

Jobscope, the most comprehensive job costing and integrated manufacturing information system for your order-driven company, balances critical requirements, function, and technology while offering the comfort and confidence necessary to overcome your unique manufacturing challenges.

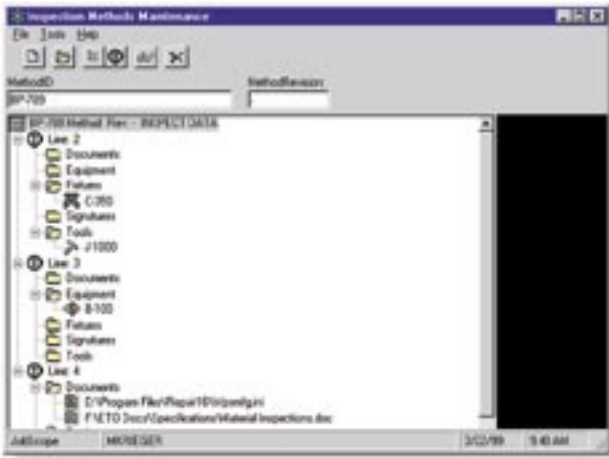


Quality Assurance

Quality Assurance

In today's world, excellent quality is no longer something that is only found in a very limited number of companies, but is something that is expected of every organization which produces goods and services. Good quality is attention to detail; the kind of attention to detail that is difficult to achieve without a well designed computer system. Jobscope's Quality Assurance and Resources modules work together in setting up the standards for a good quality inspection.

The Quality Assurance subsystem is designed to be used right on the shop floor. The workstation which provides for employee logon/logoff of the actual touch labor operations is also used by the inspectors for reading instructions, viewing drawings and other visual aids, and entering inspection results right at the source as the inspections occur.



The Inspection Methods Maintenance window allows you to define the tools and procedures necessary for an inspection.

Features

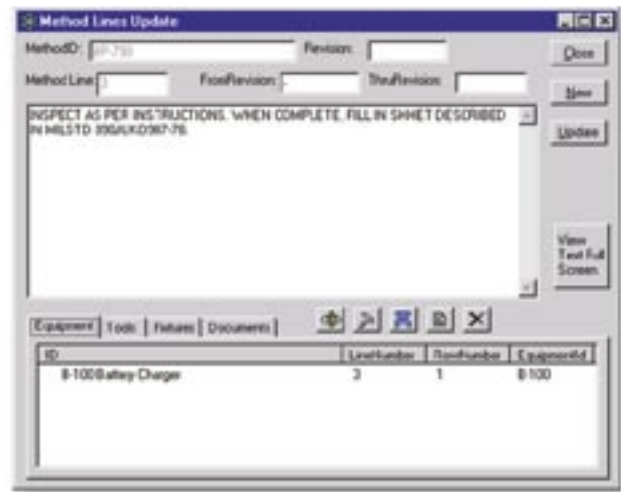
- QA Methods may be linked to routing operations and displayed on the shop floor
- CAD drawings and other visual aids may be linked to methods and displayed to the inspectors
- Tools, fixtures, and equipment may be linked to QA Methods
- Multiple inspection line items within a single method
- Routing operations may be defined as requiring inspection after set up, after touch labor completion, or the operation itself may be defined as an inspection
- User defined codes are provided for rejects, defects, scrap, and nonconformance disposition
- Unscheduled "ad hoc" inspections such as storeroom items or unexpected problems
- Incoming material inspections
- Inspector's time may be job charged as direct labor or absorbed as indirect
- Online "ToDo" list of required inspections by job and work order
- Online entry of inspection results on the shop floor
- Distribution of nonconformance forms by e-mail
- Online "ToDo" list for material review board (MRB) items
- Rework work orders may be created within the QA subsystem



- Bi-level disposition of nonconformances requiring rework
- Online "ToDo" list for higher level nonconformance disposition in engineering
- Serial numbers and extensive notes may be entered for inspection results and nonconformance disposition
- Extensive records of historical QA data

Methods

Jobscope's Quality Assurance subsystem provides for carefully planning and providing documentation for the inspections in the QA Methods module. The QA Method is created as a separate entity and then linked to a routing operation as needed. The method may be linked to the operation as a part of the master routing data, or the method may be called in by the inspector at inspection time.

