

## Best Practice eXensys – Spare Parts Planning

Exensys Software Solutions Ltd.		AA/B/CCDD V x.y
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### Introduction:

Optimal spares reservation is a mandatory requirement for preventive and predictive maintenance. Spare parts for maintenance activities are required at different intervals. Major reason for a delay in the completion of a maintenance task is non availability of required parts. Hence demand & supply co ordination of spare parts is a vital factor for prompt execution of the maintenance task. Spare Parts required for maintenance are of very high quality so this problem cannot be solved by increasing the inventory stock. This process demonstrates how a maintenance planner can get an overview of potentially necessary parts and their availability, right from the moment a problem occurs.

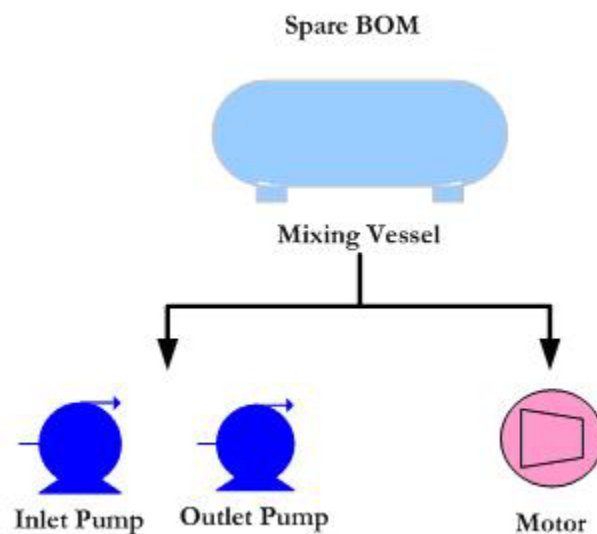
### Overview:

Once a definite maintenance activity is planned then the system should exactly calculate the required items for executing the task at the same time check for the availability of the same also taking into the account the lead time for procuring the part. If the maintenance engineer finds repairing the asset would cost more then he can also recommend the management for disposing the asset with a newer one.

Thus all those involved personnel from production to procurement to the inventory should have a complete transparency about the material availability and the completion of the initiated task. The planned material costs, material withdrawal in the task has to be documented. These form the basis of usage-controlled materials planning. With this process, material stocks of spare parts can be optimized to support maximum availability with minimum stocks.

### How Spare Parts Planning Happen in eXensys Application:

The spare part planning happens only for preventive or predictive maintenance. Let's consider the following example:



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The above mentioned figure is a spare BOM of a mixing vessel. It requires 2 Pumps and one motor. The schedule for carrying out a preventive maintenance is as follows:

Preventive Maintenance Schedule			
Machine Code	Machine Name	Date	Day
1000	Mixing Vessel	1.09.2008	Monday
2000	Mixing Vessel	8.09.2008	Monday
3000	Mixing Vessel	15.09.2008	Monday
4000	Mixing Vessel	22.09.2008	Monday

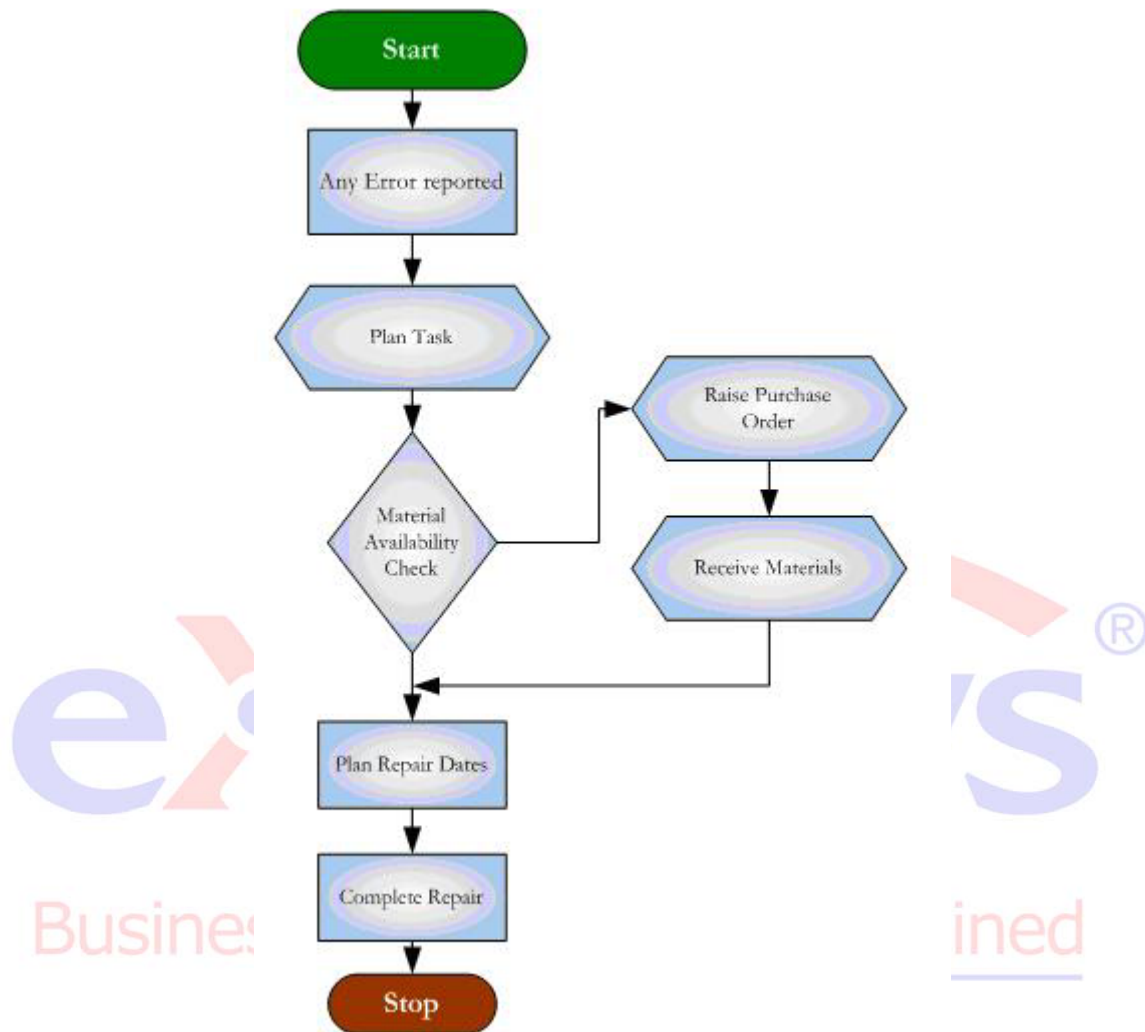
To execute this schedule the following spare parts are required:

Preventive Maintenance Schedule		
Item Code	Item Name	Quantity
1001	Pump(Inlet & Outlet)	8
1002	Motor	4

As mentioned above to carry out the preventive maintenance for the month of September, 8 Nos of item 1001 & 4 Nos of 1002 are required.

So the spare part planning engine will display the requirement (Gross Requirement), information about those items in the inventory will also be displayed. Purchase order will be raised for the required quantity. If the planner wants he can always change the required quantity. Once the materials are procured the maintenance will be executed.

### Spare Part Planning



#### Benefits:

- Immediate Availability of raw materials required.
- Reduction of waiting time as the material made available on time.
- Decision whether to repair or discard the equipment can be made easily as the cost of the spare parts are captured.

#### Conclusion:

Spare part planning helps in meeting the maintenance schedule with a great ease. The planning engine makes sure that the required materials are available on time.

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