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| Seattle Precision Machine Shop |
| ERP / MRP System Proposal |
| We ARE Quality! |

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# Seattle Precision Machine Shop

Project Background

Seattle Precision Machine Shop is a job shop which provides contracted machining services to the Aerospace, Marine, Industrial and Automotive industries. We are a largely philanthropic business which provides many We also provide employment to those people with significant barriers to employment, including different types of disability, homelessness, etc.

We are requiring a ERP (Enterprise Resource Planning) and Manufacturing Resource Planning software package with the following requirements:

Technology and Environmental Requirements

Here are the environment and technology requirements we have for our ERP/MRP system

* Able to access from Windows desktop clients and use a dashboard
* Able to access from Android tablet client (on web or App)
* Served by a Dell rackmount server
* SQL backend
* Provide access cloud storage (data backup)
* Provide access to data using Android tablets
* Allow access to system with 25 to 50 users concurrently logged into the system
* Easy to administer and maintain with minimal downtime
* Allow easy Barcode / QR Code / RFID data collection on shop floor using standard equipment using also Android tablets for employees doing warehousing, inventory, purchasing, time keeping,
* Able to securely pass data to the web (Web or Cloud client) with a web front end / dashboard
* Software that is updated or patched regularly

Physical / Hardware Requirements

25 to 50 Dell Workstations (Optiplex)

Minimum of one (1) Dell PowerEdge rackmount R710/R720/R730 Servers

5 Android tablets

Windows Server 2012 / 2016 / 2019 Standard

Database / Software Requirements

*Human Resource Data*

* List of employees
* PDF scanned copy of Application
* Employee Leave/Vacation tracking system
* Training Records Management (copies of certificates)
* Career Development (Training, Safety, etc.) Records
* Photo of Employee (Security/Loss Prevention)
* Time Records (Where (location and area)and when employee works/worked)
* Name of direct manager and/or supervisor
* PDF or scanned copies of Job Descriptions

Customer Data

* Able to easily enter and update start dates and
* Production Records (Work Orders/Job Tickets, etc)

Manufacturing / Production Data

* Able to easily enter and update start dates and
* Employee able to easily clock into each operation via bar code and/or mag stripe reader
* Allows a “Expeditor” to walk around the shop floor to track and update work in progress on the shop floor and change due dates.
* Allow entry of manufacturing plan data (order of operations by numerical increment of 005 or 010)
* Track and Allow entry of Production and Engineering change order(s)

Warehouse / Inventory

* Able to accept input via bar code scanners

Material Inventory System

* Able to easily add materials including type, subtype/subcategory, size (L/W/H), warehouse storage location, quantity, unit (ea.,sq. ft., sq. in., etc.), cost, vendor, lot number, manufacturer

Shipping and/or Receiving System

* Able to easily enter and update shipping dates and
* Items, equipment, material/materiel scanned in and/or out
* Material Handling equipment maintenance records (forklift)
* Bill of Lading and/or Packing List

Maintenance System

* Able to easily enter and update machine maintenance records
* Inventory and OCR scanned copy of manuals, etc.
* Able to track and schedule machine maintenance
* Track maintenance request forms (or allow end user to request maintenance by department/machine)

Quality System

* Able to easily enter and update gage and equipment calibration records including all due dates, add and remove, track gages and equipment (location data), add equipment (gages, etc.)
* Able to enter and track rejection information by part number, lot number, rejection tag number, rejection report number
* Able to enter track production lot data and acceptance/sampling plan data for Statistical Process Control(s) ;ie SPC usually
* Engineering and Manufacturing Drawing records

Accounting Data System

* Payroll
* Taxes

Request for Quote/Quoting Inventory System

Material Inventory System

* Able to easily enter and update start dates and

Purchasing System

* Able to easily add and enter and update Purchase Orders and automatically assign a sequential purchase order number
* Form: Purchase Order
* Form: Material Requisition Form
* Form: Request for Purchase Form

Tooling, Fixture, Die and Template Inventory System

* Able to easily add, enter and update data on Tooling, Fixture, Dies and Templates.
* Form: Tooling Request Form

Safety System

* Able to easily enter and update start dates and