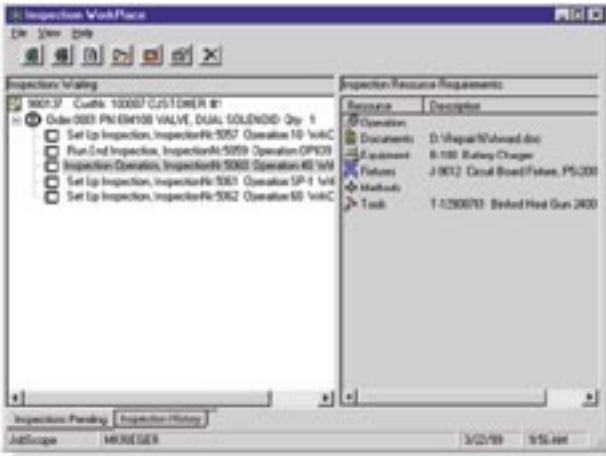


The Method Lines Update window allows you to add equipment, tools, fixtures, and documents to a method.

Electronic documents such as CAD drawings may be linked to the inspection method and displayed to the inspector at inspection time. The advantage in this "pre-link" is that the inspector does not have to select the proper drawing or visual aid. A simple click on the icon, and the pre-linked visual aid is displayed, ensuring that the wrong visual aid is not accessed by mistake. Inspection instructions may be defined in detail. Tools, equipment, and fixtures required for the inspections may be defined and linked to the Resources module in the Manufacturing Engineering subsystem.

QA Inspections

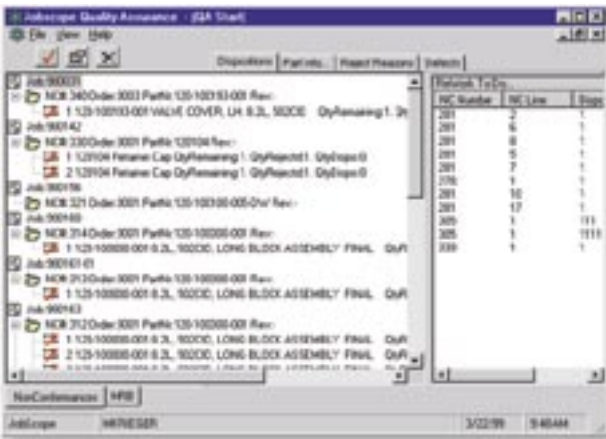
The QA Inspections module is where the actual inspections are performed. The required inspections may be displayed by job and work order. After the inspector logs in, the appropriate inspection is selected in the Inspection Workplace window. Instructions, visual aids, tools, and other resources are displayed to the inspector. The inspector may report one or more rejects and defects. If rejects and defects are reported, the system automatically creates a nonconformance. The nonconformance may be automatically circulated to a predefined signoff list by e-mail. The inspector may also enter a note and serial numbers which failed inspection.



The Inspection Workplace window allows you to view items waiting for inspection.

