ROMAC SERIES 8
PRODUCTION CONTROL

Version 8.1.2

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OPERATOR'S MANUAL

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Table of Contents

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Overview

The Romac Series 8 Steel Production Control program is designed to manage the “Shop Bill of Material” generally used in the structural steel fabricating and similar industries. Managing of the material list can include keyboard entry of the materials list, import of material lists from other applications, calculation of weights, calculation of surface areas, generating shop cutting list, tracking shop production, tracking shipments to the job site, etc.

Romac Series 8 Production Control is designed for use on Microsoft Windows 7 and Windows 10 operating systems. The software will can also be used on Windows Server 2012 and 2016 through terminal services.

The software is designed for use in a multiuser environment where multiple users can access the same data files. Some operations on the same job may not be available to more than one user at a time but the software is designed to lock additional users out until the initial user has completed their procedure. The operator does not need to be concerned with clashes with other users as the software will take care of these situations.

Software Purchase and Registration

Upon installation of this software, you will be given a 30-day evaluation period which gives you access to most program features.

You may rent or purchase and activate the software at any time during or after the evaluation period. Each registration gives you a license to use a single installation of the software in accordance with the Software License Agreement and Limited Warranty.

General Program User Interface

The Romac Series 8 applications generally follow the guidelines published by Microsoft for the user interface. A basic knowledge of the common Windows user interface should be enough to use the programs features.

One deviation from the Windows standard is that our applications can use the ENTER key in addition to the TAB key to exit a data entry field.

For users of our previous steel related applications, we have retained the same methods for entering steel material descriptions and lengths. The redefined fractions keys are still used to enter fractions in descriptions and dimensions.

The Series 8 Fabrication Package programs are multi-user applications. The program internally handles file locks. If a user attempts an operation that is in conflict with what another user is working on, the program will advice and not allow the second user to proceed.

Start Up

If the default installation was used you have two start up options:

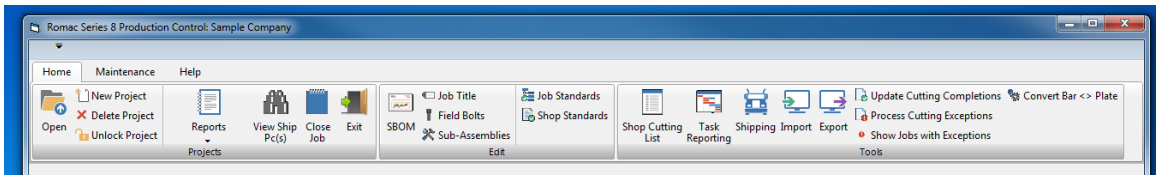
Double click the “ROMAC PC” icon on the desktop.

Or

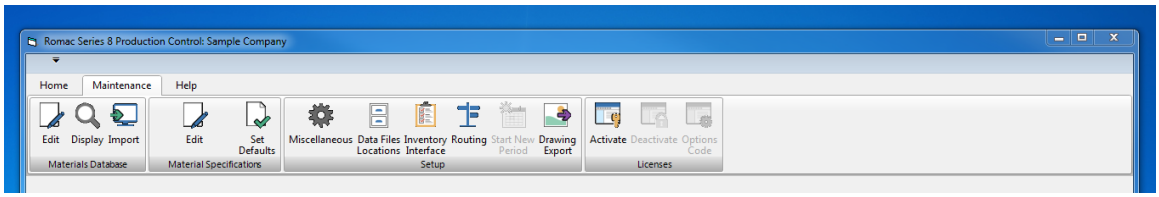
Click the Start button at the lower left corner of your screen. Series 8 Production Control may show near the top of the list with recently used applications. On Windows 7, click on All Programs. Scroll down to Romac Applications then click on Series 8 Production Control.

Menu Structure Summary

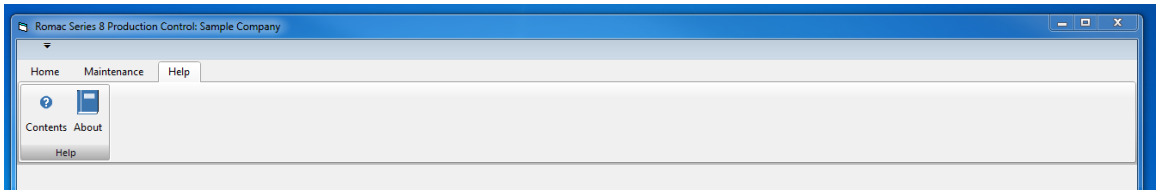
Home



Maintenance



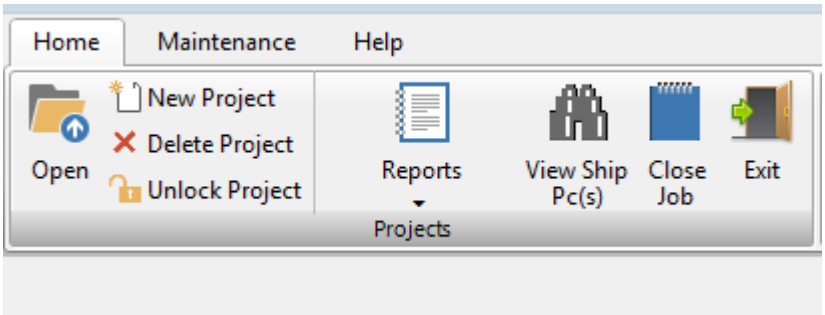
Help



Menu Options Overview

Home | Projects menu options

New Project
This option is used to create a new Production Control project. A unique job number identifies each project. This job number must be a combination of alpha (A through Z), numeric (0 through 9), or the hyphen characters and can be up to 12 characters in length. Data for an individual production control project is stored in a single folder (or directory). The folder name will be the job number preceded by “FP_” (such as FP_999 or FP_A-999).



Open Project
This allows you to open and log in a project. A project can be logged in by several users at the same time but locked for access only when a user is working on an option that requires exclusive access. Exclusive access is required by most operations that change the data files such as creating cutting lists, posting shipping tickets, etc. An individual user can have only one production control project logged in at a time.

Delete Project
Once deleted, there is no reliable method to recover the data other that using an archive or backup copy you had made. It is strongly recommended that you make a daily backup of your data files. Also, prior to deleting a project, you may want to make an archive copy to another disk location or onto a USB drive or some other media.

Unlock Project
If you get a message ‘Job in Use” when attempting certain procedures, another user may have the job locked for some procedure they are using. At other times, due to a system error, an operation may have caused the project to be left in the locked mode. This option will unlock the project. Caution should be used when unlocking a project when another user is in the middle of an operation.

Reports

This option allows you to print most reports related to the Shop Bill of Material. The reports will be described in more detail in another section. Note, some reports give you the option to display a report to the screen. We suggest that you use a pdf printer application to print your reports. This will allow you to view the report, sent it to a printer or discard the report. We like pdfFactory

which is available from fineprint.com. It is an economical product and works well for previewing a report before printing or saving.

View Ship Pc(s)

This option will allow you to display the data for an individual shipping piece including the detail pieces, cutting status, production status and shipping status.

You can also display the production and shipping status for all shipping pieces on the logged job.

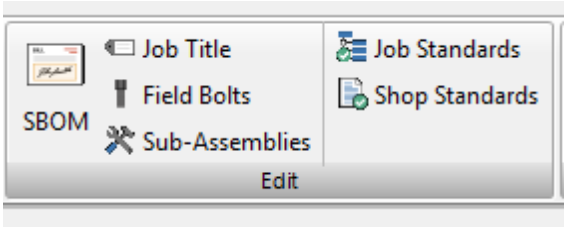
Close Job

This option will log the user out of the current job and allow you log in to another job.

Exit

You can exit the program using this option or by closing the window. In either case, if you have unsaved data, you will be prompted with an opportunity to save the data before exiting.

Home | Edit menu options



Job Title
Basic job (project) information such as customer name, shipping address, etc. is entered using this option. Other job parameters such as SBOM data fields, shipping sequences required, production task milestones required, etc. are entered using this option. See the separate section for additional information.

SBOM
The Shop Bill of Material can be manually entered or edited using this option. See the separate section for bill of material entry specifics. Also, a module is available to import bill of material data from select structural steel detailing packages. See the separate data import section for additional information.

Field Bolts
You have the option to keep field bolts separate from the shop bill of material. If you maintain a separate list for field bolts, you can update the field bolt list using this option.

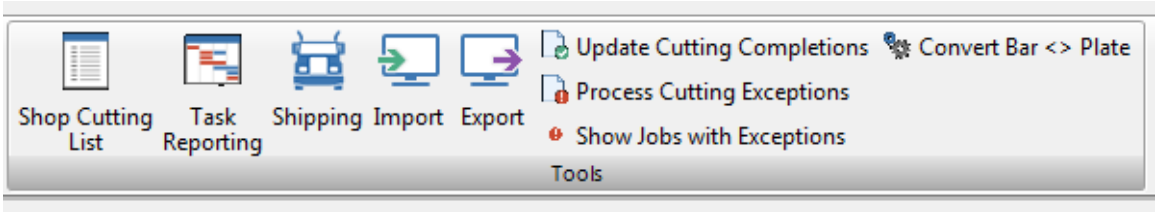
Sub-Assemblies
Sub-assemblies are usually weldments that are common through the job and shop attached to a shipping assembly. They are not commonly used on structural steel jobs but are more common

on plate work. This option allows you to enter and update the sub-assemblies. Additional information can be found elsewhere.

Job Standards
If your project contains common detail parts that are used on multiple drawings, the common details can be entered into the Job Standards table then referenced from the different drawings using the piece mark only. You will not be required to reenter the description on each drawing saving the entry time and reducing the chance of making a data entry mistake.

Shop Standards
Shop Standards are similar to Job Standards with the exception that they apply to all jobs. Shop standards could be used if you have standard shop connections or similar type standards.

Home | Tools menu options



Shop Cutting List
This option is used to create a shop cutting list from the shop bill of material. A project can contain several cutting lists. The shop cutting list is explained in detail in a later section. The 'Update Cutting Completions', 'Process Cutting Exceptions' and 'Show Jobs with Exceptions' menu items are related to the shop cutting list when the bar coded cutting list option is used.

Task Reporting
Shipping pieces can be tracked through shop production. Typical production milestones might be Fit Up, Inspection, Cleaning, Painting, Etc. This option is used to enter, post and print production milestones.

Shipping
All shipping options are available through this option. This includes shipments to the jobsite as well as shipments to outside processors such as galvanizing, cleaning, painting, etc.

Import
Shop Bill of Material can be manually entered into the system or imported from selected detailing systems. Currently, the program supports importing from BIF and KISS file formats.

Export
The Shop Bill of Material can be exported to a csv file which can be read by Excel and selected other applications. KISS formatted files can also be exported.

Convert Bar <> Plate
This option can be used to Shop Bill of Material items from Plate to Bar or from Bar to Plate. This on an item by item basis. You would want to make the conversions before creating the shop cutting lists.

Description Data Entry

The description entry is made by entering the shape code followed by [ENTER] (or the space bar) then the description dimensions. For most entries, if the description contains fractions, the fraction entry is made using re-defined fractions keys. This allows you to make fraction entries using one keystroke. The re-defined fraction keys are:

W=1/16, E=1/8, R=3/16, T=1/4, Y= 5/16,
U=3/8, I=7/16, O=1/2, S=9/16, D=5/8,
F=11/16, G=3/4, H=13/16, J=7/8, K=15/16

The shape codes and corresponding description formats are:

Note, these examples are based on US standard description entry. Metric description entries are similar except fractions are not applicable. Depending upon whether you are updating a US standard or metric item, the appropriate Description Type at the upper right of the window must be checked.

Unless noted, the following shapes can be used for shipping pieces and detail pieces alike. Some shapes are applicable for shipping pieces only or detail pieces only and are noted if the limitation applies.

W, WT, C, MC, S, ST, M, MT, & HP - (Structural shapes as per AISC designations). Description is entered by typing in the shape followed by [ENTER] (or space) then the depth, then X, then the weight per foot followed by [ENTER]. Spaces are automatically inserted before and after the 'X'. Use the decimal point where required. Optionally, the '+' key can be used rather than 'X'.

Example: W 10 x 22

L – (Angles). Input is in inches and inch fractions. Description is entered by typing in the shape followed by [ENTER] (or space) then leg 1, then X, then leg 2, then X, then the thickness followed by [ENTER]. Fractions must be entered using the redefined single key. Spaces are inserted by the computer where required for clarity.

Example: L 3 1/2 x 3 1/2 x 5/16

PL - (Plate). Input is in inches and inch fractions. Description is entered by typing in the shape followed by [ENTER] (or space) then the thickness, then X, then the width followed by [ENTER]. Maximum thickness is 9 15/16". Fractions must be entered using the redefined single key. Spaces are inserted by the computer where required for clarity.

Example: PL 1/2 x 15 ¾

PLD - (Plate – decimal thickness). Input is in decimal inches for the thickness and inches and inch fractions for the width. Description is entered by typing in the shape followed by [ENTER] (or space) then the thickness in decimal inches, then X, then the width in inches and inch factions followed by [ENTER]. Thickness can be entered up to 3 decimal places. Fractions for the width must be entered using the redefined single key. Spaces are inserted by the computer where required for clarity. Decimal thickness plate must be added to the materials database. The program does not convert between fractional thicknesses and decimal thicknesses (PL ½ and PL .500 are not the same as far as the program is concerned).

