

ProShop ERP 2019

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Executive Summary

ProShop is a comprehensive web based and 100% paperless shop management suite for machine shops and job shops that combines functionality of ERP, MES and QMS software. It is extremely strong in shop floor controls, production planning, scheduling, BOM management, tool crib, quality monitoring, work instructions, facilities maintenance and more. ProShop was designed over the course of about 15 years on the shop floor of a machine shop to be a comprehensive solution, designed to replace several separate software systems which shops typically need to use. Given its development history, ProShop integrates much more deeply onto the shop floor than other products it competes against such as JobBOSS, E2, GlobalShop, Epicor, MISys, Visual, and includes a greater depth and breadth of modules than is typically found in legacy systems.

Being web based, ProShop can be installed locally on-premise, or as a SAAS model from the cloud. Any modern web browser can be used to access ProShop from any type of device or operating system. ProShop can be purchased outright or via monthly subscription and has 4 levels of pricing based on user needs. ProShop is module based, but all modules are integrated tightly enough that they are only sold together as one complete package.

The usability in ProShop is extremely high, offering a much more fluid navigation style than typical on-premise systems which are typically more menu based. This allows users to access the data they need more quickly and easily. Companies implementing ProShop often free up

employees as it takes fewer people to throughput the same volume of work.

ProShop is specifically designed for make to stock, make to order contract manufacturers in regulated spaces who need the utmost in flexibility for a dynamically changing work environment yet maintaining tight controls on process and traceability required for quality systems such as ISO-9001, AS9100 and ISO 13485. By completely integrating the quality system into the ERP and MES systems, ProShop reduces the cost of complying with quality regulations and intelligently builds quality processes into everyday business operations for the most consistent performance – leading to increased profits and business efficiency.

Adion Systems is constantly developing improvements, new modules and features to further improve and develop ProShop. Their customer support is very responsive. Help and documentation is built directly into ProShop as well as supported by on-site, on-web, phone and email options.

The ProShop suite includes the following modules:

- Parts (Engineering and Quality Configuration), Inventory
- Work Orders (Job Control)
- Customer POs (Sales Order Processing)
- Schedule
- Estimates
- Quotes
- Invoicing
- Packing Slips
- Purchasing
- Time Tracking

- Time Clock with Exporting
- ProShop Messenger (replaces intra-company email)
- Tool Crib Management
- Quality Management System
 - Quality Manual
 - ISO Procedures
 - Tasks
 - Training Management
 - Non-Conformance Reports
 - RMAs
 - PAR/CAR
 - Company Positions/Org Chart
 - Audit Reports
- HR/Users
- Contacts (CRM)
- ProShop CMMS – Equipment Management
- Dashboards
- Fixtures
- Work Cells
- Job costing/profit
- Job Progress (Job/Employee Efficiency Tracking)
- Calendar
- COTS Management (Components Off the Shelf)
- Personal Doc Queue / Custom Home page
- Quickbooks Integration

ProShop is a user based system rather than a seat based system, designed to have all employees be users of ProShop. Users access ProShop through a password protected login screen. Users can be logged in at multiple locations and have multiple tabs open at any location, allowing for easy running of multiple jobs at once, or multitasking with multiple streams of information. This is crucial for allowing employees to work the way they would like to, and not limiting their access like many other ERP systems. The levels of user access to different modules, read/write/delete access is

strictly controlled by company management and is highly configurable. Employees can be allowed to see or not see sensitive data such as pricing. Additionally, companies can hide many fields from view based on employee training records to keep screens clean for lower users who don't need as much information and shouldn't be seeing more advanced functionality. All users within ProShop can be configured with company positions, training requirements, real-time data on labor tracking, quality history, efficiency and effectiveness. So it is easy for employees to see their own performance in all these areas and seek training they need to reach the next company position they want to pursue. This same data is available to company managers individually or in aggregate for all staff.

System Administration

ProShop will come pre-configured with all relevant company information such as logo, name, address, etc. Multiple company profiles with names/logos may be entered and selected for quotes, packing slips and invoices to provide flexibility in your branding if you have more than one brand you send information from. Adion will help you configure weekly workcell schedules, employee work shifts, labor rates, estimate rates, etc. although these items are all editable on the settings menus in ProShop . Items that you specify, such as default lead time and shipping times are controlled by Vendors and Clients and will apply across any jobs which are applicable. .