QA NonConformances

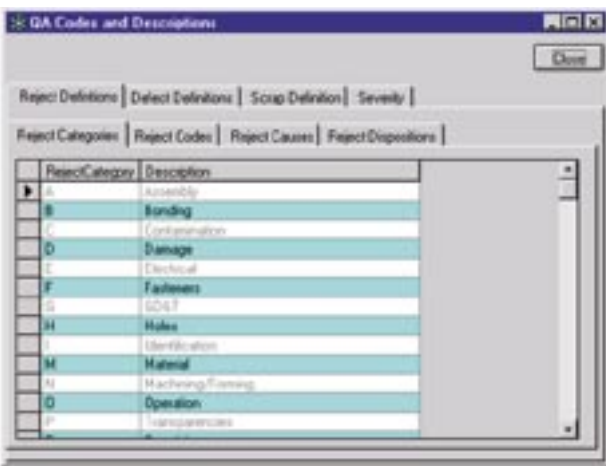
Open nonconformances are displayed in the NonConformances module. Nonconformances may be selected and dispositioned in the main window. The disposition codes are user defined.



This window displays data associated with nonconformances.

If the disposition is Rework, the work order to perform the rework may immediately be created, or put on a "ToDo" list and sent back to Engineering. If the disposition is to MRB, the nonconformance moves to the MRB "ToDo" list. Notes about the disposition may be entered also.

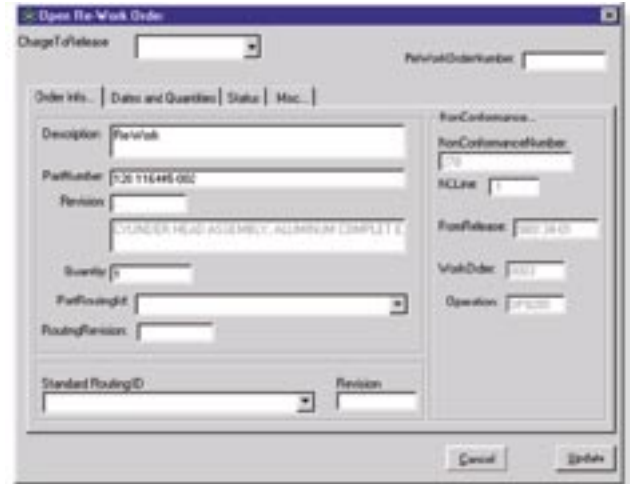
QA Codes



QA Codes are defined through the QA NonConformances module. The QA Codes window allows you to define reason codes for reject, defect, and scrap. These codes are used various times throughout the Quality Assurance subsystem.

QA Rework

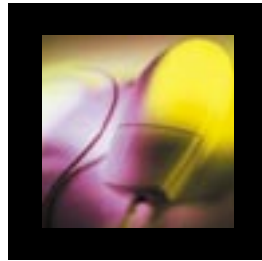
The QA Rework module provides a higher level of nonconformance disposition. Normally reserved for



The Open Rework Order window creates a new work order header to perform the work.

engineering, this higher level provides for rework work order routing selection that is not available to the QA personnel doing routine nonconformance disposition. This module also has a "ToDo" list display.

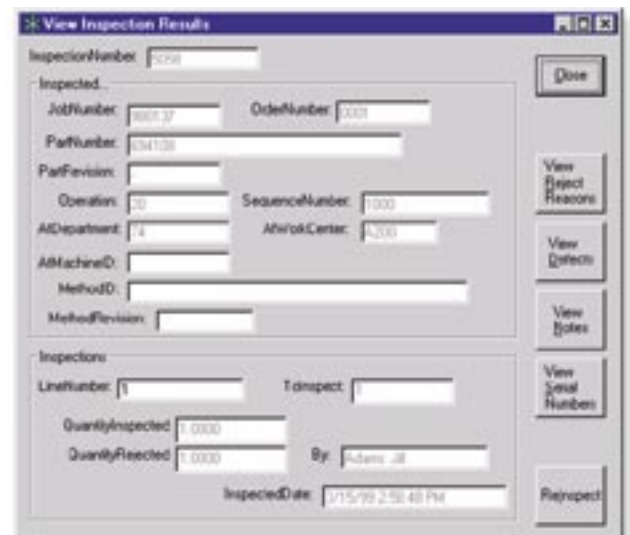
The engineer responsible may create a rework work order in this module.



Inspection History

Inspection history may be searched online by date range or by job.

