

The 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.

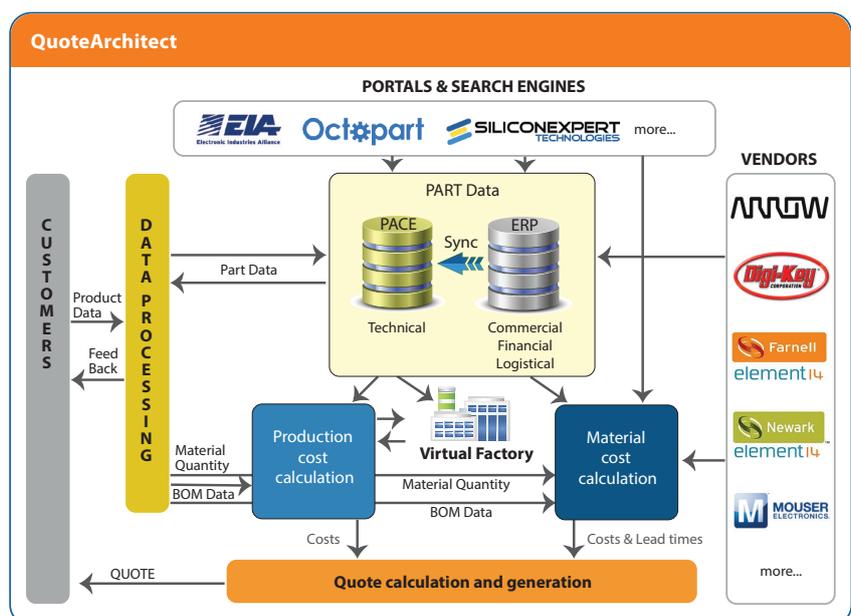
The solution

QuoteArchitect (QA) is an advanced costing and quoting tool suite for Electronics Contract Manufacturers, automating all aspects of the quotation process and related activities.

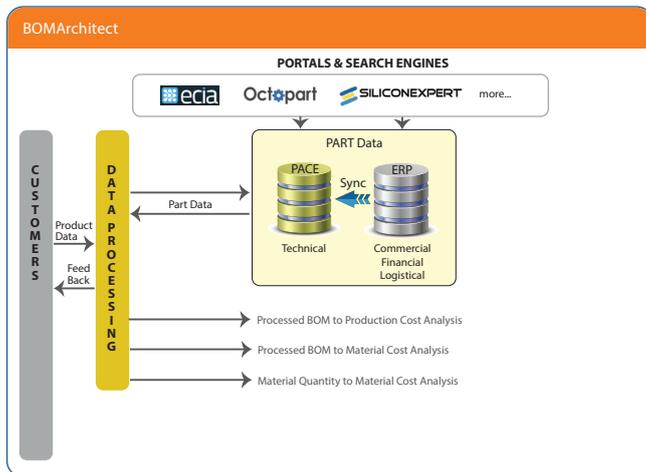
Licensed as a complete package, the QA software is modular, allowing new users to implement one module at a time and reap immediate benefits from the operational functionality.

The QuoteArchitect tool suite consists of 5 modules:

- **BOMArchitect**
the Bill-of-Materials (BOM) processing module
- **QuoteArchitect-MCA**
the materials costing module
- **QuoteArchitect-PCA**
the production costing module
- **QuoteArchitect-QCG**
the quote calculation and generating module
- **PACE**
the database for technical component information



BOM processing with BOMArchitect



BOMArchitect, the QuoteArchitect Bill-of-Materials processing module, allows a uniform, consistent and error-free ‘manufacturing BOM’ to be generated as a basis for the next step in the quotation process. From day one, remarkable time savings will be achieved and errors will be reduced to zero. BOMArchitect has been a commercial product for several years now and thousands of BOMs are processed using BOMArchitect year after year.

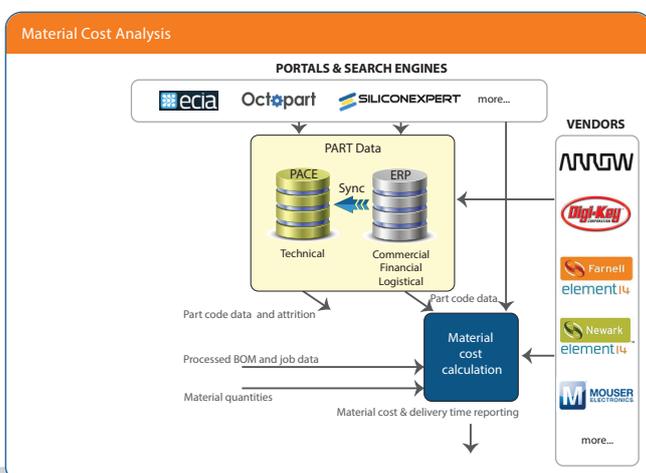
BOMArchitect can also be integrated into existing costing and quoting methods and it has an interface for every MRP/ERP system.