Overview of the Process

All of the modules within ProShop are so interconnected, that users effortlessly navigate from one to the next without realizing it. The descriptions below will utilize multiple modules or features which will be highlighted in blue

- **RFQ Processing** - The process flow typically starts when a customer RFQ is received in the Estimates module where accurate estimates of costs can be created, which may include referencing historical Part data with a single click. Quotes are then generated to send to Clients.
- **Order Processing** – If you receive a customer Purchase Order, the Quote can be used to generate a customer PO (or create a PO from scratch) where Work Orders are assigned based on the latest configuration of the Part. All applicable Users or Company Positions will get an auto generated Message that a new order has been issued. All Work Orders will be automatically Scheduled on the specified Work Centers. Because ProShop is paperless, several departments can then start parallel processing the Work Orders with Planning, Quality, Purchasing, Programming all able to complete their respective work.
- **Material Control** –The Purchasing Dashboard can be used to procure hundreds of items at a time in just a few minutes and is constantly being updated throughout every day as purchasing requirements are being identified by ProShop or by planners and programmers. Any item purchased for Work Orders will automatically be linked for job costing, and traceability when certs are scanned in during the receiving process. When Work Orders are shipped, Client documentation requirements will be automatically flowed so doc packages are always accurate.
- **Shop Floor Control** - Once all procured items such as Material, Tools, Fixtures and BOM items are released to the shop

floor, shop personnel can track their time while they reference the detailed digital work instructions to complete their work and sign off on operations. This work will automatically feed into and be reflected on the Schedule so real-time status is always available. If work on jobs spans multiple shifts, Users can use the built-in Shift-Tie-In functions. If during the production process, any NCRs are made during the In-process QA or the required production rates are not being met, an automated Message will be sent to the applicable Users to help get the job back on track.

ProShop includes deeper shop floor controls than typical ERP systems. An example of this is the Tool and Workcell modules which together are used in conjunction with the Part and Work Order modules to manage the complete lifecycle of cutting tools from future demand, into the tool crib, through offline tool presetting, storage before entering a machine tool, into the machine during processing and back out through breakdown, retirement or back into inventory. It has some very subtle but useful functions such as managing tool length offsets, offering alerts when tool assemblies are not in length or diameter tolerance, and automatic G-Code parsing to propagate tool description pages and alerts of discrepancies. All of these tools used in combination can dramatically reduce the chance of machine crashes, speed machine setups, reduce tooling inventory levels and eliminate the risk of running out of cutters.

ProShop also embraces the IoT with integrations with MT Connect and Fanuc Focus2 so it can monitor your machine

tools and report relevant data into ProShop such as cutting, idle and alarm states, cutting tool usage, and more. Adion Systems is also developing integrations with 3rd party machine tool monitoring companies for even more robust shop floor controls.

- **Scheduling** – The ProShop scheduling module offers a finite capacity view of all scheduled Workcells in the shop and is always live - being updated in real-time by Users on the shop floor as work is performed. Work Orders will automatically show latest status, amount of work finished and will drop off the schedule as operations are completed. On time status for every job will be indicated by color coding. For jobs queued on any Workcell, the schedule block color will indicate the readiness status of that job to successfully enter that workcell based on the availability of all required materials, Fixturing, Tools, BOM items, etc. and a configurable Pre-Processing Checklist. The schedule will also automatically calculate when Work Orders need to leave your dock in order to be on-time to the next process and to customers based on the processing and shipping lead time at each stage. Work Orders are easily moved to other Workcells on the schedule, or if those Work Orders are changed, the schedule will automatically update to show the latest routing.
- **Project Management** – All project managers, programmers and planners will have custom dashboards on their User homepage displaying the latest status of Work Orders and purchasing requirements for material, BOM items, Tools and outside processing POs. Work Order pages have direct links to the

schedule module to see exact placement on the scheduled work cells. Wherever Work Order and Part links are found, a mouse over will display a summary of information such as due dates, rev level, inventory levels, part images, customer PO number, and more so information can be viewed without even having to browse to another page. The Project Assignment dashboard can be used to change status, or re-assign Work Orders to different Users.