After an inspection is selected, the View Inspection Results window offers a number of options regarding inspection history. The View Notes button allows the note associated with the inspection to be displayed.



Terms

These terms are used throughout the *Quality Assurance* module.

- *Ad Hoc Inspection* — An ad hoc inspection is an “on the fly” inspection that was not originally planned, but added later due to unforeseen circumstances.
- *Corrective Action* — If the disposition is to re-work, then it is placed on the re-work to do list. Corrective action is applied to the items on the re-work to do list in the form of work orders with associated corrective action routings. Provisions are available to indicate where the charges for the corrective action are to go, such as supplier, customer, or contractor.
- *Disposition* — The determination of what to do with the non-conformance part.
- *Disposition of Non-Conformances* — Each non-conformance must be dispositioned. If the primary disposition is to MRB, then an MRB disposition is required as well.
- *Do Inspection* — This action allows inspections to be selected from the Inspections To Do list, methods can be viewed, and inspections performed with results recorded.
- *Inspection* — These may result in parts that pass the inspection criteria, and ones that do not.
- *Inspection Rejects Create Non-Conformances* — When a part fails inspection, rejects are recorded, a non-conformance record is written. Each non-conformance is assigned a unique non-conformance number.
 - *MRB* — Material Review Board. A disposition can either be final or move to MRB. The MRB will then make the final disposition.
 - *Non-Conformances* — The result of inspections that do not pass the inspection criteria.



required to keep them current, and where and when they will be required is provided by the Resources module.

The creation of pending certification requirements and calibration requirements are done by a program that runs nightly on the server. This program determines which certifications are due to expire, and when calibrations must be performed. The program then sends an e-mail message to each person responsible.

In the Routings module, resources can be linked to routing operations by dragging them to the operation. In the QA Methods module, resources can be linked to inspection methods in the same way.

Features

- Employee skills and skill certifications
- Equipment calibration, serial numbers, and maintenance logs
- Fixture serial numbers and use logs
- Tool bills of material, calibration, fixture requirements, maintenance logs, serial numbers, use logs, and calibration
- E-mail notification of pending calibration and certification requirements
- Scheduling of fixtures, tools, and equipment along with their associated routing operations
- Scheduling of critical employee skills

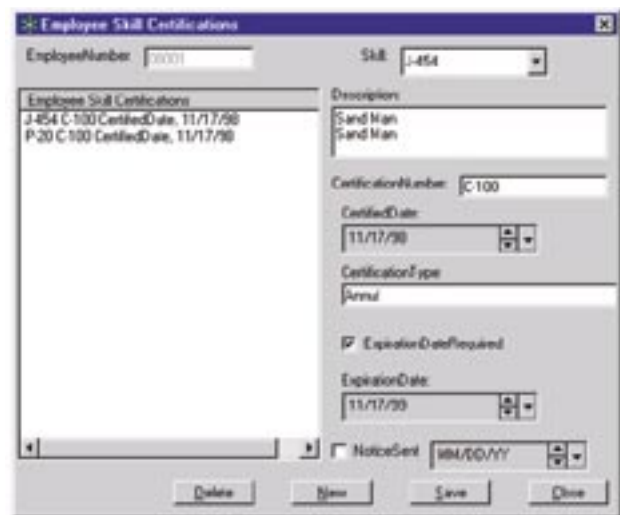
Employees

The *Employee Master* maintains basic information about the employee, such as hire date, birth date, department, supervisor, shift, and notes. The employee's status regarding quality assurance inspections, and a password is also stored with the basic information.

Optional information about the employee that may also be maintained is beeper and mobile phone numbers, security clearances, payroll data, social security number, home address and telephone, emergency contacts, and medical data. A photo image may also be maintained.

Resources

Employee skills, equipment, fixtures, and tools are important resources. Detailed records of these resources, the activities



The *Employee Skill Certifications* window allows you to define and record skill levels and certifications acquired.