Example: PL .500 x 15 ¾

PLA - (Plate - area). Input is in inches and inch fractions for the thickness and decimal square feet for the area. Description is entered by typing in the shape followed by [ENTER] (or space) then the thickness, then X, then the area in decimal feet followed by [ENTER]. Weight is

calculated using the PL thickness entry in the materials database. Fractions must be entered using the redefined single key. Spaces are inserted by the computer where required for clarity.
Example: PL 1/2 x 34.45

PLDA - (Plate – decimal thickness x area). Similar to PLA except thickness is entered in decimal inches.
Example: PL .500 x 34.45

BR - (Flat bar). Input is in inches and inch fractions. Description is entered by typing in the shape followed by [ENTER] (or space) then the thickness, then X, then the width followed by [ENTER]. The maximum width/thickness is 99 15/16".
Example: BR 1/2 x 4

SQ - (Square bar). Entry is in inches and inch fractions. The description is entered by typing in the shape followed by [ENTER] (or space) then the bar dimension followed by [ENTER]. Maximum dimension is 9 15/16". Fractions must be entered using the redefined single key.
Example: SQ 1/2

RD - (Round rod). Entry is in inches and inch fractions. The description is entered by typing in the shape followed by [ENTER] (or space) then the diameter followed by [ENTER]. Maximum diameter is 9 15/16". Fractions must be entered using the redefined single key.
Example: RD 3/4

RB - (Rebar). The description is entered by typing in the shape followed by [ENTER] (or space) then the bar size followed by [ENTER]. Allowed bar sizes are 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, and 18.
Example: RB 4

GA - (Gauge material). The description is entered by typing in the shape followed by [ENTER] (or space) then the gauge thickness, then X, then the width followed by [ENTER].
Example: GA 11 x 24

FP - (Floor Plate). Entry is similar to plate (PL).
Example: FP 3/8

TS - (Square and rectangular tube). Entry is similar to Angle. The wall thickness must always be the last entry. If the wall thickness entry is 7 - 28, then a gauge wall thickness is assumed.
Example: TS 4 x 4 x 1/4

TO - (Round tube). Entry format is shape followed by [ENTER] (or space) then the outside diameter in inches and inch fractions), X, then the wall thickness. The wall thickness must always be the last entry. If the wall thickness entry is 7 - 28, then a gauge wall thickness is assumed.
Example TO 4 x 1/2

PI - (Pipe). Schedule pipe can be entered using this Shape code. The entry format is Shape, [ENTER] (or space), diameter, <X>, then the schedule followed by [ENTER].
Example: PI 4 x 40

PS, PE, and PD - (Pipe). Standard (PS), Extra strong (PE), and Double extra strong (PD) pipe can be entered using these Shape codes. The entry format is Shape, [ENTER], then the diameter followed by [ENTER].
Example: PS 4
PE 4
PD 4

CB - (Bar Channel). Entry is similar to Angle.

Example: CB 1 1/2 x 1/2 x 1/8

TB - (Bar Tee). Entry is similar to Angle.
Example: TB 1 1/2 x 1 1/2 x 3/16

BTH - (High strength Bolt). Enter the shape then [ENTER] (or space), diameter, then X, then the length followed by [ENTER]. All entries are in inches and inch fractions.
Example: BTH 3/4 x 2 1/2

BTM - (Machine Bolt). Enter the shape then [ENTER] (or space), diameter, then X, then the length followed by [ENTER]. All entries are in inches and inch fractions.
Example: BTM 3/4 x 2 1/2

BTN - (Nut). Enter the shape then [ENTER] (or space), diameter in inches and inch fractions followed by [ENTER].
Example: BTN 3/4

WHF - (Flat Washer). Enter the shape then [ENTER] (or space), diameter in inches and inch fractions followed by [ENTER].
Example: WHF 3/4

WHB - (Bevel Washer). Enter the shape then [ENTER] (or space), diameter in inches and inch fractions followed by [ENTER].
Example: WHB 3/4

WHL - (Load indicator Washer). Enter the shape then [ENTER] (or space), diameter in inches and inch fractions followed by [ENTER].
Example WHL 3/4

BTE - (Expansion Bolt). Enter the shape then [ENTER] (or space), diameter, then X, then the length followed by [ENTER]. All entries are in inches and inch fractions.
Example: BTE 3/4 x 4

BTW - (Wedge insert). Enter the shape then [ENTER] (or space), diameter in inches and inch fractions followed by [ENTER].
Example: BTW 3/4

AB - (Anchor Bolt). Enter the shape then [ENTER] (or space), diameter, then X, then the length followed by [ENTER]. All entries are in inches and inch fractions.
Example: AB 3/4 x 12

SC -(Shear Connector). Enter the shape then [ENTER] (or space), diameter, then X, then the length followed by [ENTER]. All entries are in inches and inch fractions.
Example: SC 1/2 x 4

GR - (Bar Grating). Enter the shape then [ENTER] (or space) then the bearing bar depth, then X, then the bearing bar thickness, then X, then the thickness followed by [ENTER]. All entries are in inches and inch fractions.
Example: GR 1 1/4 x 3/16 x 24

REM - (Regular Expanded Metal). Enter the shape then [ENTER] (or space) then the diamond SWD, then X, then the gauge thickness, then X, then the width followed by [ENTER].
Example: REM 3/4 x 16 x 24

FEM - (Flattened Expanded Metal). Enter the shape then [ENTER] (or space) then the diamond SWD, then X, then the gauge thickness, then X, then the width followed by [ENTER].

Example: FEM 3/4 x 16 x 24

SI - (Special item with weight calculated per each or item). Used for entries such as castings where the weight is calculated by the item. SI can also be used for items that do not have a weight. At Shape type SI [ENTER], then a 24 character description followed by [ENTER]. Redefined fraction keys are not available for the description part of this entry.
Example: SI #101 CASTING

SA - (Special item with weight calculated by Area). Used for items such as grating where weight is calculated by area. At Shape type SA [ENTER], then a 15 character description followed by [ENTER] then the width. Redefined fraction keys are not available for the description part of this entry but must be used in the width entry section if applicable.
Example: SA 1/8" PERF. PL x 24

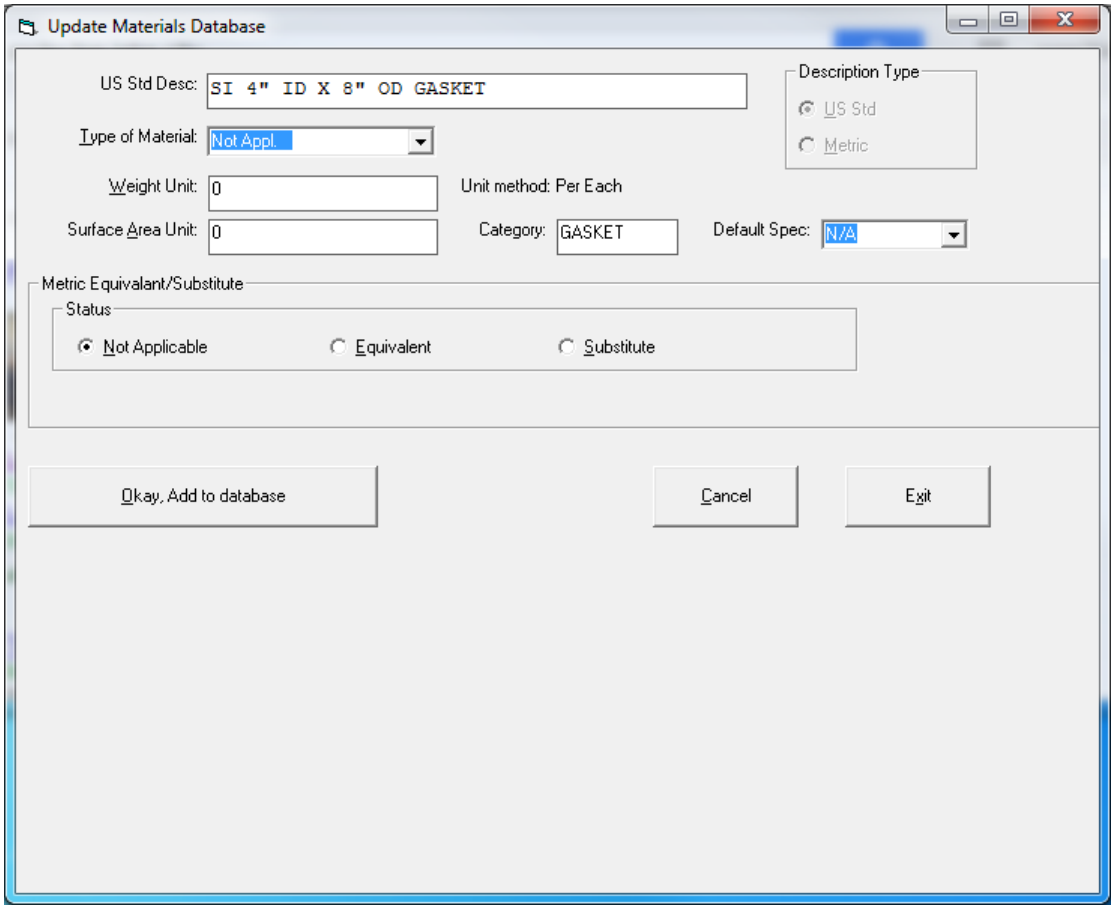
SL - (Special item with weight calculated by Length). Used for items such as extrusions or aluminum sections. At Shape type SL [ENTER], then a 24 character description followed by [ENTER]. Redefined fraction keys are not available for the description part of this entry.
Example: SL #101 EXTRUSION

PN shape (Part Number) … The PN shape is similar to the SI shape but gives the ability to add a longer expanded description. The intent is to allow a part number of up to 24 characters plus a part description of virtually unlimited character length. For example, you might have a fictional Wagner part and description as follows:

> WAGWB1000 *(the part number)*
> WAGNER WALL RAIL BRACKET FOR 1 1/2” O.D. RAIL AND 2” WALL CLEARANCE
> *(the description which could contain several lines)*
>
> The PN shape with its expanded description must be entered into the Materials Database. Use the menu option Maintenance | Materials Database | Edit Materials Database.
>
> The PN shape can be used in the Production Control SBOM, Purchase Order and Inventory Control programs

Description Categories Shortcut

> The Romac Series 8 software allows you to assign categories to SI, SL and PN shapes. The purpose is to easily duplicate syntax when entering those shapes into the SBOM, Purchase Order or Inventory master files. To use the category feature, you must first enter the item into the Materials Database. The initial entry is similar to any addition to the Material Database except you will be prompted for an optional Category and Default Spec.



When entering into the Materials Database, you can create your own categories on the fly.

To use this feature in SBOM, Purchase Order or Inventory Master File entry, rather than typing in the shape and description, type in the category. A list of all SI, SL or PN items that have been added to the Master Database under that category will be listed allowing you to pick the desired item.

To see a list of all categories you have used, type in CTG rather than the shape or a category name.

D – (Ditto the previous description). Dittos the previous line item description only. You must enter the length, remarks, etc. Applicable to detail pieces only.

SD – (Shipping Description). Used for a shipping description (such as FRAME, BEAM, COLUMN, etc.) that is used to describe the item but is not actual material. Shipping Descriptions are listed on the shipping ticket but are not included on shop cutting lists. The “SD” shape is applicable to shipping pieces only.

E – (Exists on current drawing). If the current detail piece (including identical piece mark) has been previously entered on the drawing, it is not necessary to re-enter the description, length, etc. The “E” shape will be retained for screen displays but the description, etc will be listed on printed reports. The “E” shape is applicable to detail pieces only.

JS – (Job Standard). Pulls the description from a matching piece mark in the Job Standards table. Each job standard table is specific to that job only. This shape is applicable to detail pieces only.

SS – (Shop Standard). Pulls the description from a matching piece mark in the Shop Standards table. Shop standards are available for all jobs. This shape is applicable to detail pieces only.

Reports

The reports are designed to print to Windows printers using the Courier New font. Reports will adjust the font size to fit the sheet width using the nearest available size font. If the font size chosen by the program results in a report with characters too small to read, you can change the report to print in landscape mode or in some cases, the report criterion allows exclusion of certain columns in the printout.

Reports will print to the default printer device using the default orientation (portrait or landscape). To print to a printer (or orientation) other than the system default, you have two choices. The system default printer can be changed from the Windows desktop or the printer can be changed from within the program.

To change the selected printer from within the program, after selecting the report to print, click the "Printer Setup" button. The printer you selected will then be used for all subsequent reports printed from that application until you change the selected printer or exit the application. However, the orientation will revert back to the printer's default after each report is printed.

Shop Bill of Material
This option allows printing of the Shop Bill of Material with weight extensions. The material list is printed by drawing number. Other selection criterion is available for this report.

Master Shipping List
This option prints a listing of Shipping Pieces with descriptions, lengths, etc.

Sorted Cutting List
This option allows printing of a previously created Shop Cutting list.

Shipping Piece Status Report
This options prints a listing of Shipping Pieces similar to the Master Shipping List with the addition of production and shipping history for each piece.

Shortage Report
This option prints a listing of Shipping Pieces that have not been completed through a selected production milestone task or a listing of Shipping Pieces that have not been shipped.

Cumulative Report
The Cumulative Report lists bill of material weights, job weights completed through the production milestone tasks, and shipped weights. Weights are broken down into 'life to date' (L-T-D) and 'period to date' (P-T-D) totals.

The program is set to recognize a new period at the beginning of each month. At startup, the program will remind you when a new period is beginning. You must manually select the "Maintain | Start New Period" option to begin the new period. This will give you the chance to complete entry and posting of production tasks and shipments so that weights will be shown in the correct

period. Production tasks and shipments for next period can still be entered and posted but they will not show up on the Cumulative Report until you select the “Start New Period” menu option.

The program allows posting to two different periods, the current period and the next period. For example, if the current period has an ending date of July 31, all transactions dated July 31 or earlier will be posted to the current period, all transactions dated after July 31 will be posted to the next period. If a transaction date is more than one month prior to the current period ending date, the transaction will be posted to the current period even though it belongs in an earlier period.

Weights and values posted into the next period are not available for viewing or reporting until the current period is closed. When a period is closed, the period ending date is advanced one month and any values posted into what was the next period will be added to the new current period.

Job Standards Report
This is a listing of Job Standards (materials) for the selected job.

Shop Standards Report
This is a list of Shop Standards.

Tools

Shop Cutting List
A shop cutting is a group of materials selected from the shop bill of material. See the separate section for detailed information.

Task Reporting
Task reporting allows you to enter and post production milestone data into the system. This production data allows tracking the progress of a job through the shop. See the separate section for additional information.

Shipping
This section allows you to enter and post shipping information. Shipping tickets can be printed as well as tracking completion and shipping progress of the job. See the separate section for additional information.

Import Data
Shop Bill of Material data files generated from selected steel detailing programs can be imported into the program. The ‘KISS’ data standard is used for this import. Any application generating files compatible with this standard should be capable of generating data files that can be imported into the Romac Series & Production Control program. See the separate section for additional information.

Maintenance

See the Fabrication Package Operator’s Manual for information relating to the following options not expanded upon here.

Materials Database
Edit Material Database
Display Materials Database
Import

Material Specifications
Edit Specifications Table
Edit Default Specifications

Setup - Miscellaneous

Company Name
This option allows you to enter your company name and address. The company name is printed at the top of each printed report. The company name and address is printed on the shipping tickets.