For more detailed information, visit www.quotearchitect.com/bomarchitect

Material cost analysis with QuoteArchitect-MCA

Automatic material costs analysis

QuoteArchitect-MCA contains both fully automatic price and delivery time analysis functionality and semi-automatic RFQ functionality. The scenario selector allows a check, real time and within seconds, of which part codes are in stock and which selected distributors (vendors) offer the best price and delivery conditions for the required part codes. The minimum order quantities (MOQs) are also taken into account, with the residual material costs being calculated at the same time. The QA-MCA’s decision support system proposes a vendor selection on part code level, but the operator can make different selections at his/her discretion.



Semi-automatic request for quote generation

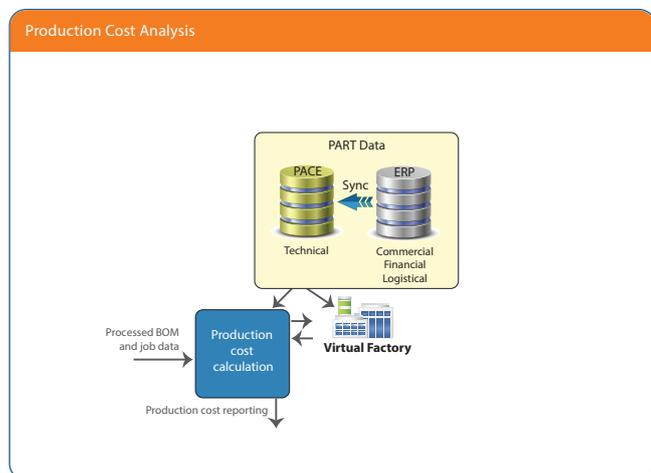
For the materials for which the price and delivery information cannot be retrieved automatically, quotation requests (RFQs) can be generated. If suppliers are prepared to provide structured answers, the quotation information can be automatically read in QA-MCA. The price and delivery information can also easily be entered manually.

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

For larger series, a graphical EOQ (economic order quantity) analysis is performed which calculates at which order size(s) the customer will incur the lowest residual material costs.

For more detailed information, visit www.quotearchitect.com

Production costs analysis with QuoteArchitect-PCA



Production costs calculation in seconds

QuoteArchitect-PCA is based on a configurable 'virtual factory'; a virtual dynamic software model of the QuoteArchitect-PCA user's production facility. After a one-time configuration based on the user's financial and operational data, QuoteArchitect-PCA contains a virtual model or 'digital twin' of the user's 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.

For more detailed information, visit www.quotearchitect.com/virtualfactory

After job definition, registration of engineering services, non-recurring costs and the workflow selection, the specified production costs are calculated within a few seconds. This speed enables easy calculation of the costs for different job numbers, different BOM revisions, different production flow scenarios and any combination of these.

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

During the submission of quotation data in the virtual factory, dozens of validations are performed in the background. These checks ensure that potential production problems are not overlooked. They are already reported to the operator at the quote preparation stage, instead of being discovered during production start-up or, worse still, during or after production.

Detailed drill down

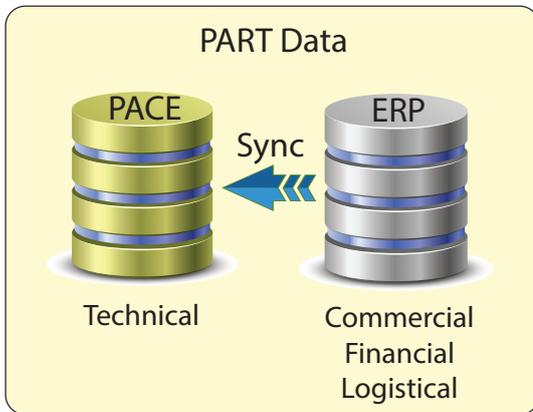
The 'Virtual Factory' shows the full and actual costs of producing a job in any desired scenario. The fast drill down shows the details of each cost category and how they are structured and calculated.

The drill down is the perfect verification tool for the actual production costs and for fine-tuning the 'Costing Engine' for maximum accuracy. 'Open calculation' discussions with customers become efficient and goal-oriented, saving both parties a lot of time.

Automating the quoting process makes the process fast, accurate, consistent and reproducible. It frees up valuable time, reduces the risks and ensures the correct response time.

For more details, visit www.quotearchitect.com

PACE, the central source of technical component information



PACE is a user configurable database for technical part code information and as such it is the heart of BOM processing and cost calculation processes. PACE prevents 'unknown' components in the BOM having to be entered into the MRP/ERP system first, before being able to process a BOM or make a cost calculation. New part codes only need to be entered into the MRP/ERP system if the quotation has become an order, with a significant efficiency improvement as a result. The seamless integration with the other QuoteArchitect modules automates new part code handling almost completely.

But PACE is more than this. Many EMS providers lack a central repository for technical components data. Engineers spend countless hours looking for component information and creating private data archives that cannot be used by others and are not usually maintained. With all the resultant consequences.

PACE stores the technical information of each part code that appears in a BOM. With PACE, all technical data, but also selected MRP/ERP data fields, can be made accessible to everyone within the company. That ends the endless search for part code information, conflicting datasheet revisions and private archives once and for all. There are also considerable annual cost saving and a significant reduction in risk.

For more details, visit www.quotearchitect.com/pace