The employee's work skills are maintained in the *EmployeeSkills* file. Certifications associated with the employee skills are maintained in the *EmployeeSkillCertification* file.

The system monitors this file and automatically sends e-mail messages to the appropriate person when the expiration date of the certification approaches.



The Resources Skill view allows you to view skills for employees.

Equipment

In Equipment mode, the Resources module lists equipment, equipment serial numbers, and their availability. The Resources module recognizes equipment requirements for routing operations and inspection methods.

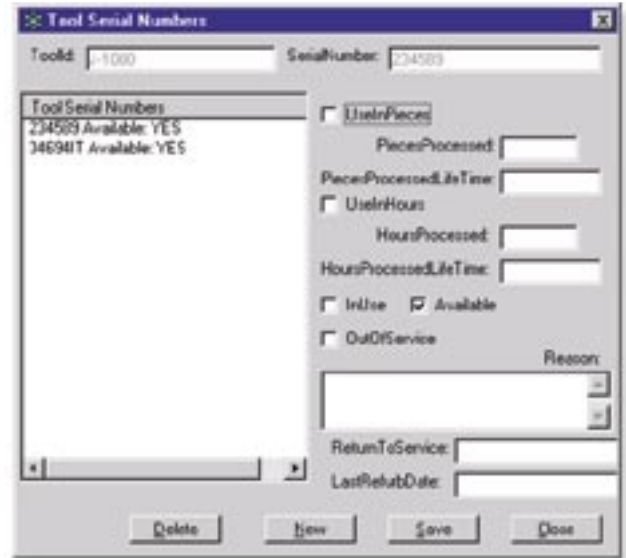


The Resources Equipment view allows you to view required equipment.

Calibration status is maintained in the *EquipmentCalibration* file. The system automatically monitors this file to determine when the next calibration should be performed on each equipment serial number. When an upcoming calibration requirement is noted, the system send e-mail to the appropriate person. Equipment use and maintenance record keeping is also provided.

Tools

In Tools mode, the Resources module lists the tools and their availability status on the main display. The master file for tools maintains information about the tool. The Resources module recognizes tool requirements for routing operations



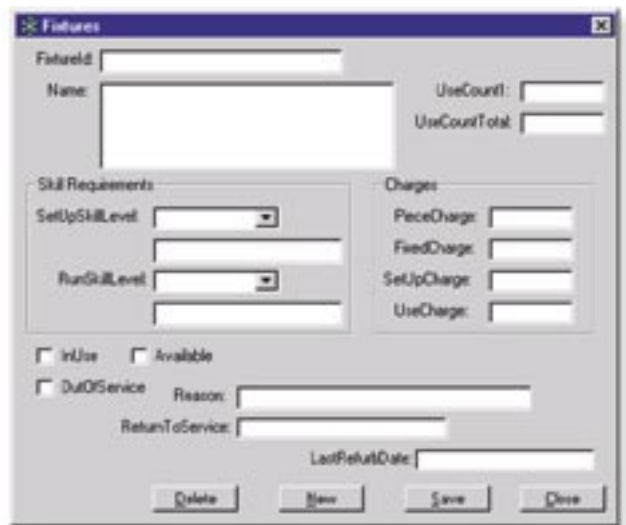
The Tool Serial Numbers window allows you to assign serial numbers to tools.

and inspection methods. Tools may be identified and tracked by serial number. The availability status of each serial number is maintained, along with a tool use log, where tools use information may be stored.



Fixtures

In Fixtures mode, the Resources module recognizes fixture requirements for routing operations, inspection methods, and for tools. The master file maintains fixtures, and you can record serial numbers.



The Fixtures window allows you to maintain fixtures in the system.



JOBSCOPE[®]

Jobscope Corporation
355 Woodruff Road · Suite 406
Greenville · South Carolina
29607
800.443.5794
864.234.4852 (fax)
www.jobscope.com