

## Industries

- Discrete Manufacturing
- Mixed-Mode Manufacturing
- Light Manufacturing & Assembly
- Repetitive Manufacturing
- Lean Manufacturing
- Make to Order & Job Shop
- Engineer to Order
- Wholesale Distribution

## Required Modules

- Inventory Management (Sage)

## Suggested Modules

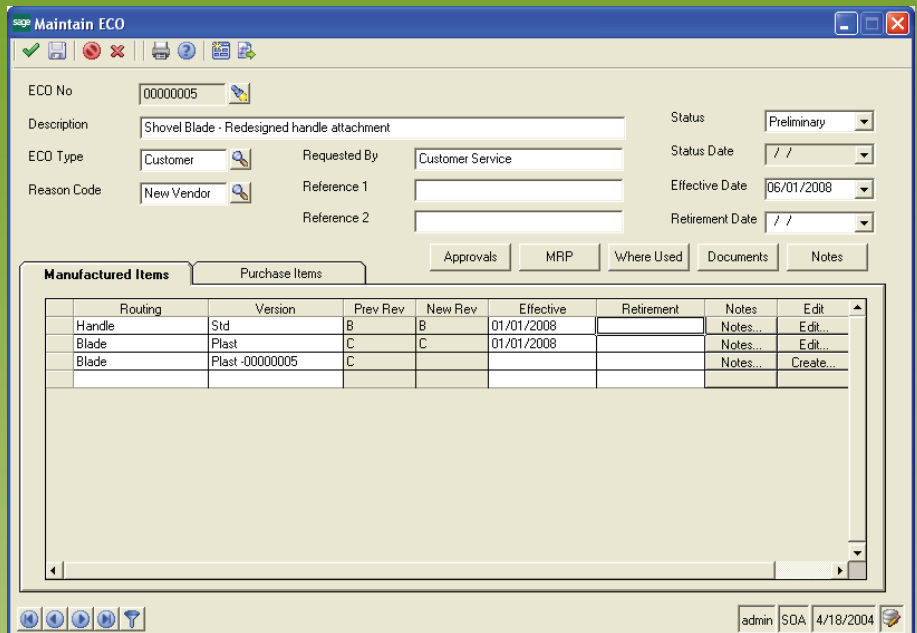
- Light Management (Sage)
- Advanced Manufacturing (Sage)
- Engineering Change Mgmt (Sage)
- Document Control (E2B)
- Enhanced MRP (E2B)

## Benefits Overview

- Purchased Item Revision Tracking
- ECOs for Manufactured Items
- ECO Dates considered by Enhanced MRP for material planning
- Unique ECO numbers assigned to each engineering request
- Reason Codes and ECO Types

## ClientCare Plans

- Free Upgrades and Hot Fixes
- Unlimited Product Support
- Installation Assistance & Training



## Manage Routing Changes & Purchased Item Revisions with Engineering Change Orders

Engineering Change Orders (ECO) helps manage changes to simple or complex bills of material for virtually unlimited manufactured items. In addition, revision levels may be tracked for purchased items sold or used in manufacturing assemblies.

Engineering Change Orders may be routed via email for approval to buyers, engineers, sales, or other employees within your company through the integrated approvals process available from Sage Software's Engineering Change Management module.

Changes are tracked using a unique ECO number. ECOs also include an effective, or implementation date and optional retirement date. A utility is provided so that you can process ECOs that are approved and have met their effective date.

Enhanced MRP (optional module) considers effective dates for

approved ECOs. Future material planning for purchased items and component or finished good work orders will use the item's effective and approved routing version or revision for the selected Enhanced MRP period.

Engineering Change Orders may affect a single or multiple purchased items and/or manufacturing routings and bills of material.

ECO Types and ECO Reason Codes are available as well as multiple Reference Fields are available for reporting and data analysis.

Engineering Change Orders may be optionally integrated with Document Control. This is useful when revision changes need to be made to CAD drawings, quality procedures, or other related documentation as a result of the engineering change.

## Product Features

<b>Item Revisions</b>	Track and manage changes made to purchase items by revisions level. The current, approved revision prints on purchase orders. An item revision history can be viewed from Maintain Items.
<b>Routing Revisions</b>	Manage Engineering Change Order requests for manufactured items. The current, approved routing and bill of material are used for work orders with the revision level printed on work order documentation.
<b>Enhanced MRP</b>	Effective and retirement dates on ECOs are considered by MRP so that item revisions and routing versions used in MRP only consider ECOs that are approved for specific current and future MRP periods.
<b>Multiple Items</b>	ECOs may affect multiple purchased items and/or manufacturing routings and bills of material.
<b>ECO Number</b>	A unique ECO number is assigned to each engineering change request.
<b>Reason Codes</b>	Reason codes may be defined to track Engineering Change Orders. For example, Reason Codes may be used to define customer complaints, quality assurance, or other common reasons for changes made to purchased or manufactured items.
<b>ECO Types</b>	User-defined ECO Types are maintained for reporting and inquiry to further identify ECOs. For example, ECO types can be used to define Vendor revisions versus Engineering revisions.
<b>Approvals</b>	Engineering Change Orders may be integrated with Engineering Change Management from Sage Software to route ECOs through a defined approval process via email.
<b>ECO Notes</b>	Internal notes may be entered for the ECO header or against any routing or purchased item affected by the ECO.
<b>Routing Maintenance</b>	Maintain Routings and Bills of Material from the ECO screen by launching Routing Maintenance and maintaining all edits from the ECO Entry Screen.
<b>Reference Fields</b>	Two Reference Fields are included on the ECO Header or against any routing or purchased item affected by the ECO.
<b>ECO Status</b>	Each ECO will have an assigned Status. New ECOs may be assigned a Preliminary Status to identify ECOs that have not been released. Released ECOs have a Review Status. The ECO Status may be manually set to Approved or automatically set to Approved if all approvals are made through the optional ECM module. ECOs may also be cancelled.
<b>Status Date</b>	The date of the last status change is tracked to identify progress made on each ECO. The status date may also be used for reporting and inquiries.
<b>MRP Inquiry</b>	The Master MRP version can be launched and filtered to display affected items and manufacturer components to help planners determine the most appropriate time to implement engineering changes based on current and projected inventory levels.

## Product Features

### Document Control

Drawings and any documentation related to the ECO may be stored in a file or optionally in a source control program such as Microsoft Visual SourceSafe or SharePoint to protect the documents from being modified, accidentally deleted, or otherwise changed by unauthorized individuals. Check-in and checkout functionality assures that document revisions are tracked by user with date and time stamps for auditing. All documents will open with the default application installed on the PC accessing the document or file. Requires the Document Control module

### Where-Used

Utilities are provided to identify Routings and Bills of Material that may be affected by ECO's containing subcomponents or raw materials affected by new Engineering Change Orders.

### Security

ECO tasks are controlled using Sage MAS 500 system security to prevent unauthorized access to ECO activities.

The screenshot shows the 'Maintain ECO' window with the following details:

- ECO No:** 00000005
- Description:** Shovel Blade - Redesigned handle attachment
- ECO Type:** Customer
- Reason Code:** New Vendor
- Requested By:** Customer Service
- Status:** Preliminary
- Status Date:** / /
- Effective Date:** 06/01/2008
- Retirement Date:** / /

Navigation buttons: Approvals, MRP, Where Used, Documents, Notes

Item	Revision	Vendor	Drawing	Drawing Location	Reference 1	Reference 2	Effective
M-UR01	20080115		P100254-25	Documents	56		02/01/2008

Bottom status bar: admin SOA 4/18/2004