Task Headings
Tasks are Production Milestones and could include milestones such as 'FIT UP', 'INSPECT', 'CLEAN', 'PAINT', etc. This option is used to enter the tasks that can be specified on each project. When a project is added to the system, you must denote which tasks are applicable to that project from this list of global tasks. You can have a maximum of 30 tasks. Milestone Tasks apply to shipping assemblies only. If one of the tasks is denoted for the cutting operation, that task is updated when the main material item for a shipping assembly is processed through the cutting list

User Preferences
SBOM Save Value is left over from an older version and should be set to 0'

System Settings
Tube Shape preference determines the tube shape listed on screen displays and reports as 'TS' or 'HSS'.

'Cut Tracking' determines if a material item can be added to more than one shop cutting list. When 'Cut Tracking' is on, material can be only be added to a single cutting list. When 'Cut Tracking' is off, the same material can be added to multiple cutting list and it is up to the user to keep track of what material is included on which cutting list (not recommended because the possibility of cutting the same material more than once). When this setting is 'Always On', you do not have the option to change Cut Tracking behavior when a new project is added to the system. 'User Select' allows the user to change Cut Tracking behavior.

MSL Types
Additional columns can be added to the Master Shipping List. This allows you to use it as a manual inspection report or other similar purposes. You can have up to three different Master Shipping List formats.

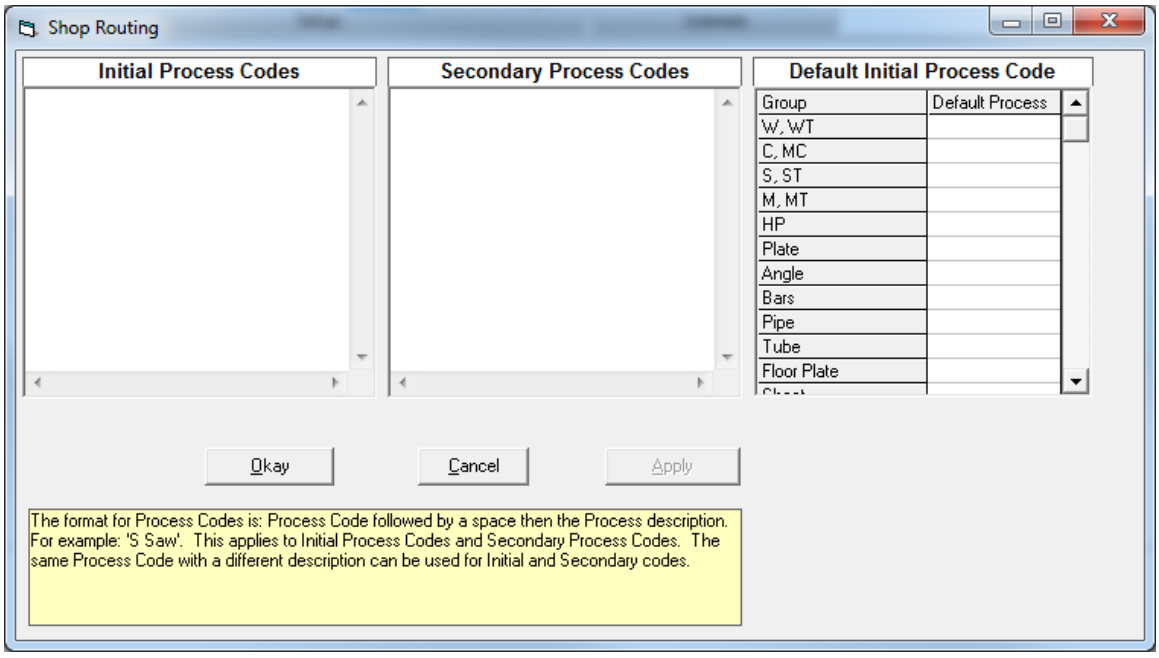
Data Files Location
This option allows you to link the program to your data files. Information is included in the installation instructions.

Inventory Interface

If you are interfacing with the Series * Inventory, check the box on this screen. If the Inventory software is installed, the data location will be automatically populated.

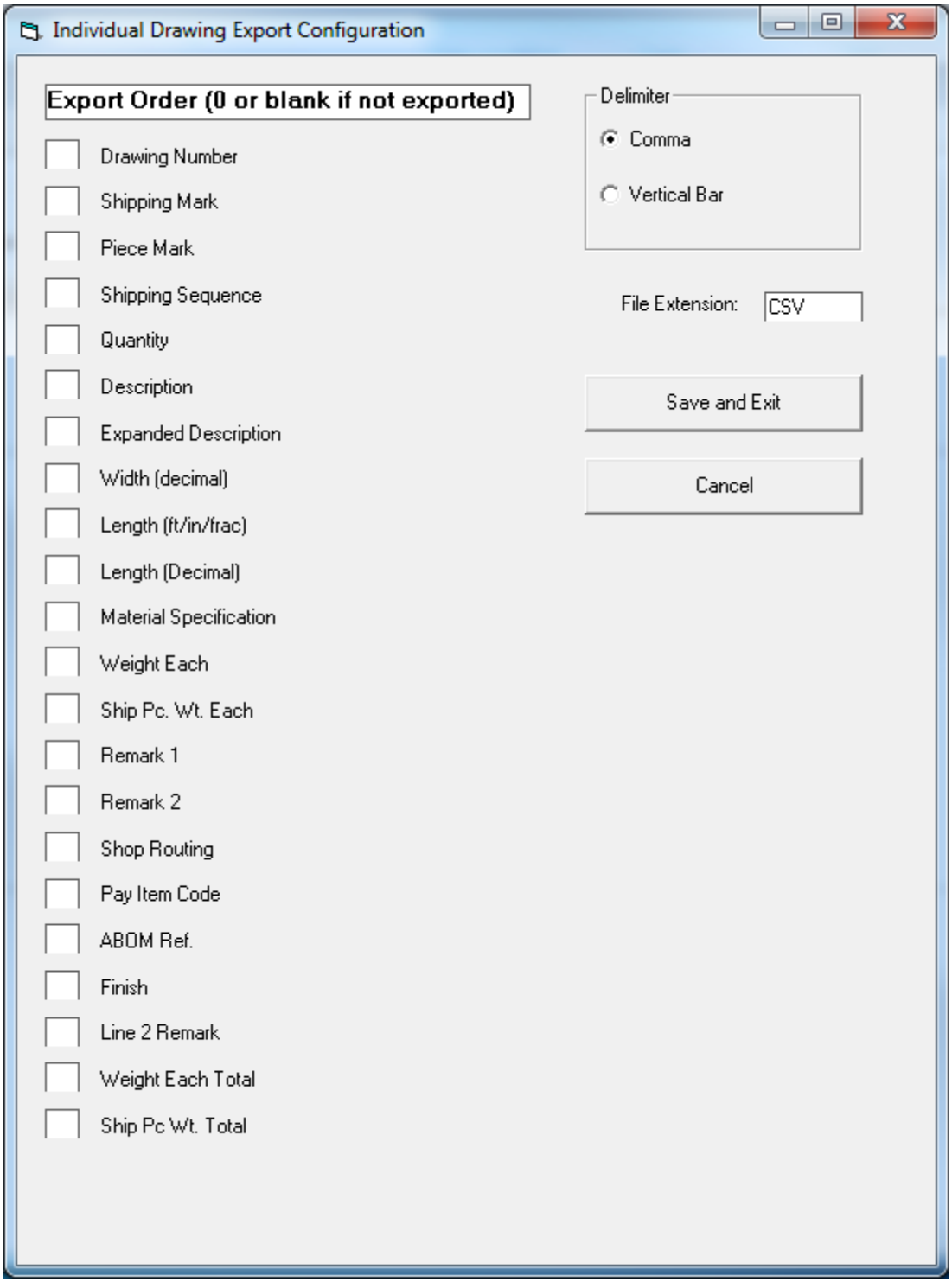
Routing

For future implementation.



Drawing Export

When the SBOM is exported to a text file, the entries on this screen denote the order that the rows are listed in the export file. Normally, you would export to a comma delimited CSV file that can be opened in Excel or a similar application. The export order is global and applies to all projects.


Individual Drawing Export Configuration
Export Order (0 or blank if not exported)
Drawing Number
Shipping Mark
Piece Mark
Shipping Sequence
Quantity
Description
Expanded Description
Width (decimal)
Length (ft/in/frac)
Length (Decimal)
Material Specification
Weight Each
Ship Pc. Wt. Each
Remark 1
Remark 2
Shop Routing
Pay Item Code
ABOM Ref.
Finish
Line 2 Remark
Weight Each Total
Ship Pc Wt. Total
Delimiter
Comma
Vertical Bar
File Extension:
CSV
Save and Exit
Cancel

Licenses

Allows you to activate or deactivate a license. If moving a license from one computer to another, you can deactivate the license then reactivate on the replacement computer. It will also be necessary to enter the Software Options Code included with your license. If using the named user version of the application, you can enter a list of named users at 'Options Code'.

Help

Contents
On line help files.

About
Displays information showing program version, license status, program serial numbers, and contact information.

Project Job Numbers

A unique job number identifies each production control project. This job number is limited to a combination of alpha (A through Z), numeric (0 through 9), or the hyphen characters and can be up to 12 characters in length.

Data for each production control project is stored in a single folder (or directory). The folder name will be the job number preceded by "FP_" (such as FP_999 or FP_A-999). It is strongly recommended that a daily backup be made of the Romac Fabrication Package data files. If the hard drive is damaged or the data file is corrupted, the only way to recover your data is from a backup. See the Fabrication Package Operator's Manual for additional information regarding data backup and restore.

All data files related to a project will be in the job folder (FP_nnnn). Individual files should not be deleted from this folder. If restoring production control job files from a backup or copying job files from another location, all files in the FP_nnn folder should be deleted before restoring the backup. If you don't feel comfortable deleting the files, copy them to a temporary location before deleting. Failure to maintain all files in the FP_nnn folder as a synchronized unit could result in file corruption and lost or inaccurate data.

Edit - Job Title

The master job information can be edited immediately after creating a new project or by selection the menu option 'Edit | Job Title'. The edit screens are:

General

The General tab allows you to Job Name, Location, Customer, and Customer Order fields. This data item will show up on most printed reports.

Field Bolts: Determines how field bolts are handled for the project. They can be 'Included in the SBOM' (which we don't recommend), 'Maintained in a Separate List' (within the Romac application) or 'Don't Track' (field bolts are tracked outside the Romac application).

Description and Dimension Type: Sets whether the job uses US Std. (imperial) or metric material descriptions and dimensions. Normally, descriptions and dimensions for all entries within a job would be either US std. or metric but the system will allow descriptions and dimensions of different types but can present problems and is not recommended. Once bill of material data has been entered for a job, this option cannot be changed.

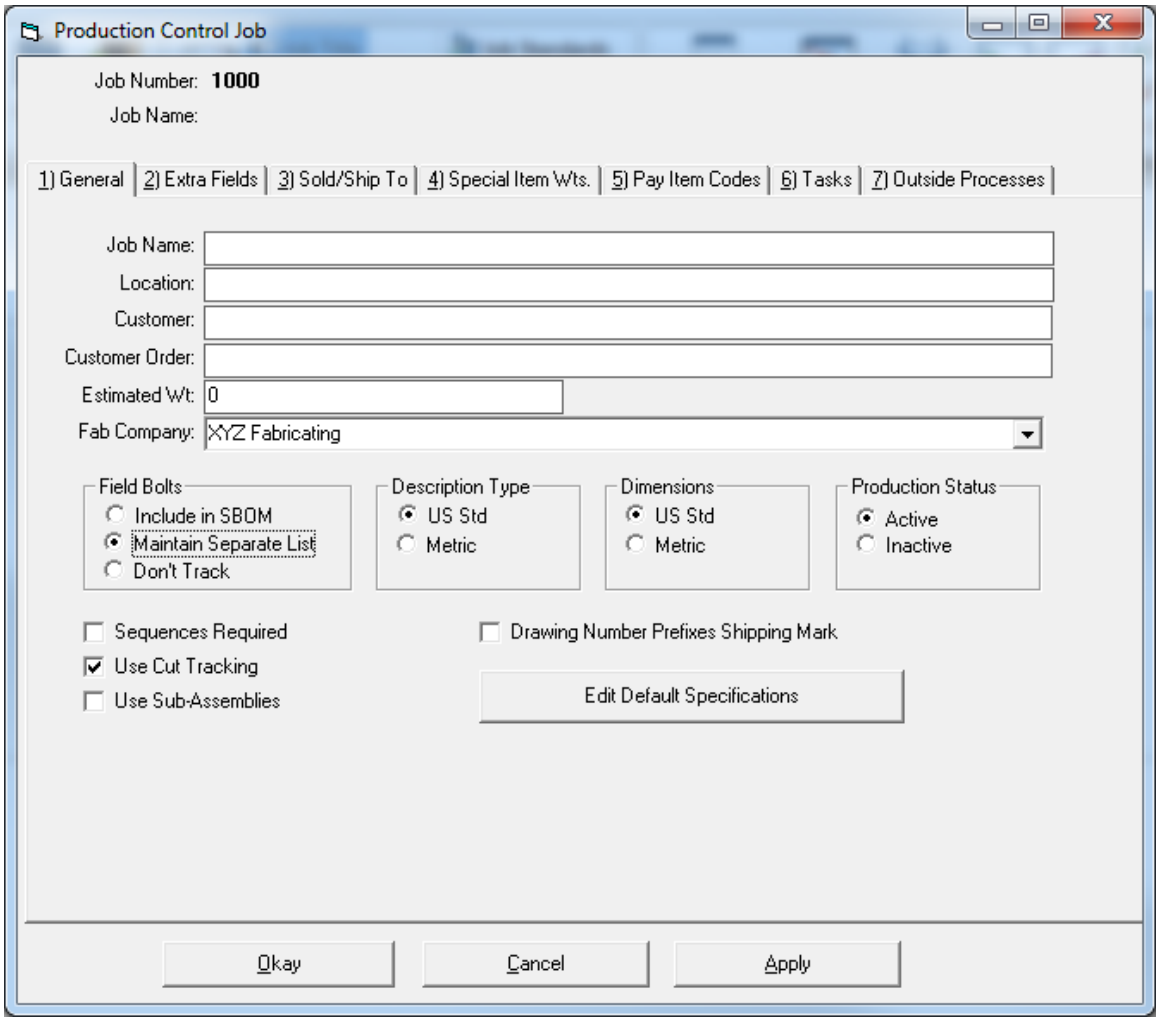
Production Status: (Active or Inactive) determines whether a job is included on cumulative reports and whether the job is available in the task data entry module.

