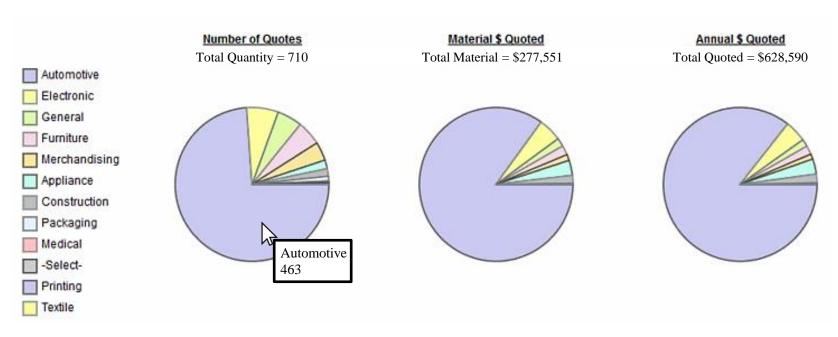
Managing Supplier RFQ's



- Automatic expediting e-mail notifications
- Complete visibility to outstanding RFQ's by Vendor, by Customer, by Quote, by Due Date, etc.

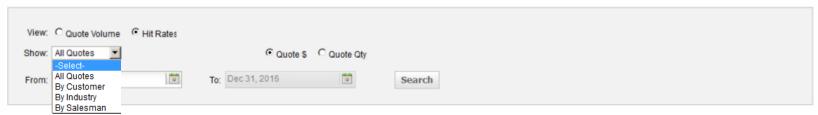
Quotation Statistics

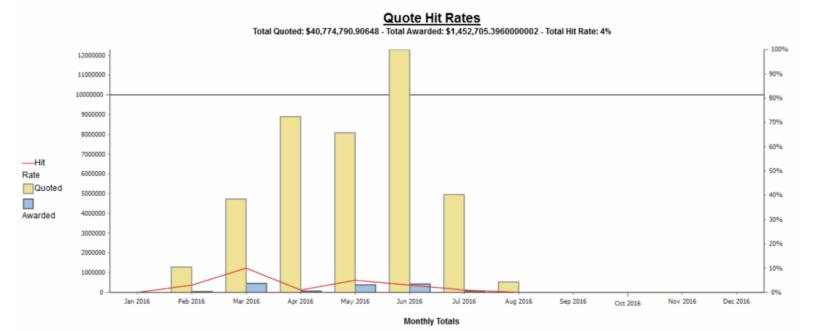




Quotation Statistics







| | Jan 2016 | Feb 2016 | Mar 2016 | Apr 2016 | May 2016 | Jun 2016 | Jul 2016 | Aug 2016 | Sep 2016 | Oct 2016 | Nov 2016 | Dec 2016 | TOTAL |
|----------|----------|--------------|--------------|-------------|--------------|---------------|--------------|------------|----------|----------|----------|----------|---------------|
| Quoted | \$0 | \$ 1,287,115 | \$ 4,731,313 | \$8,898,290 | \$ 8,082,486 | \$ 12,288,993 | \$ 4,954,308 | \$ 532,286 | \$0 | \$0 | \$0 | \$ 0 | \$ 40,774,791 |
| Awarded | \$0 | \$ 41,843 | \$ 458,426 | \$ 72,438 | \$ 387,755 | \$ 428,869 | \$ 62,375 | \$ 1,000 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 1,452,705 |
| Hit Rate | 0% | 3% | 10% | 1% | 5% | 3% | 1% | 0% | 0% | 0% | 0% | 0% | 4% |

Common Problems with Quotes

- Management visibility to Quote status is limited to monthly reports (at best)
- Estimating formulas are defined in spreadsheets often multiple different versions (and usually as silos of information)
- Quote approvals are frequently missed or bypassed
- Supporting documentation must be found by "directory diving" for files
- Quote Due Dates are not tracked correctly and are frequently missed
- Final Quote disposition is often non-existent
- No good way to keep up with different Quote Options, Quote Revisions, and Quote Scenarios
- Supplier RFQ's are not tracked with the Quote

Summary: How QMS Can Improve YOUR Business Performance

- Manage all Quotes in a secure, reliable web based solution
- Ensure all Quotes use common rates and rules for costing
- Route Quotes through an approved, auditable process
- Store all related documentation together with the Quote
- Use follow-up reports to stay on top of Due Dates
- Track inception to disposition to support hit rate analysis
- Leverage XA data to ensure accuracy and completeness
- Easily maintain Revisions / Options / Scenarios
- Integrate Supplier RFQ's with automated expediting
- ⇒ REDUCE Quote Time by 30%-70%
- Improve your professional image and customer service

Respond FASTER and WIN more business.

Quotation Management



Using Business Process Automation to Streamline Customer Quotes

MK&Associates