- **QMS** – For companies who maintain a formal Quality Management System, ProShop's completely integrated QMS makes the process of creating and maintaining a QMS considerably easier than a separate stand-alone system. Procedures, Tasks, Training, Audits, Company Positions, Org Chart, CARs, PARs, RMAs and NCRs all integrate seamlessly with the ERP and MES functionality of ProShop. It is extremely easy to see the latest revision of any document and which Users are trained. This process allows very simple and intuitive training dashboards to see where gaps may exist for specific employees, shifts, positions, departments or the company overall. It's also just as easy to initiate new revisions for any document with automated workflow for approval sign-off.
- **Job Costing** – This is an area where ProShop really shines compared to other systems. The method of analyzing job costing is very simple and offers deep drilldown capabilities without the need to generate any reports at all. As soon as any labor is recorded or purchasing generated, profit projections are immediately available and will continue to be updated as the Work Order progresses. This allows shops to project

the profit that will be made on that WO. When the Order ships, profit summaries are available in several areas including on the Sales and Finance Dashboards, the WO page, Customer Purchase Order page, and automatically sent in the Internal Messaging System to all applicable Users. There is no need to generate reports to see these summaries, but there is a robust profit query system built into ProShop anyway. The ease of use and proactive nature of this system makes it much more likely to be used by shop managers where root causes of both good and poor performance can be easily discovered by digging into the details.

ProShop Modules

Estimates & Quoting

These modules are used in conjunction with each other to rapidly and accurately estimate jobs. The estimating module allows you create detailed estimates for parts or assemblies. You can create any process flow for the part you are estimating, including labor time for set-up and run time, out-of-pocket costs for raw materials, BOM items, and out-of-plant processes. You can specify vendors and attach quotes for materials, outside processes, specify lead times, markup amounts or percentages, include detailed notes about operations and processes, etc. You can customize direct labor rates for every process, modify overhead burden rates, profit margins, sales commissions, etc. All estimates include a list of all quotes on which that estimate has been included. Any estimate can be Re-estimated and old revisions automatically attached to the applicable quotes.

Any estimate can be used to generate templates for use in the future to rapidly create new estimates for similar work. Unlimited templates can be created and organized into categories for quick retrieval.

Once estimates are finalized, with a click you can generate a quote to send to a customer. If quoting a larger package of parts, a shopping cart is used to combine multiple estimates to create a quote with multiple part numbers. Common notes to all parts are combined and unique ones are itemized and identified by part number on the quote. Different company logos and names can be chosen for specific branding on any quote.

Estimating data is what is used to propagate all information for the Parts module. All relevant information will be brought forward onto any Part record which will be used to issue Work Orders. Estimates with different part routings can feed into a Part record with multiple routings including unique work instructions, time targets, and process steps.

Parts

The Parts module is where all part specific work instructions, quality templates, shop routings, and more are kept. Parts are typically generated from an Estimate, but may be made from scratch or from templates. Media rich digital work instructions including text, photos, and videos help guide employees to hit set-up and run targets, and help to eliminate tribal knowledge on the shop floor. All inspection requirements for FAI and in-process inspection is stored within the Part. Any cutting tools used can be linked into the Part and even propagated from G-Code parsing built into ProShop.

Multiple part routings are supported within ProShop which allows a highly flexible workflow that can adjust to changes on the shop floor. Each routing, which can be for different types of machines, build to stock, pull from stock,

outsourced to a sub-vendor, or others, can have unique work instructions, target times, inspection requirements and more, so that regardless of the routing chosen, the instructions schedules are always accurate.

The latest revision of all work instructions is maintained in the Parts module and all historic work instructions are kept in the Parts Archive module. If you want to know exactly what the work instructions were from a Work Order 5 years ago, you can see that with 3 mouse clicks. The latest digitally approved drawing revision is always accessible from the Parts module and has automated revision control and archiving workflow built in. From the Parts module you can look up every part you have ever made for any customer, including showing a list with thumbnail pictures next to every part number. You can also see a list of all the currently active, in-process and completed Work Orders for any part number including complete job costing history for every Work Order with a single click. Creation of new Parts also triggers PDM functionality, automatically generating predefined folder structures on company file servers to manage all external documents not held within ProShop such as drawings, G-Code, CAD/CAM files, etc. New Part revisions in ProShop also trigger automatic revision control/archiving of related documents on the file server.