Sequences Required: Denotes whether shipping sequences are used for the job. If used, you may have up to 45 sequences per drawing and an unlimited number per job. Sequence descriptions can be up to 3 alphanumeric characters. Sequences can be turned on at any point during the life of a job. If turned on after bill of material has been entered for a job, all pre-existing

data is assigned to sequence “1”. Once turned on and bill of material data has been entered, sequences cannot be turned off.

Use Cut Tracking: This option links bill of material items to a shop cutting list batch. With this option turned on, whenever a shop cutting batch is created, all bill of material items that are included with that batch are marked with the batch number and quantity. This allows easy tracking of which cutting batch (if any) that a bill of material item is included. More importantly, a SBOM item will not be listed on more than one cutting list if ‘Use Cut Tracking’ is checked. If a cutting list is deleted or an item is deleted from a cutting list, the item can be added to a different cutting list.

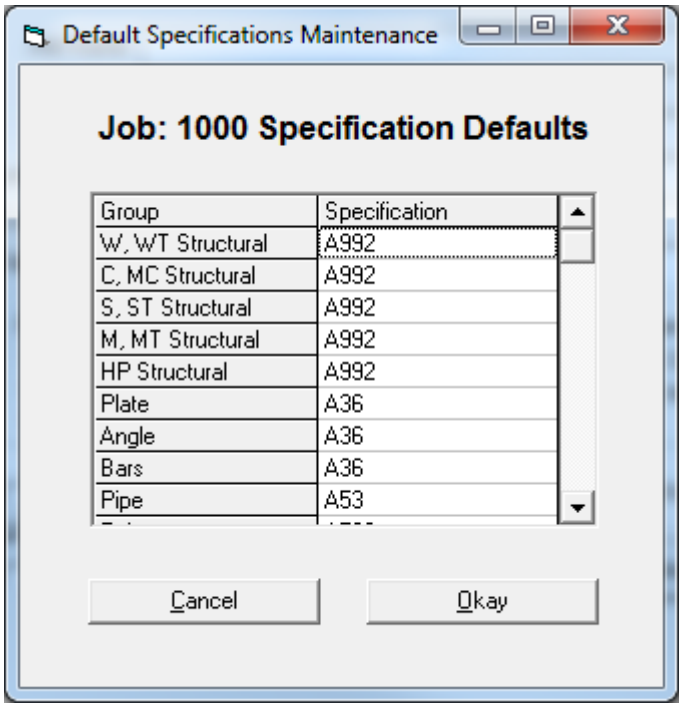
Use Sub-Assemblies: Sub-assemblies are usually weldments that are common through the job and shop attached to a shipping assembly. They are not commonly used on structural steel jobs but are more common on plate work. This option allows you to enter and update the sub-assemblies.



Edit Default Specifications

The Default Specifications table determines which material specification is assigned to a bill of material item at data entry. The default should be set for the most prevalent material specification used for the shape. You are never locked into the default; the material specification for the item can always be changed as required.

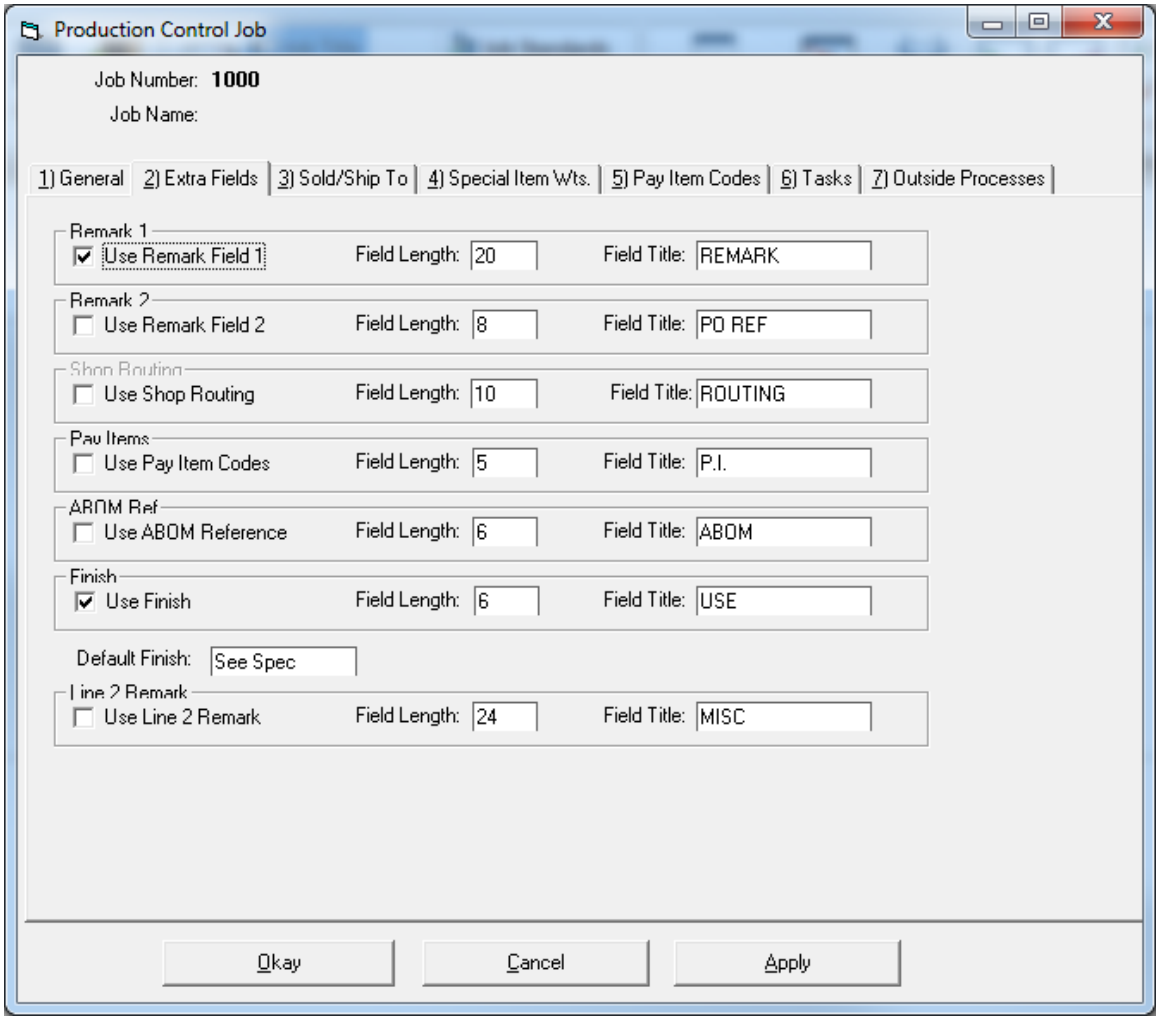
The Edit Default Specifications button allows you to edit the specification defaults table. This table is used by this job only. The master default specification table can be edited elsewhere.



Extra Fields

The Extra Fields tabs allows you to denote which extra data fields will be required for the job's shop bill of material, the length of those fields, and the field titles. Currently, the software allows two remark type fields and an Advance Bill of Material reference field. Maximum total length of the two remark fields is 30 characters.

A field can be added after a job has commenced but once added, the extra field parameters cannot be changed.



Sold/Ship To

This tab is used to enter the Sold to and Ship to information that will be printed on the Shipping Tickets.

Special Item Wts.

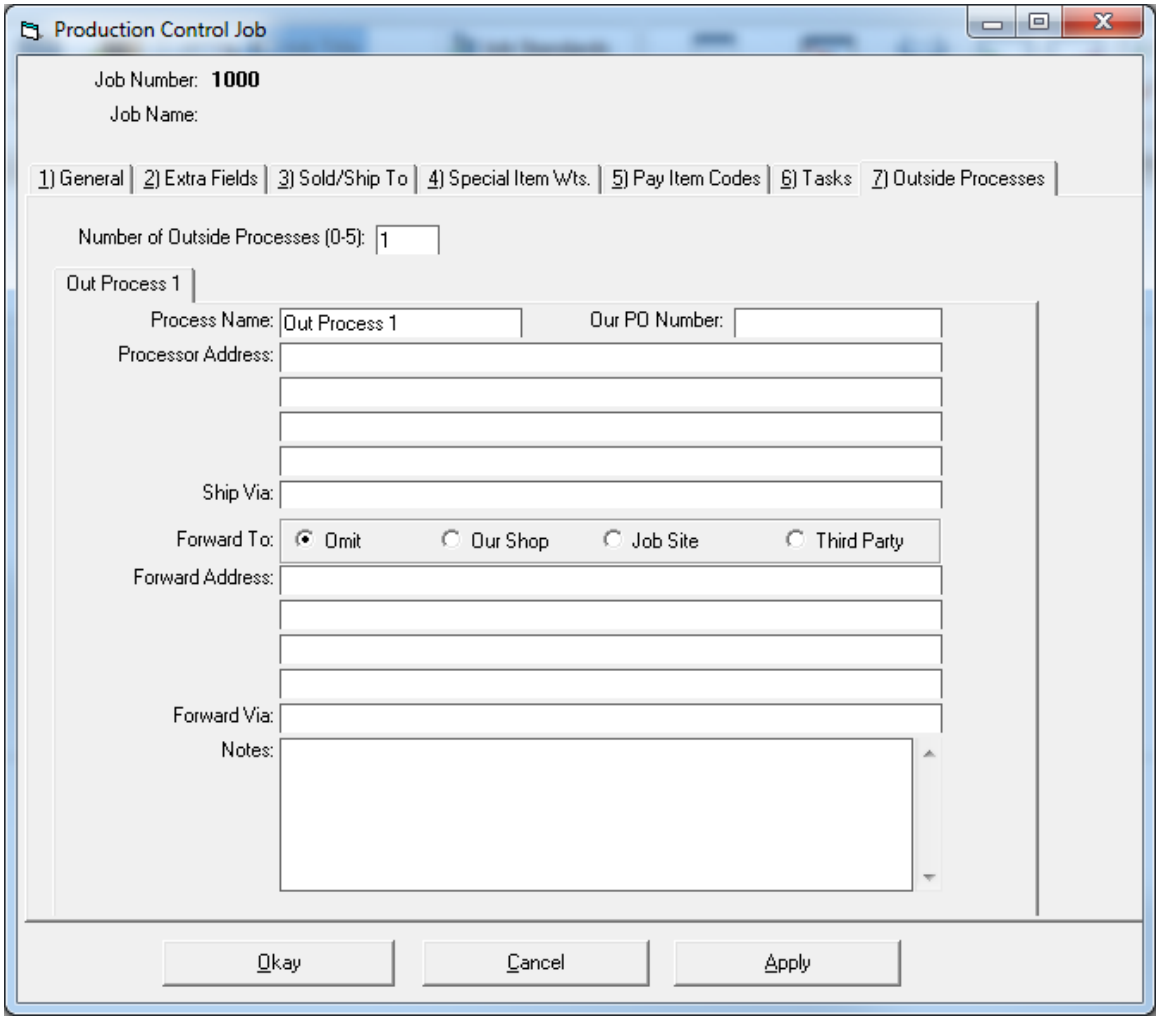
The program requires that all materials for the shop bill of material be included in the materials database with the exception of bolts and special items (SI, SA, and SL shapes). This tab lets you denote whether bolts and special items will require weights. In either case, weight units for these special items can be entered as they are being entered into the shop bill of material. During SBOM entry, if a bolt or special item is entered, the materials database is checked. If the item is found in the materials database, that weight is used. If the item is not found in the materials database, you will be prompted to enter a weight unit, that weight unit entry is either optional or required depending upon your selections on this tab.

Tasks

This tab also allows you to select which production tasks (if any) you wish to track for this job. The **Use Task By** option denotes if you can make a 3-character “Task By” entry with each production milestone entry.

Outside Processes

Outside processes are used if shipping tickets are required for materials that are not shipped directly to the jobsite. Most commonly this would be something like galvanizing. You can denote whether the material should be returned to your shop, sent to the jobsite or shipped to a third party. Outside processing shipping tickets are created in the shipping module.



Shop Bill of Material Entry

The shop bill of material list is broken down by drawing numbers. To enter or edit bill of material data, you first enter or select the drawing number that includes the bill of material items.

The drawing number can be up to 8 characters in length. The drawing can include alpha, numeric and most punctuation characters. Disallowed characters include the dash and the comma.

The Bill of Material Editor window consists of two tabs; Title and SBOM. The Title tab is used to enter the drawing number, revision, and date along with sequence heading information if applicable. The SBOM tab is used to enter/edit the shop bill of material.

Drawing Title

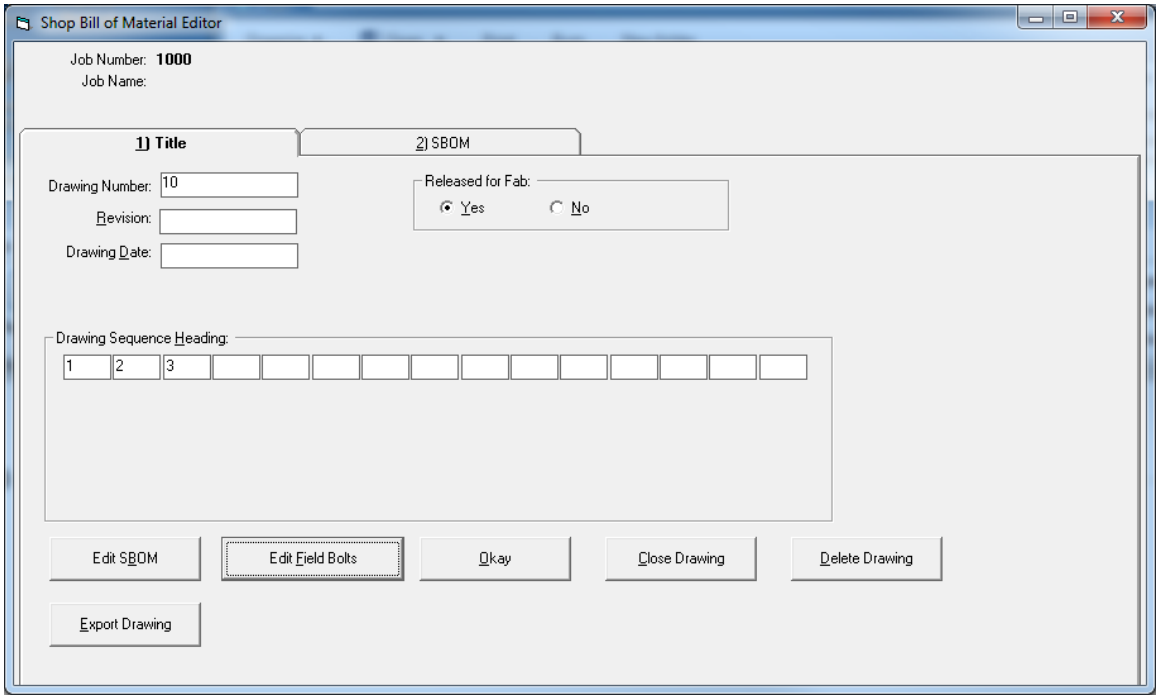
Drawing title entries include:

Revision – 2 characters.

