

The EMS quoting problem

The manual calculation of a quote for the manufacture of an electronic product is error-prone, time-consuming and an expensive undertaking. The associated risk of overquoting or underquoting should not be underestimated. The continuous pressure to meet shorter request for quote (RFQ) response times inevitably increases the risk factors.

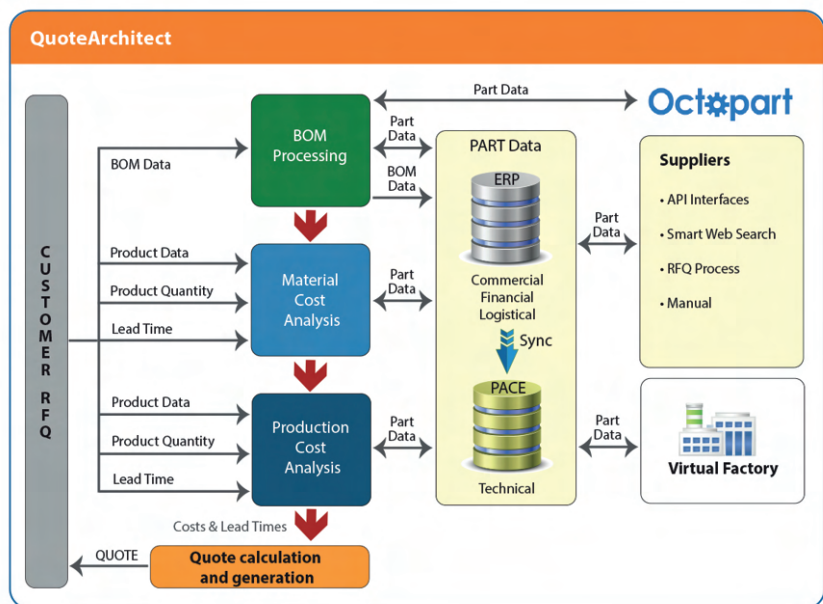
Automating the quoting process speeds up the process, frees up valuable time and minimises the risks. It also ensures that the RFQ response time requirements can be met.

The solution

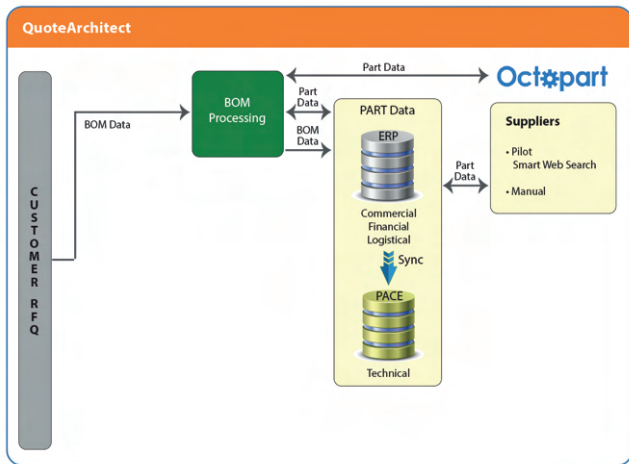
QuoteArchitect is an advanced costing and quoting software for Electronics Contract Manufacturers (EMS providers) that largely automates all aspects of the quoting process and related activities. QuoteArchitect's quoting process automation frees up valuable time, dramatically reduces risk and ensures the right response time. The quoting process becomes fast, accurate, consistent and reproducible. The QuoteArchitect software is modular and enables new users to implement the desired modules one by one and immediately start reaping the benefits.

The QuoteArchitect tool suite consists of 4 modules:

- **BOMArchitect**
the Bill-of-Materials (BOM) processing module
- **QuoteArchitect-MCA**
the materials costing module
- **QuoteArchitect-PCA**
the production costing module
- **QuoteArchitect-QCR**
the quote calculation and reporting module



BOM processing with BOMArchitect

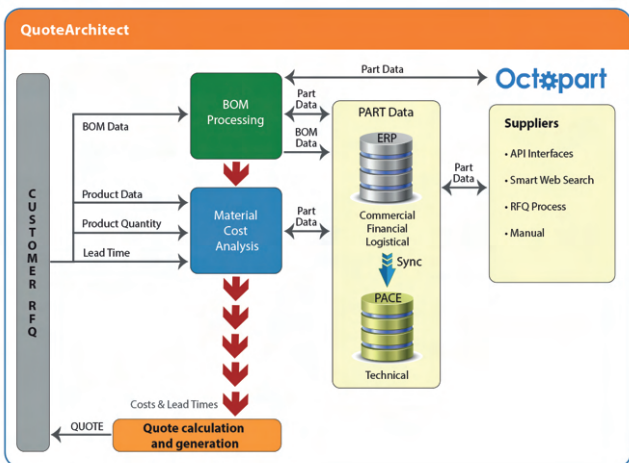


With the QuoteArchitect BOM processing module “BOMArchitect”, a uniform, consistent and error-free “manufacturing BOM” is generated as the basis for the next steps in the quotation process. From day one, remarkable time savings will be realized and errors will be reduced to zero. For years, BOMArchitect has been an independent commercial product with which thousands of bills of materials are processed year after year. BOMArchitect has an interface to every MRP/ERP system and can also be integrated into existing costing and quoting methods.