Mastercam users will enjoy the ability sync tool libraries, to embed simulation videos into work instructions and link directly to set-up sheets from Mastercam.

Customer Purchase Orders

This module tracks every customer order with information about prices, delivery dates, Work Order numbers, First Article Inspection (FAI) requirements, etc. When a customer sends you a purchase order based on a quotation that was sent to them, you can quickly and easily turn that

quotation into a customer PO with one click. POs may be created from scratch as well by entering the part numbers, prices, delivery dates, delivery priority, FAI, line order date, and more for each line item. Delivery locations are fed from the Customer Contact page as are credit terms, primary contact, whether certs are required, and other customer based quality notes. Fully ISO-9000 and AS9100 compliant contract review functionality is built right into Customer POs as well, allowing you to quickly and easily confirm POs without ever printing a single piece of paper. Order lines can be setup as built to ship, built to stock, blanket orders or pull from inventory. It is from these PO lines that Work Orders will be generated.

Work Orders

Once Work Orders (WO) are generated from a Purchase Order, the relevant employees are automatically alerted within the internal Messaging Module as well as showing up on those employee's Dashboards. Work Orders are propagated from the latest information within the Part module for each part number. Additionally they offer complete records of all current and past jobs with just a few clicks. Find out up-to-the-minute status of all the jobs in your shop and link to information such as how many labor hours of time have been tracked, dollars spent out-of-pocket, how many parts are finished through what stage, where out-of-plant parts are at and when they will be back. Digital sign offs on every process step will tell you exactly what date, time and User signed off on any step. You can also view all inspection records including First Article Inspection (FAI), In-Process QC (IPQC), delivery records, raw material certs, BOM items, links to time tracking for all direct labor performed, complete historical profit and loss information and much more. Any NCRs generated during set-up or running of the WO will be permanently stored, and will also trigger

instant alerts to leads and QA staff to offer support.

The WO module in conjunction with the Purchasing, COTS and Inventory modules is the foundation of all the traceability tracking. Every component in a multi-level BOM, including all raw material and outside processing is 100% traceable and can be found with just a few mouse clicks. At Final Inspection, a single mouse click of the upper level assembly will collate and bring forward every related cert, and audit the FAI results, for preparing into the complete document package saving hours of time every day.

Contacts

The contact module is where you keep track of anyone you communicate with outside the company. All customers, vendors, and other types of contacts are managed here. You can store any number of individuals with their emails, phone numbers, notes, etc. All customer quality requirements such as FAI formats, if they require certs, C of C, shipping addresses, credit terms, receiving hours, or any other information needed is tracked and managed here. This page also offers quick links to that customer's Work Orders, Purchase Orders, historic profit numbers, on-time delivery, customer satisfaction survey results, and more. It is also the location for accessing any company level documents such as workmanship standards, cosmetic requirements or any other documents referenced by the company. For vendors, you can manage all their processes, lot charges, audit results, hours, delivery transit times, employee contacts and more.

Scheduling

The schedule module within ProShop is constantly being fed with live data from the shop floor, purchasing, planning and programming. These live feeds of data provide up-to-the-

minute status of jobs currently on any workcell, when the jobs will finish based on the latest time-tracking data, and if you have everything needed for jobs about to enter any workcell. The schedule module shows the exact status of every Work Order in your shop. It indicates the on-time status of all jobs and even forecasts if all future jobs based will be on-time based on your scheduled hours and available staff, what machines or Work Centers it is flowing across, what dates Work Orders need to leave to ship to the customer or out-of-plant processes and when they need to return for any additional processes before shipping to the customer. Color coding of Work Orders on the Schedule indicate if all required actions have been completed before a Work Order can be successfully set-up on a machine, including all planning, programming, raw materials received, cutting tools in stock, fixtures pulled and ready. These checklists are fully customizable by customers. This capability allows for the minimum spindle downtime between jobs. How will the delivery date be affected if you are down for unplanned repairs or maintenance?