Drawing Date – 8 characters.

Released for Fab – (Yes/No) Allows you to place an entire drawing 'on hold'. On hold drawings will not be included in shop cutting lists.

Sequence Heading – (if applicable) Up to 45 sequences are available for each drawing. If the drawing does not contain SBOM or Field Bolt data, the Sequence Heading can be revised. Sequences can be added to the heading at any time including after data has been added to the drawing.



You can add or edit SBOM and Field Bolt data through this screen.

The **Export Drawing** button will create a CSV file in the ExportedDrawings subfolder in the job folder. The filename will be <job number>_<drawing number>.CSV. The format used will be as specified in the Maintenance | Drawing Export menu option.

SBOM entry

Each drawing includes a material list. The material list consists of one or more shipping assemblies which include a shipping piece item and optional detail piece items. The order of input an assembly is first the shipping piece line entry followed by the detail pieces that are attached to the shipping piece.

The first material list item on a drawing is always a shipping piece. After the first item is entered, each additional line item is considered to be a detail piece (attached to the most recent shipping piece) unless you tell the system otherwise. To end input for the shipping piece and start a new shipping piece, you can enter “NS” in the quantity field or click the “Start New Ship Piece” button.

You can also denote a line item as a secondary ship piece. A secondary ship piece is used when 2 or more shipping pieces have different shipping marks but have identical attached detail pieces. Detailers often combine multiple shipping pieces in one picture when they have right and left hand conditions or opposite hand conditions. To denote an item as a secondary ship piece, the previous entry must have been a main ship piece or a secondary ship piece, you can then enter ‘S” in the quantity field or click the ‘Secondary Ship Piece” button.

The Shop Bill of Material Editor has three modes; Append, Edit, and Browse.

The append mode is used to add items to the end of the drawing’s material list. When you create a new drawing, you are placed in the append mode. You remain in the append mode until you close the drawing or switch to the browse mode. While in the append mode, you can add items to the end of the drawing’s material list or edit the current item. To review the material list or edit a previously entered line item, you must switch to the browse/edit mode.

The browse mode allows you to scroll through the drawing’s material list, edit individual items, delete items, add detail pieces or secondary ship pieces, etc. Whenever you recall an existing drawing, you are place in the browse mode. To edit a line item, highlight the item the click the “Edit Item” button. When inserting detail pieces, the detail piece will to inserted into the spot following the highlighted item. Deleting a shipping piece will also delete all attached detail pieces. The button “Add Ship Piece to Drawing” will place you in the append mode where you can begin adding to the end of the drawing’s material list.

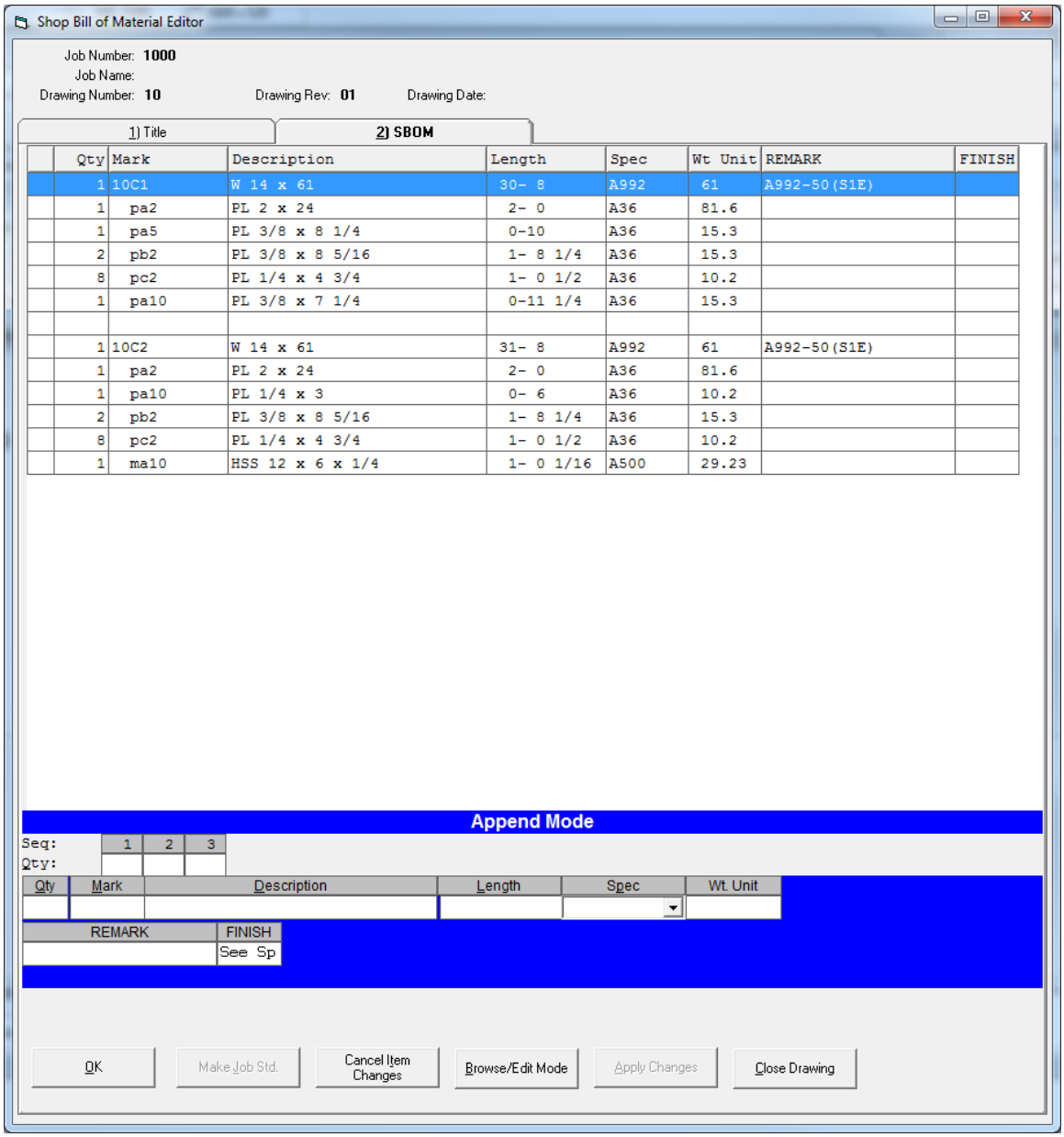
Bill of material item entry consists of the following:

Quantity

If the line item is a shipping piece and sequences are used, the sequence heading will be displayed allowing you to enter the ship quantities for each sequence. The total shipping quantity will be totaled and the total displayed in the Qty field. For shipping pieces, the quantity cannot be edited to less than the quantity that has be completed through a production task or shipped.

For detail item quantities, the quantity must be a multiple of the ship quantity. For example, if the ship quantity is 3, all detail items attached to that piece must be a multiple of 3 (such as 3, 6, 9, 12, etc.).

All numeric entries must be positive. Non-numeric control codes recognized are; NS – Next Ship piece, S – Secondary ship piece, and ND – Next Drawing.



Qty	Mark	Description	Length	Spec	Wt Unit	REMARK	FINISH
1	10C1	W 14 x 61	30- 8	A992	61	A992-50(S1E)	
1	pa2	PL 2 x 24	2- 0	A36	81.6		
1	pa5	PL 3/8 x 8 1/4	0-10	A36	15.3		
2	pb2	PL 3/8 x 8 5/16	1- 8 1/4	A36	15.3		
8	pc2	PL 1/4 x 4 3/4	1- 0 1/2	A36	10.2		
1	pa10	PL 3/8 x 7 1/4	0-11 1/4	A36	15.3		
1	10C2	W 14 x 61	31- 8	A992	61	A992-50(S1E)	
1	pa2	PL 2 x 24	2- 0	A36	81.6		
1	pa10	PL 1/4 x 3	0- 6	A36	10.2		
2	pb2	PL 3/8 x 8 5/16	1- 8 1/4	A36	15.3		
8	pc2	PL 1/4 x 4 3/4	1- 0 1/2	A36	10.2		
1	ma10	HSS 12 x 6 x 1/4	1- 0 1/16	A500	29.23		

Piece Mark

For shipping pieces the piece mark entry is required. The piece mark can be up to 12 characters (alpha/numeric) in length Duplicate shipping piece marks are not permitted within a job. Alpha characters used in shipping marks are converted to upper case.

For detail pieces the piece mark entry is optional and can be up to 10 characters in length. Detail piece marks can be duplicated within drawings and within a job. The program does not do any checking to assure that descriptions, etc. are the same for duplicated detail piece marks. However, when grouping and combining materials for the shop cutting list, quantities will be combined for duplicate piece marks only if the descriptions are identical. Detail piece marks are case sensitive (a1 and A1 are not considered as the same).

Description

The bill of material description is entered into this field. If the item has a width (such as plates), the width would be included in the description field. In most cases, the item length is not entered into the description field but entered into the separate length field. An exception is that bolt lengths are entered into the description field.

The description entry is made by entering the shape code followed by [ENTER] (or the space bar) then the description dimensions. For most entries, if the description contains fractions, the fraction entry is made using re-defined fractions keys. This allows you to make fraction entries using one keystroke. The re-defined fraction keys are:

W=1/16, E=1/8, R=3/16, T=1/4, Y= 5/16,
U=3/8, I=7/16, O=1/2, S=9/16, D=5/8,
F=11/16, G=3/4, H=13/16, J=7/8, K=15/16

The shape codes and corresponding description formats are:

Note, these examples are based on US standard description entry. Metric description entries are similar except fractions are not applicable. Depending upon whether you are updating a US standard or metric item, the appropriate Description Type at the upper right of the window must be checked.

Unless noted, the following shapes can be used for shipping pieces and detail pieces alike. Some shapes are applicable for shipping pieces only or detail pieces only and are noted if the limitation applies.

W, WT, C, MC, S, ST, M, MT, & HP - (Structural shapes as per AISC designations). Description is entered by typing in the shape followed by [ENTER] (or space) then the depth, then X, then the weight per foot followed by [ENTER]. Spaces are automatically inserted before and after the ‘X’. Use the decimal point where required. Optionally, the '+' key can be used rather than 'X'.

Example: W 10 x 22

L – (Angles). Input is in inches and inch fractions. Description is entered by typing in the shape followed by [ENTER] (or space) then leg 1, then X, then leg 2, then X, then the thickness followed by [ENTER]. Fractions must be entered using the redefined single key. Spaces are inserted by the computer where required for clarity.

Example: L 3 1/2 x 3 1/2 x 5/16

PL - (Plate). Input is in inches and inch fractions. Description is entered by typing in the shape followed by [ENTER] (or space) then the thickness, then X, then the width followed by [ENTER]. Maximum thickness is 9 15/16". Fractions must be entered using the redefined single key. Spaces are inserted by the computer where required for clarity.

Example: PL 1/2 x 15 ¾

PLD - (Plate – decimal thickness). Input is in decimal inches for the thickness and inches and inch fractions for the width. Description is entered by typing in the shape followed by [ENTER] (or space) then the thickness in decimal inches, then X, then the width in inches and inch factions followed by [ENTER]. Thickness can be entered up to 3 decimal places. Fractions for the width must be entered using the redefined single key. Spaces are inserted by the computer where required for clarity. Decimal thickness plate must be added to the materials database. The program does not convert between fractional thicknesses and decimal thicknesses (PL ½ and PL .500 are not the same as far as the program is concerned).

Example: PL .500 x 15 ¾

PLA - (Plate - area). Input is in inches and inch fractions for the thickness and decimal square feet for the area. Description is entered by typing in the shape followed by [ENTER] (or space) then the thickness, then X, then the area in decimal feet followed by [ENTER]. Weight is calculated using the PL thickness entry in the materials database. Fractions must be entered using the redefined single key. Spaces are inserted by the computer where required for clarity.
Example: PL 1/2 x 34.45

PLDA - (Plate – decimal thickness x area). Similar to PLA except thickness is entered in decimal inches.
Example: PL .500 x 34.45

BR - (Flat bar). Input is in inches and inch fractions. Description is entered by typing in the shape followed by [ENTER] (or space) then the thickness, then X, then the width followed by [ENTER]. The maximum width/thickness is 99 15/16".
Example: BR 1/2 x 4

SQ - (Square bar). Entry is in inches and inch fractions. The description is entered by typing in the shape followed by [ENTER] (or space) then the bar dimension followed by [ENTER]. Maximum dimension is 9 15/16". Fractions must be entered using the redefined single key.
Example: SQ 1/2

RD - (Round rod). Entry is in inches and inch fractions. The description is entered by typing in the shape followed by [ENTER] (or space) then the diameter followed by [ENTER]. Maximum diameter is 9 15/16". Fractions must be entered using the redefined single key.
Example: RD 3/4

RB - (Rebar). The description is entered by typing in the shape followed by [ENTER] (or space) then the bar size followed by [ENTER]. Allowed bar sizes are 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, and 18.
Example: RB 4

GA - (Gauge material). The description is entered by typing in the shape followed by [ENTER] (or space) then the gauge thickness, then X, then the width followed by [ENTER].
Example: GA 11 x 24

FP - (Floor Plate). Entry is similar to plate (PL).
Example: FP 3/8

TS - (Square and rectangular tube). Entry is similar to Angle. The wall thickness must always be the last entry. If the wall thickness entry is 7 - 28, then a gauge wall thickness is assumed.
Example: TS 4 x 4 x 1/4

TO - (Round tube). Entry format is shape followed by [ENTER] (or space) then the outside diameter in inches and inch fractions), X, then the wall thickness. The wall thickness must always be the last entry. If the wall thickness entry is 7 - 28, then a gauge wall thickness is assumed.
Example TO 4 x 1/2

PI - (Pipe). Schedule pipe can be entered using this Shape code. The entry format is Shape, [ENTER] (or space), diameter, <X>, then the schedule followed by [ENTER].
Example: PI 4 x 40

PS, PE, and PD - (Pipe). Standard (PS), Extra strong (PE), and Double extra strong (PD) pipe can be entered using these Shape codes. The entry format is Shape, [ENTER], then the diameter followed by [ENTER].