For more detailed information, visit www.quotearchitect.com

Material cost analysis with QuoteArchitect-MCA

QuoteArchitect-MCA offers four different methods to obtain price, availability and delivery conditions at BOM item level and per potential supplier. QuoteArchitect-MCA contains both a fully automatic price and delivery time analysis functionality based on interfaces to supplier APIs, and a semi-automatic functionality for this based on PILOT, a smart multi-website query tool. Scenario selectors allow real-time API analysis within seconds, analysing which of the selected suppliers offer the best price, stock position and delivery conditions for the requested part codes. The QuoteArchitect-DSS (Decision Support System) suggests a choice per part code. It also takes into account internal stocks, ordering policies and minimum order quantities (MOQs). But the operator can make other selections and modifications at his/her discretion.



For those materials for which the price and delivery information cannot be retrieved automatically, requests for quotes (RFQs) can be generated. A web based portal offers the option to collaborate closely with suppliers enabling them to record price and availability information directly for your quote and for manual entry where the automated option is not appropriate.

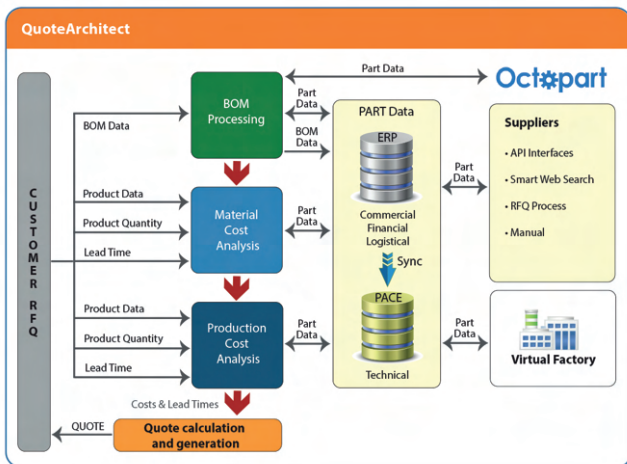
All additional costs are processed in a structured manner and a detailed analysis overview with drill-down functionality completes the material cost analysis.

Economic Order Quantity and Residual Materials

Concurrently, residual materials and their cost are calculated per part code as well as a total. An EOQ (economic order quantity) graphical analysis is also carried out, which calculates at which order size(s) the customer will have the lowest residual material cost.

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Production cost analysis with QuoteArchitect-PCA



Manufacturing Costing in seconds

QuoteArchitect-PCA is based on a configurable 'virtual factory'; a virtual dynamic software model of the production facility of the QuoteArchitect user (EMS).

After a one-time configuration based on the financial and operational data of the EMS, QuoteArchitect-PCA contains a virtual model or 'digital twin' of the relevant production facility.

The "Virtual Factory" includes the technical and financial information about the operations and processes in the user's production facility, including production costs, production times, direct and indirect hours. The financial information about company departments and overhead costs can easily be entered and maintained. The input of financial details of operations and processes uses a similar structure. The flexible configuration module allows the user to determine how this crucial information is stored and to what detail.

The input of technical and other configuration details on operations and processes is supported by special, system-controlled data-entry screens, which enables the combination of production parameters for every conceivable production scenario.

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After job definition, determination of engineering services, one-off costs and the workflow selection, production cost is calculated by the "Costing Engine" within seconds. The calculation speed allows for different job quantities, different production scenarios, and any combination thereof, using the same BOM, to determine the related production costs, so you can select the optimal result.

Includes all costs, with minimum risk and elimination of 'surprises'

While entering BOM data into the virtual factory, various validations are performed in the background. These ensure that potential production problems are not overlooked. They are reported to the operator in the preparation phase of the quotation, instead of being discovered during or after production. Each calculation minimises the risk and eliminates unpleasant "surprises".

Detailed drill down

Each calculation result from the 'Costing Engine' shows the full and actual cost of producing a job in any scenario. The quick drill down of the result shows the details of each cost category; how they are structured and calculated. The drill down is the perfect tool for checking the actual production cost and fine-tuning both the 'Virtual factory' and the 'Costing Engine' for maximum accuracy. "Open calculation" discussions with customers become efficient and goal-oriented.

Automating the quotation process makes the process fast, accurate, consistent and reproducible. It frees up valuable time of highly qualified engineers, reduces risks and ensures the right response time.

For more details, visit www.quotearchitect.com

Coming soon - Quote Generation with QuoteArchitect-QCR

QuoteArchitect is constantly evolving to meet the needs of our growing client base. QuoteArchitect-QCR is such a feature in development. The Electronics Manufacturing Services industry is a cost-plus industry. Therefore, it is paramount that cost calculations are accurate. The QuoteArchitect MCA and PCA costing models are the guarantee for this.

Regardless of whether you are using cost-based pricing or value-based pricing, the QuoteArchitect-QCR module will have all the functionality needed to generate a perfect quote.

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