Purchasing

ProShop takes an innovative approach to vendor purchasing, allowing one purchasing agent to handle a higher load of work compared to other systems. You can issue POs to your vendors directly from the Purchasing Dashboard which displays live purchasing requirements from planning for all active Work Orders based on need date and commodity type. Purchase orders are typically initiated using a unique shopping cart system which collates all the purchasing requirements of active work orders and then assigned to a vendor for ordering. It is possible to handle all the purchasing requirements and issue POs for thousands of unique items in just a few minutes. The purchasing module also feeds information to the vendor rating system which is

integrated into the Contacts module and Management Review process. Upon receipt, all certs for purchased items are scanned and attached to each line item, setting the stage for easy retrieval of certs as described in the WO module.

Inventory

Robust inventory management is built into the Parts and COTS modules. See at a glance how much inventory you have, which orders they came from, were shipped from, and see future demand and allocations. From any part number or assembly, you can see exactly which Work Order created it and link back with just a click. You can also look back for any job that was shipped from inventory and see a full traceable history of the source of every component. All inventory includes a full cost accounting of the original cost, and its current discounted value. Minimum inventory values will automatically trigger purchasing requirements and display on the Purchasing Dashboard.

Equipment

The equipment module is a fully functional CMMS system, where all company assets, equipment and inspection equipment are managed. It serves the dual function of managing and tracking all maintenance for any equipment as well as calibration requirements for precision instruments. Responsible parties can be assigned to any equipment or specific maintenance item. For example, members of your maintenance staff can be assigned as responsible for machine tool oil and filter changes, while quality department staff may be assigned to machine calibration. Responsible parties will be proactively alerted when their respective assignments are nearing their due dates either by date, or metered hours. Complete work instructions including videos, photos and more can be created for any action

item. Intensive service items can be managed by issuing a Work Order and scheduling the service in advance. Any service item can have a complete BOM which is also integrated in the purchasing system and will notify purchasing agents if an item hits its minimum reorder point. A complete history of all equipment actions is always available.

Tooling

The Tooling module is where all consumable tooling is managed and tracked. Any important attribute can be recorded, searched, etc. In addition to seeing a complete inventory of all tools in the tool crib, users can also see any tool that is currently in use in a Workcell (machine tool or tool caddy) and what is forecast to be needed for any current Work Orders. For any shops that do offline tool presetting, ProShop will link with your tool presetter and manage the tool offsets all the way into the CNC machine and back out, for full lifecycle management of cutting tools. A full cost and purchasing history is available for all tools showing vendor, cost, lead time, and for which Work Order they were purchased. Active tooling requirements as well as triggers for minimum inventory values are managed in the Purchasing module using the shopping cart system.

For shops using Mastercam, tool information can also be exported into Mastercam individually or for an entire job. Tool lists can then be used to set-up a caddy or CNC machine offline and will accept tool length and diameter data directly from your presetter and will then generate the appropriate offset file to upload into your machine using the Workcell module.

RTAs

RTA stands for Rotating Tool Assembly. This module is specifically for companies who perform machining and manages a combination of tool holder, collet, cutting tool, inserts, and out-of-holder length. By standardizing and managing common tool assembly configurations, shops can get the most consistent performance from their tools and machines. During the tool presetting stage, ProShop will alert the employee if the tool length offset measured by the presetter is outside of the predefined limit in order to minimize the chance of crashing the tool.

Fixtures

The Fixtures module allows management of all fixtures for custom work holding, vises, chucks and more. Storage locations as well as all applicable Parts which use the fixture and any active jobs in the shop which will use the fixture is displayed on a single page. By using the Equipment module alongside the Fixture module, complete maintenance of fixtures can be managed with scheduled maintenance and replacement schedules, ensuring your fixtures are always ready.

COTS

COTS stands for Components-Off-The-Shelf. It is where all items such as fasteners, fluids, consumables and hardware are handled. COTS items can be added to any BOM on the Estimate, Part & Work Order modules. The COTS module tracks all incoming orders and outgoing usage of items including economic batch size, safety stock, costs, future allocations and inventory quantity. Full traceability as well as automatic job costing for all COTS items is handled without any extra work by purchasing or manufacturing staff.

Workcells

Workcells are the items that are used for the schedule. Any machine tool, workbench,

equipment, or even person can be assigned as a workcell. Once assigned as a workcell, the number and timing of available hours per day can be managed using the schedule. As described above, the Workcell module fully supports tool height offset management and direct communication to CNC machine controllers so human entry errors are eliminated during the process of offline tool presetting through uploading offset files into the machine controls.