Example: PS 4, PE4, PD4

CB - (Bar Channel). Entry is similar to Angle.
Example: CB 1 1/2 x 1/2 x 1/8

TB - (Bar Tee). Entry is similar to Angle.
Example: TB 1 1/2 x 1 1/2 x 3/16

BTH - (High strength Bolt). Enter the shape then [ENTER] (or space), diameter, then X, then the length followed by [ENTER]. All entries are in inches and inch fractions.
Example: BTH 3/4 x 2 1/2

BTM - (Machine Bolt). Enter the shape then [ENTER] (or space), diameter, then X, then the length followed by [ENTER]. All entries are in inches and inch fractions.
Example: BTM 3/4 x 2 1/2

BTN - (Nut). Enter the shape then [ENTER] (or space), diameter in inches and inch fractions followed by [ENTER].
Example: BTN 3/4

WHF - (Flat Washer). Enter the shape then [ENTER] (or space), diameter in inches and inch fractions followed by [ENTER].
Example: WHF 3/4

WHB - (Bevel Washer). Enter the shape then [ENTER] (or space), diameter in inches and inch fractions followed by [ENTER].
Example: WHB 3/4

WHL - (Load indicator Washer). Enter the shape then [ENTER] (or space), diameter in inches and inch fractions followed by [ENTER].
Example WHL 3/4

BTE - (Expansion Bolt). Enter the shape then [ENTER] (or space), diameter, then X, then the length followed by [ENTER]. All entries are in inches and inch fractions.
Example: BTE 3/4 x 4

BTW - (Wedge insert). Enter the shape then [ENTER] (or space), diameter in inches and inch fractions followed by [ENTER].
Example: BTW 3/4

AB - (Anchor Bolt). Enter the shape then [ENTER] (or space), diameter, then X, then the length followed by [ENTER]. All entries are in inches and inch fractions.
Example: AB 3/4 x 12

SC -(Shear Connector). Enter the shape then [ENTER] (or space), diameter, then X, then the length followed by [ENTER]. All entries are in inches and inch fractions.
Example: SC 1/2 x 4

GR - (Bar Grating). Enter the shape then [ENTER] (or space) then the bearing bar depth, then X, then the bearing bar thickness, then X, then the thickness followed by [ENTER]. All entries are in inches and inch fractions.
Example: GR 1 1/4 x 3/16 x 24

REM - (Regular Expanded Metal). Enter the shape then [ENTER] (or space) then the diamond SWD, then X, then the gauge thickness, then X, then the width followed by [ENTER].
Example: REM 3/4 x 16 x 24

FEM - (Flattened Expanded Metal). Enter the shape then [ENTER] (or space) then the diamond SWD, then X, then the gauge thickness, then X, then the width followed by [ENTER].
Example: FEM 3/4 x 16 x 24

SI - (Special item with weight calculated per each or item). Used for entries such as castings where the weight is calculated by the item. SI can also be used for items that do not have a weight. At Shape type SI [ENTER], then a 24 character description followed by [ENTER]. Redefined fraction keys are not available for the description part of this entry.
Example: SI #101 CASTING

SA - (Special item with weight calculated by Area). Used for items such as grating where weight is calculated by area. At Shape type SA [ENTER], then a 15 character description followed by [ENTER] then the width. Redefined fraction keys are not available for the description part of this entry but must be used in the width entry section if applicable.
Example: SA 1/8" PERF. PL x 24

SL - (Special item with weight calculated by Length). Used for items such as extrusions or aluminum sections. At Shape type SL [ENTER], then a 24 character description followed by [ENTER]. Redefined fraction keys are not available for the description part of this entry.
Example: SL #101 EXTRUSION

PN shape (Part Number) … The PN shape is similar to the SI shape but gives the ability to add a longer expanded description. The intent is to allow a part number of up to 24 characters plus a part description of virtually unlimited character length. For example, you might have a fictional Wagner part and description as follows:

WAGWB1000 *(the part number)*
WAGNER WALL RAIL BRACKET FOR 1 1/2" O.D. RAIL AND 2" WALL CLEARANCE *(the description which could contain several lines)*

The PN shape with its expanded description must be entered into the Materials Database. Use the menu option Maintenance | Materials Database | Edit Materials Database.

The PN shape can be used in the Production Control SBOM, Purchase Order and Inventory Control programs.

D – (Ditto the previous description). Dittos the previous line item description only. You must enter the length, remarks, etc. Applicable to detail pieces only.

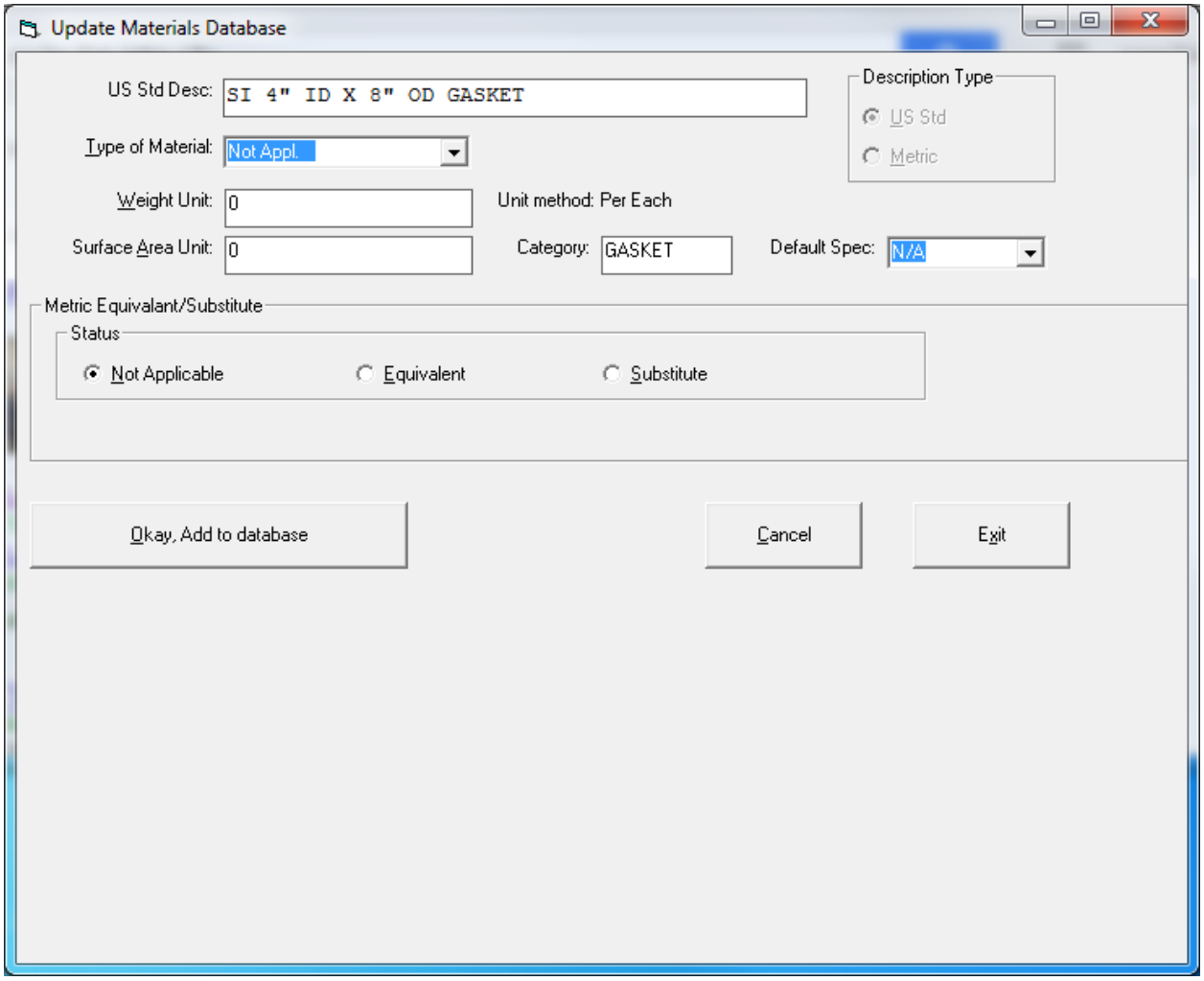
SD – (Shipping Description). Used for a shipping description (such as FRAME, BEAM, COLUMN, etc.) that is used to describe the item but is not actual material. Shipping Descriptions are listed on the shipping ticket but are not included on shop cutting lists. The "SD" shape is applicable to shipping pieces only.

E – (Exists on current drawing). If the current detail piece (including identical piece mark) has been previously entered on the drawing, it is not necessary to re-enter the description, length, etc. The "E" shape will be retained for screen displays but the description, etc will be listed on printed reports. The "E" shape is applicable to detail pieces only.

JS – (Job Standard). Pulls the description from a matching piece mark in the Job Standards table. Each job standard table is specific to that job only. This shape is applicable to detail pieces only.

SS – (Shop Standard). Pulls the description from a matching piece mark in the Shop Standards table. Shop standards are available for all jobs. This shape is applicable to detail pieces only.

SA, SL and PN description entries require exact syntax to match the description entry in the materials database. To aid in these description entries, you can assign a 'Category' to each SI SL or PN entry when adding to the material database. The purpose is to easily duplicate syntax when entering those shapes into the SBOM. To use the category feature, you must first enter the item into the Materials Database. The initial entry is similar to any addition to the Material Database except you will be prompted for an optional Category and Default Spec. The Default Spec entry will allow you to assign a different default spec than the default spec assigned to the shape.



When entering into the Materials Database, you can create your own categories on the fly.

To use this feature in SBOM, Purchase Order or Inventory Master File entry, rather than typing in the shape and description, type in the category. A list of all SI, SL or PN items that have been added to the Master Database under that category will be listed allowing you to pick the desired item.

To see a list of all categories you have used, type in CTG rather than a category name then you can pick the category to display.

Length

Length is entered in feet, inches, and inch fractions for US standard jobs and millimeters for metric jobs. Maximum length is 999'11 15/16 for US standard or 99999 mm for metric.

For US standard units the hyphen [-], period [.], or single quote ['] can be used to separate feet and inches. Fractions must be entered using the redefined single key. For metric units, decimal entries are not permitted.

Spec

The spec field will be automatically filled in with the default specification based on the shape. If this is correct, you can tab or enter to the next field. A different spec can be selected from the specifications table.

Wt. Unit

For most items, the wt. unit comes from the materials database through an internal lookup operation. If the item is a bolt or special item and not found in the materials database, you will be prompted to enter a weight unit. Depending on your selections on the Job Titles screen, the weight unit may or may not be required.

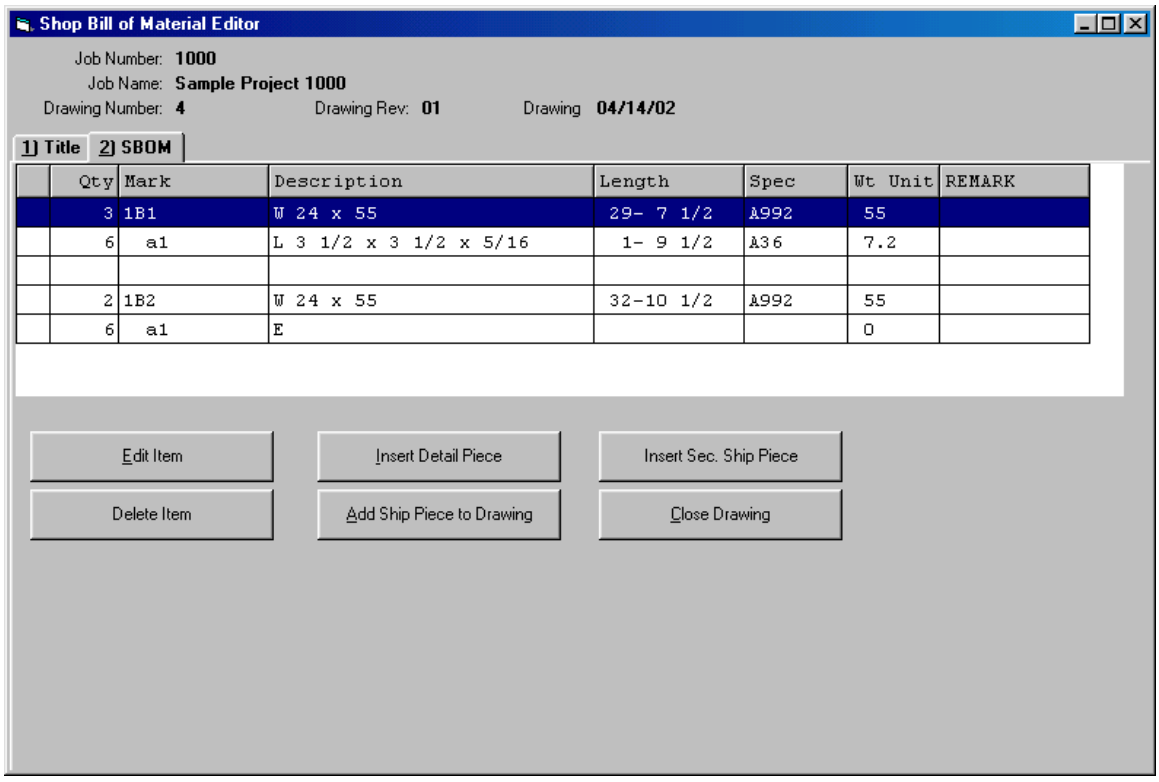
Other entry fields

You may be prompted for other entries such as Remark, etc. depending on job setup. In most cases, these entries are optional and may be skipped if not applicable.

Invalid entries

At the end of each line of data entry, you will be prompted if there were any errors. The error message will be descriptive of the error condition. If you choose to not correct the error; the item will be flagged as invalid and an asterisk will be placed in the line number column. Invalid items are not included in weights, summaries, nested lists, etc. A count of invalid items is shown at the top of the Bill of Material Editor window.

The OK button will update the material list with the data just entered or changed. The Cancel button will undo the last line of data entry or change. If you are in Append Mode, the Browse List button will switch control into display/edit mode. The last line of data entry in not saved if the Browse List button is selected. The Exit button will save all data and close the project.



Shop Cutting List

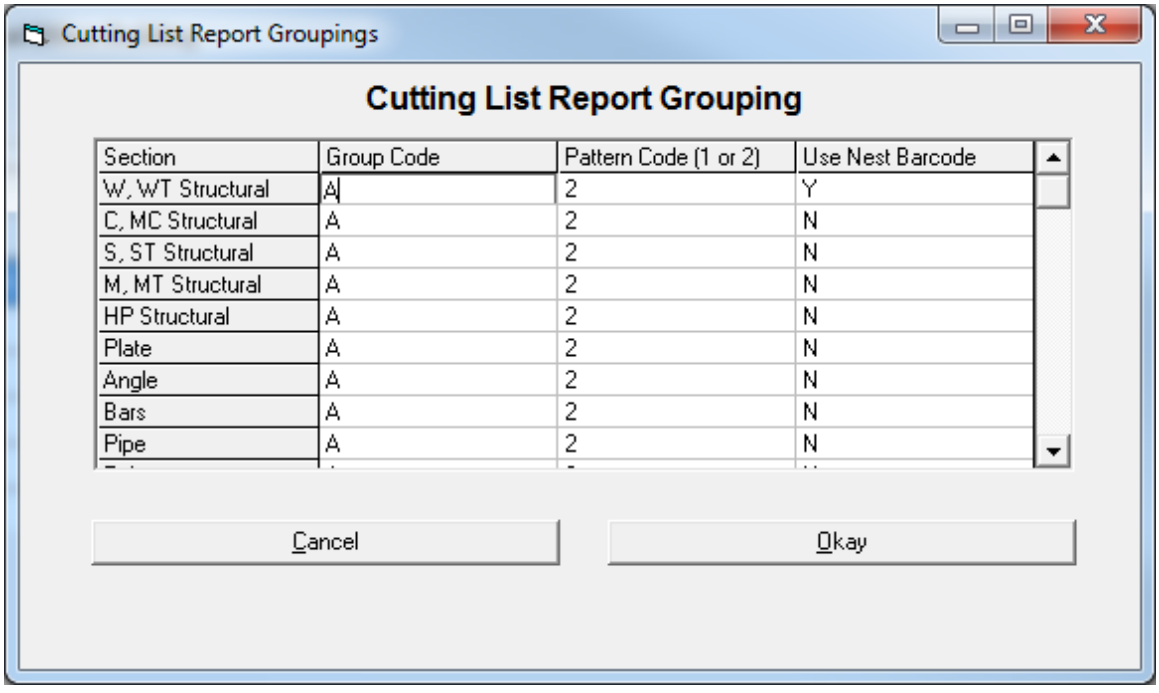
The shop cutting list options are available through the menu selection “Tools | Shop Cutting List”.

The **“Shop Cutting List | Tools | Edit Report Groupings”** menu option lets you set some parameters for your cutting list reports.

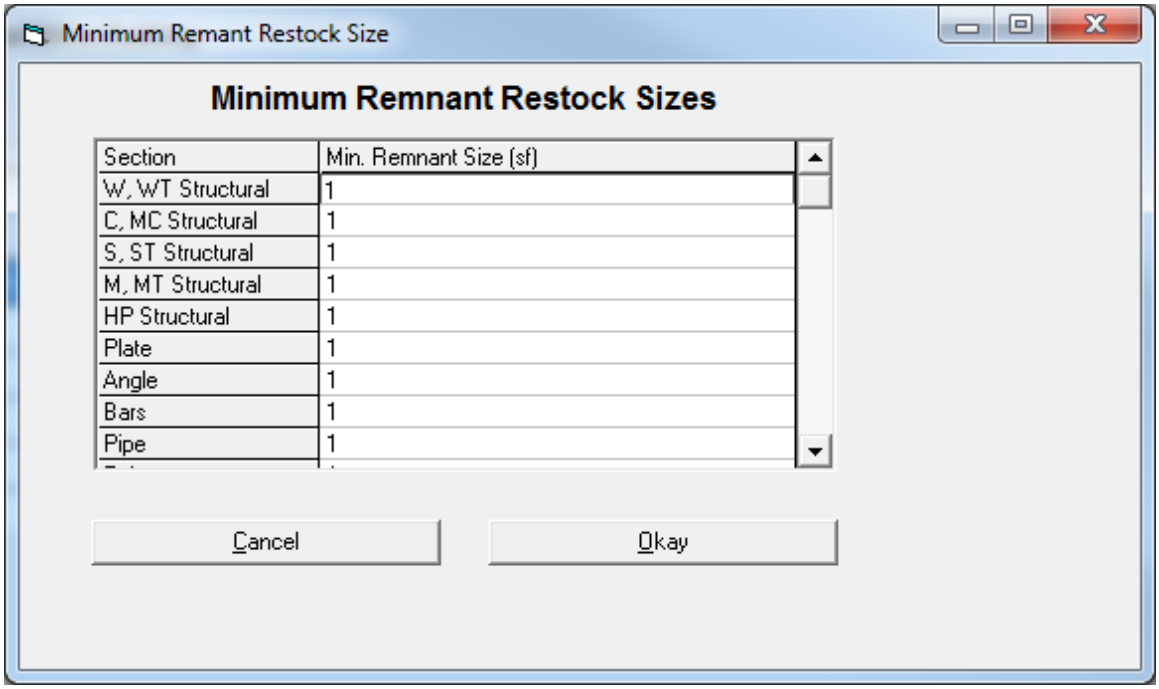
Group Code determines how the various shapes are grouped on the report pages. Generally you would want to group by the machine that performs the cutting. That is you would not want the items going to the structural saw on the same page as items going to the angle shear so the structural items would have a different Group Code than the angle items.

Pattern Code determines the number of ‘cut from’ pieces listed for a nesting pattern. An entry of 1 will print a nesting pattern for each ‘cut from’ piece. An entry of 2 will combine pattern if you have several patterns that are the same. For instance if you are cutting 5 39-0 pieces from 40’0 stock, Pattern Code 1 will list the nesting pattern 5 times. Pattern Code 2 will list one cutting pattern.

Use Nest Barcode - If using the Romac Inventory Control module, an entry of ‘Y’ will print a barcode and Nesting Pattern ID for each nesting pattern. You can use the Nesting Pattern ID to relieve inventory and return any remnant when the item has been cut. You can key in the Nesting Pattern ID or use a barcode scanner.



The **“Edit Remnant Restock Sizes”** menu allows you to enter a minimum restock length if using the Romac Inventory Control Module and the Nest Barcode option. The entry is in decimal feet or decimal square feet for plate and sheet. The restock length can be entered for individual sections in the Inventory Control module which would override this entry..



The **"Convert Bar <> Plate"** allows you to convert items in the SBOM from bar to plate or from plate to bar. The comversion must be done before the plate and bar items are place on a shop cutting list.

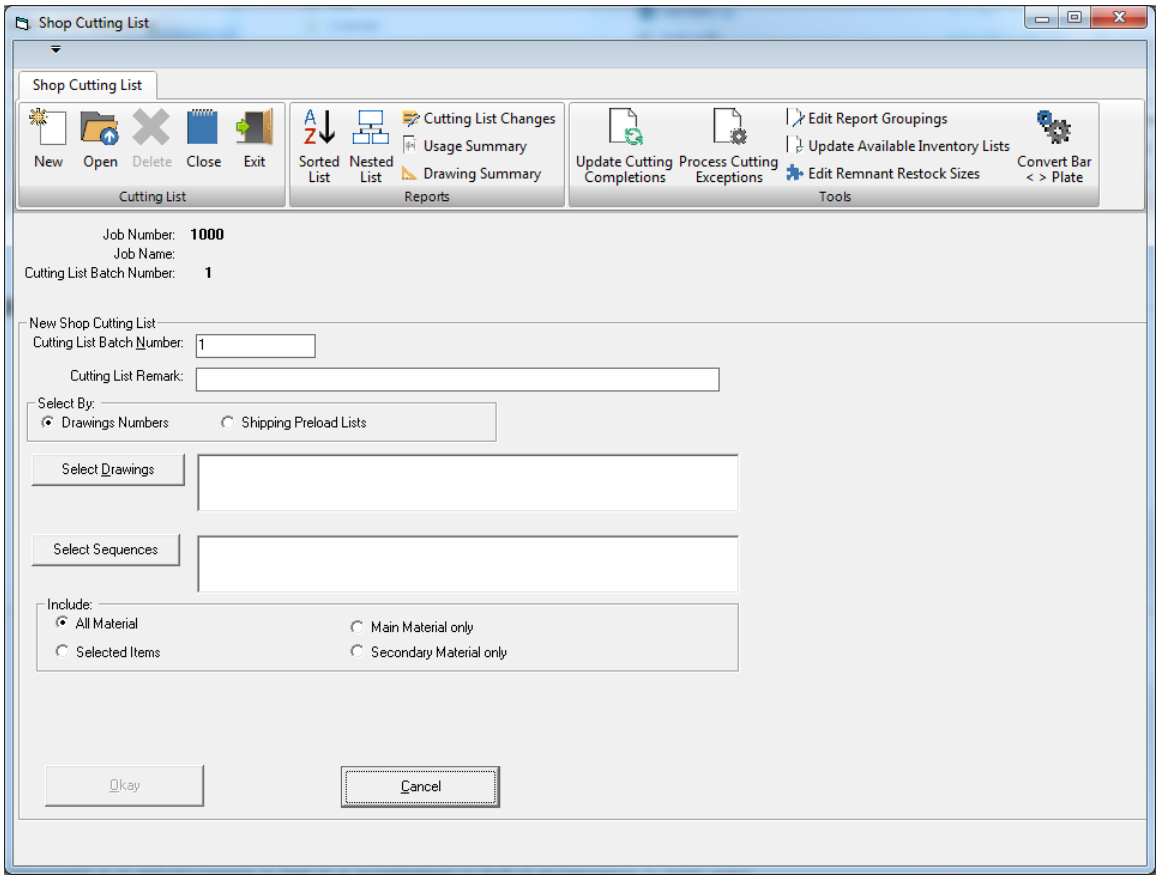
Creating a Cutting Batch

A unique batch number supplied by the operator identifies each cutting list. The batch number can be numeric only in the range of 1 through 9999.

Several criterions are available for selection of materials to include on a cutting list. The first selection criterion allows you to select based on drawing numbers or shipping preload lists. If selecting by shipping preloads, only the shipping pieces and shipping piece quantities (along with attached detail pieces) listed on the preload list(s) will be included in the cutting list.

The drawing numbers list (or preload lists) can be manually entered or selected from the browse list. If you want to include all drawings in the cutting list, you can enter "ALL" in the drawing list field.

If selecting by drawing numbers and the job is broken down into shipping sequences, you must also select which sequences to include. Selection of sequences is not applicable at this point if you are selecting by preload lists.



Additional selection criterion allows you to select the type of material to include. The options are:

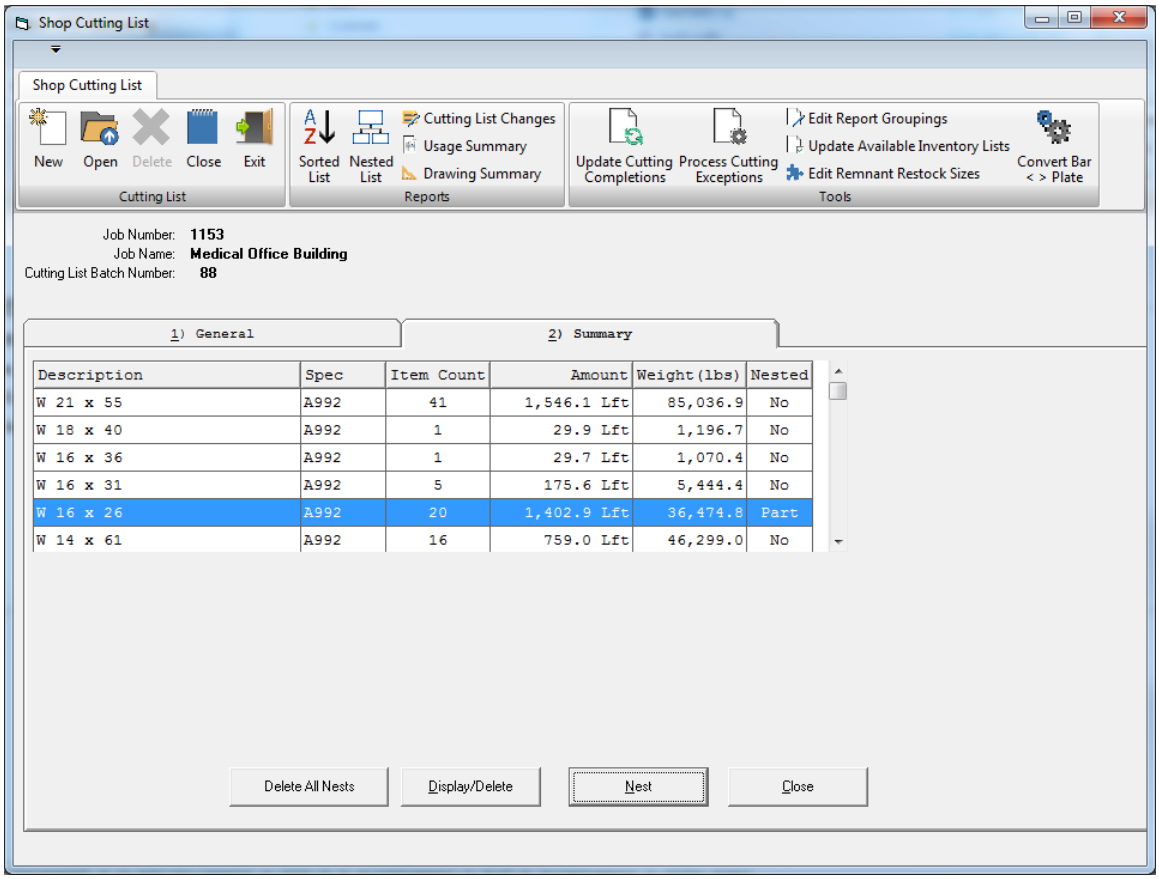
Main Material only – Main material is defined by the shape. Main material shapes are the structural section (W, WT, M, MT, S, ST, C, and MC), rectangular and round tube, and all pipe.

Secondary Material only – Secondary material includes all materials not defined as main material.

Selected Items – Material can be selected for inclusion based on shape, description and/or specification. Use the "*" (asterisk character) in the shape or specification field to select all shapes or specifications. Selected items entry can be a single material description (such as TS 4 x 4 x ¼, A500), or all items with a certain material specification, or limited to a single shape, etc.