Users

All employees who use ProShop are assigned as a User. The User page gives HR and management a place to record important information about employees including employment information, benefit summary, contact information, review history and more. Approved managers can also find direct links to all time tracking and clock punches, effectiveness, training records, Company Positions held, quality performance such as NCRs, CARs, PARs and more. Employees can also see where in the Org Chart they belong based on

Time Clock

ProShop has a built in time clock for punching in and out of work. A very fast interface allows any user to clock in or out from any computer or phone quickly using a password. Employees and managers can easily see current and historic clock punches for any time frame. A system for missed punches allows managers to review and approve when an employee forgets to punch at the correct time. Managers are also alerted to any anomalies. Because ProShop knows the wage or salary of every employee, this data is also automatically integrated into companywide overhead and cost calculations. All time tracking data can be easily exported into accounting packages such as QuickBooks for payroll.

Time Tracking

It is essential for time tracking to be accurate, specific and fast to record. The Time Tracking module was designed to take just a few seconds to interface with and allows employees to record which Work Orders they are working on (if any), what type of work they are doing such as set-up, running, programming, troubleshooting, how many parts have been made and more. All parameters are intelligently pre-filled based on the page the user is on when initiating time tracking including the Work Order, Workcells, operation, time/date and flow status. Multiple time tracking entries can be simultaneously made to allow flexibility for users to run more than one piece of equipment or Work Order at a time. All time tracking data feeds into the job costing system so actual direct labor costs are automatically generated in real time. Managers can also easily see every open time tracking entry on one page to see exactly what all employees are working on at any time.

Messaging

The Messaging system is critical for intra-company communications. It is used as a replacement for email for many companies. This thread based system allows conversations between any groups of users with direct links to the applicable page in ProShop. Users can subscribe or unsubscribe from conversations as needed. ProShop can also issue automated messages, alerting users and managers of myriad important alerts such as when NCRs are created, when Time Tracking is over target by a determined percentage, when Equipment is nearing its calibration or maintenance due dates, when documents are ready for review and approvals, and other needed alerts. Because the

messaging system is part of the company database, all communications will be permanently recorded, making research on prior correspondence fast and easy.

Company Positions

The Company Positions module is a foundational part of managing the entire organizational structure along with other modules in the QMS portion of ProShop. An unlimited number of company positions can be created and assigned to Users. These can then be assigned as responsible for actions and categories across ProShop including NCRs, Audits, Quality Procedures, Equipment, and more. This makes it much easier to reassign work temporarily and permanently when user changes happen. The Company Positions feed into a dynamic and visual Org Chart showing all employees and training status for their positions. Company Positions are also used to assign training paths for users to advance to higher positions in the company. A series of training records can be created to clearly identify and guide employees who are on an advancement path to higher levels of responsibility in the company. Managers can clearly see how far along employees may be toward new responsibilities.

Dashboards

Dashboards are a critical tool to monitor the performance of the company and individual departments at all levels of the company. They are the tools that guide daily and hourly decision making on the shop floor and in the office. With over 25 unique Dashboards for customer service, planning, shipping, inspection, receiving, sales, finance, and much more, every department and manager are being updated in real time. Users can see the pulse of the entire company and what needs immediate attention.

Querying/Reports

All modules within ProShop include powerful querying capabilities and don't require the purchase of third party software to generate reports. All reports can be user specific or global in nature where all employees can access and view them. Many "reports" within ProShop are not technically reports at all, but are simply links to the most up-to-date information and are always live, updating every time that page is displayed. Because of the Object-Oriented-Database structure, reports can be created quickly and can include additional pieces of information from other modules within ProShop. Any query result can be exported with a single click directly in Excel, CSV, PDF and more.

QMS

Quality Manual

The Quality Manual is the foundation of the ISO-9001 or AS9100 Quality Management System (QMS). It is a broad document that includes the company Quality Policy and goals, a detailed description of the quality system, procedures, and other resources for maintaining high quality product and services. Every section offers complete revision control using the same automated system described in Procedures below.

Procedures

Quality Procedures or QPs are more detailed documents that cover broad specific areas of the company and how the systems and procedures are managed to ensure that high quality and efficiency is maintained. This is where much of the documentation for an ISO-9001 and AS9100 system is managed. The default QPs are built around the AS9100 standard, with all the current

sections of the standard. A list of users and Company Positions who approve the document and the latest approval status is included. Creating new revisions is very simple, allowing editing of the revision in a controlled area unseen by most employees. When a new revision is ready for approval, and is subsequently signed off by the document owner, an automatic workflow is triggered whereby the current revision becomes archived, the draft becomes the current revision and all required company users are alerted to review the QP and any changes that may be applicable to them. Typically most users are only permitted to view the latest revision of any QP.

Tasks

Tasks are more detailed documents that give specific work instructions for individual tasks that may be done on a daily basis. They may include checklists, videos, photos, PDFs, etc. A list of Users who is trained in the Task is included along with their training record which records their proficiency level, date and trainer. When revisions are made for a Task, only the trained users will receive Message alerts to review the new revision of the Task.

Training

The Training module offers training for any Task, Quality Procedure, or stand-alone activity. Trainings include instructions on how to accomplish any activity, may include tests, etc. When a user completes a training, they are signed off on a new higher proficiency level by a user who is a trainer in that item. Training lists are included for every Company Position so employees can clearly see what training they need to accomplish in order to be qualified for promotions to new Company Positions. Training matrices are also available to review company-wide training proficiency levels, filtered and sorted by shift. Training gaps can also be seen on the Org Chart under Company Positions. Similar

to Tasks, when revisions are made for a Training record, only the trained users will receive Message alerts to review the new revision of the Training.

Corrective Action

Corrective Actions may be issued for any reason including from RMAs, Audits, NCRs, Management Reviews and Customer Satisfaction Surveys. The CAR module ties in and links directly to any applicable other modules such as Work Orders, Purchase Orders and NCRs. It includes full 5C workflow for closed loop management of root causes.

Preventative Action

Preventative Actions behave just like Corrective actions. They can be issued from RMAs, Audits, NCRs, management reviews and more. The PAR module ties in and links directly to any applicable modules such as Work Orders, Purchase Orders and NCRs.

Audits

The Audit module tracks the process of issuing audits, tracking the results of and follow up of audit findings. Audits can be either internal or external. CARs and PARs can be issued directly from the Audit module based on the severity of findings. Any related Work Orders or other modules can be linked directly into the Audit results making it easy to find all related information.

Non-Conformance Reports (NCR)

The NCR module tracks and manages any kind of non-conformance. Whether issued from an internal rejection, to a vendor or from a customer, all the details including related Part numbers, Work Orders, customer Purchase Orders, vendor Purchase Orders, and more can be recorded and tracked. When NCRs are created, automated alerts can be generated for any User(s) in the company. The NCR dashboard

can be used to track overall company, employee, customer, machine tool, or part number non-conformances. Detailed analysis using powerful query and reporting functions can provide insight into where to focus efforts to reduce the cost of non-conformances. All data is easily exported for further use if needed.

Return Material Authorizations (RMA)

RMAs enable a way to track all incoming materials from a Customer. Responsibility and cost can be specified and all RMAs can have direct links to any applicable Purchase Orders, Work Orders, NRCs, CARs, and PARs so the full picture of a potential quality issue can be analyzed with just a few mouse clicks.

Pros and Cons

Pros

- Intuitive and modern web based interface – no software to install on user machines, use on mobile devices without needing apps
- 100% paperless design puts manufacturers at the leading edge of the Factory 4.0 movement
- Deep integration into MES functions eliminates need to buy/develop 3rd party solutions for machine monitoring, cutting tool management, equipment calibration, facilities maintenance, in-process quality reporting.
- User based system allows for very precise data reporting and traceability linked to every employee
- Simple and powerful material control and traceability
- Precise and detailed user access levels and controls

- Ability to have users logged into multiple sessions at once
- Multi-Tab browsing support
- Very fast and detailed job costing
- Can manage multiple lots on one order
- Complete change order and Work Order configuration history
- Date/user stamps for every transaction
- Automatically updated finite based scheduling

Cons

- Accounting functions such as AP/AR, P&L and Balance Sheet are handled by integrations with Quickbooks or other accounting systems
- Must log into each workstation to enter production data
- Currently no UPS or FedEx integration for shipping data
- Although mobile access is native, the interface is not adjusted for screen size