If cut tracking is turned on for the job (see the Job Title section), only material items meeting the selection criterion and not included on a previous cutting list will be included in this cutting list. If cut tracking is not turned on, all material items meeting the selection criterion will be included, if this is the case it is up to the operator to keep track of what has and hasn't been included on previous cut lists.

Nesting



In the following instructions, 'section' will refer to all quantities and lengths for a given steel section such as W 10x22, L 3x3x1/4, ½" thick plate, etc.

The 'Delete All Nests' will delete all nest patterns and return allocated material back to inventory if the nesting was done from inventory. A cutting batch cannot be deleted if the batch contains any nested items.

The 'Display/Delete' button will display the materials for the selected section. This option will also allow you to delete the section from the cutting batch. If there is any nesting for section, the section cannot be deleted from the batch. Nesting for a section can be deleted through the 'Nest' screens.

The 'Nest' button will allow you to nest the selected section.

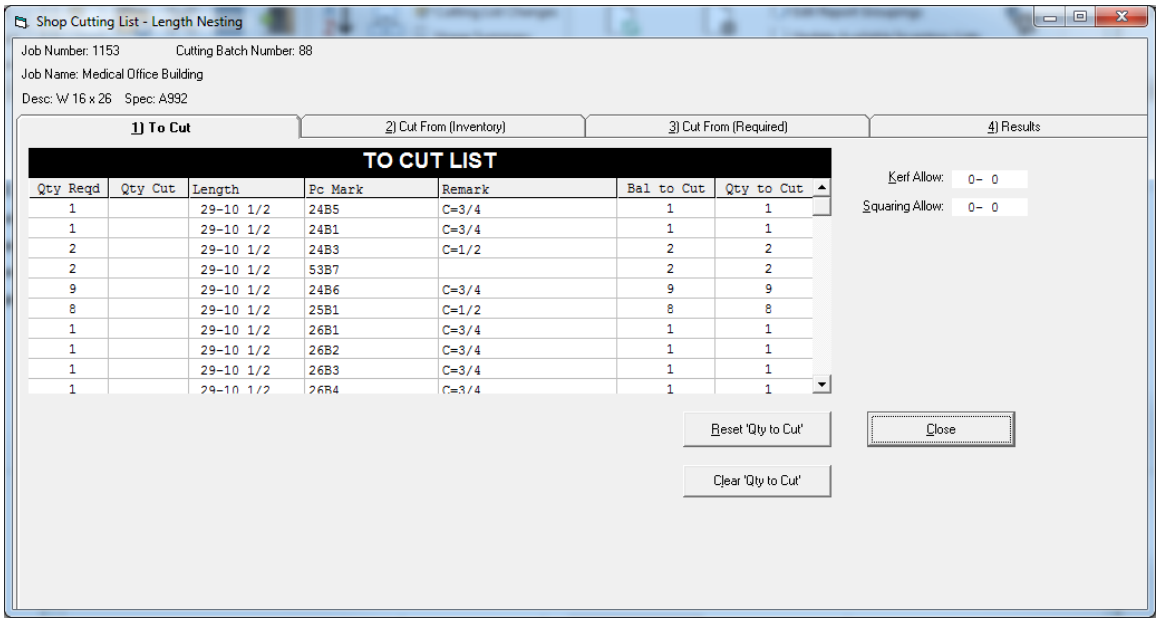
Length Nesting

If the Romac Series 8 Inventory Control program is installed onto the system and the Production Control installation on the computer you are working from has the 'Interface with Inventory Control' option checked, the length nesting routine will interface with your inventory data. To set the 'Interface with Inventory Control' option, see the menu chain Maintain | Set Configuration | Inventory Interface.

When the ‘Nest’ option is chosen for a length item, the Length Nesting screen will show 4 tabs. The tabs are:

1) To Cut – A listing of the ‘To Cut’ items for the section.
2) Cut From (Inventory) – A listing of available inventory to cut from.
3) Cut From (Required) – Allows you to enter available lengths to cut from.
4) Results – Display of the completed nesting(s).

The To Cut tab lists the ‘To Cut’ items from the cutting list. The listing has two quantity columns, the first column lists the required quantity, the second column (Qty Cut) lists the quantity that has been nested. The “Qty Cut” column is updated through the nesting routine. The ‘Qty to Cut’ can be edited not to exceed the ‘Bal to Cut’. You can use this feature to control how items are nested (to some extent).



Kerf Allowance is the amount of material taken out for each cut.

Squaring Allowance is an amount taken from each end of the ‘cut from’ piece for squaring or other purposes. If both a kerf and squaring allowance is specified, the nesting routine adds the kerf amount to the squaring allowance for the required cuts at each end of the piece.

Some cutting equipment requires a grip or clamp allowance at one end of the piece. If you machine requires a grip allowance at one end, you will need to enter ½ of the grip allowance as the squaring allowance. For instance, if your machine requires a 6” grip allowance you would enter a squaring allowance of 3”. In these cases, remnant (or drop) lengths will be understated by the amount of the squaring allowance.

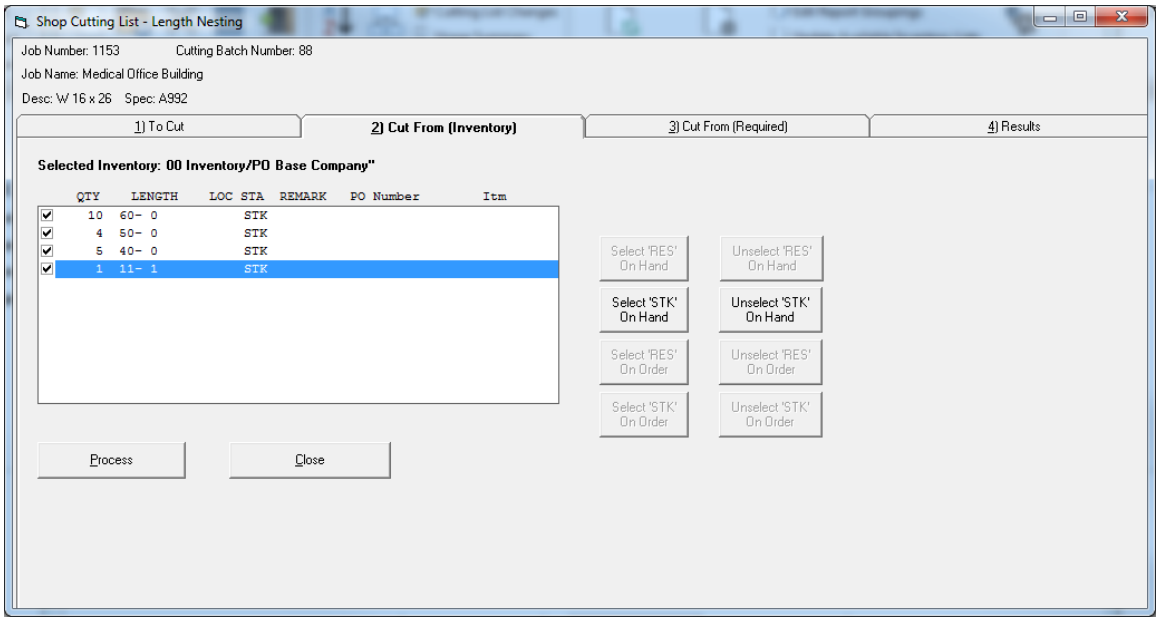
The Kerf Allowance and Squaring Allowance fields can be edited if nested results have not been saved for the section. If the Inventory program is installed and the section is in the inventory master listing, kerf and squaring allowances will be saved and automatically retrieved the next time that the section is selected for nesting.

The section can be nested from on hand or on order inventory (if available), manually entered sizes, or a combination of sources.

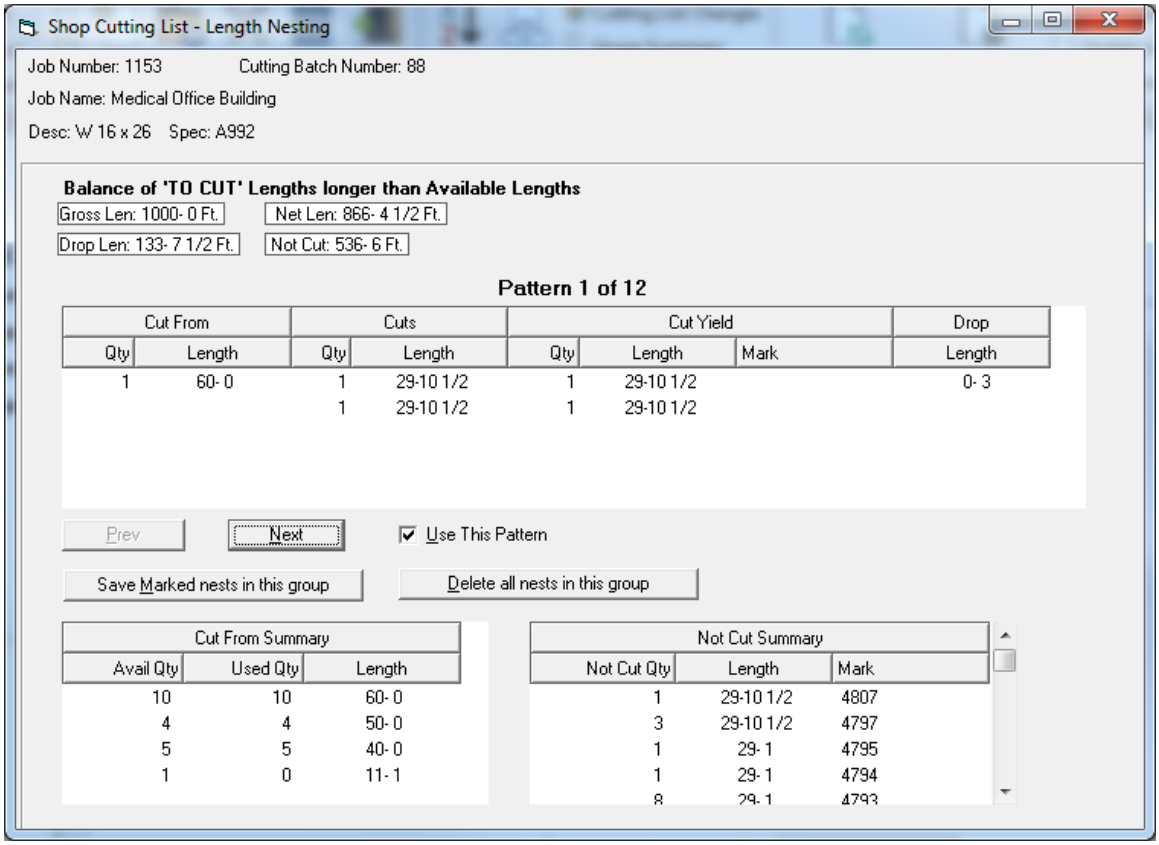
If inventory is available, it will be listed on the Cut From (Inventory) tab. Listed material will include on hand material reserved for the job, on hand stock material, on order material ordered for the job, and on order stock material. Allocated items or items reserved for other jobs will not be included in the available listing.

This screen allows you to select which cut from items you want to include in the nesting process. Individual items can be selected or cut from items can be selected or unselected by category using the buttons.

The Process button will consider only the checked inventory items for nesting. Note, the Process button on the Cut From (Inventory) tab does not use any items from the Cut From (Required) list for nesting.



At completion of the nesting process, the current nesting results will be displayed with the option to accept or reject individual nesting patterns.

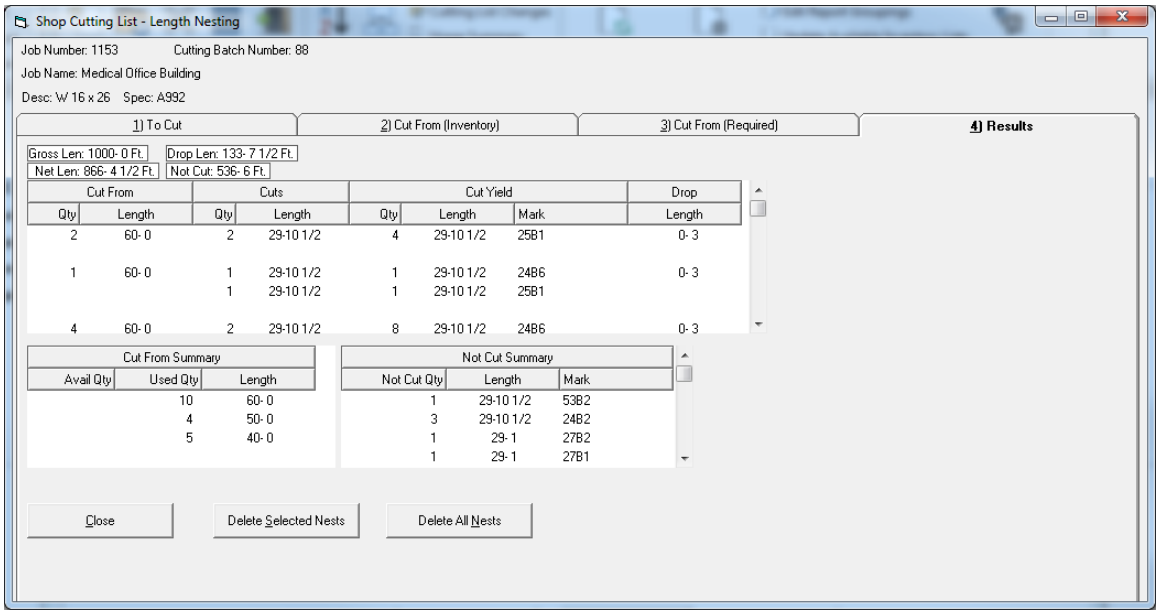


This display shows only the patterns from the current nesting. Previously saved patterns for this section are not shown on this screen. You can scan through the nesting patterns to mark and unmark the patterns you want to accept or reject. The 'Save Marked nest in this group' button will move all marked nests to the results tab and allocate the inventory items. The 'Delete all nests in this group' button abandons the current nest but does not affect saved nests.

The 'Cut From (Required)' tab allows you to enter quantites and lengths to nest from. This option is usually used to nest for purchasing. The Process button on this tab will nest from the manually entered cut from list only and will not consider any available inventory.

If the inventory system is used and the section is an inventory master item, the 'Save as Std. Lengths' button will save the current cut from list then automatically recall it whenever the section is nested in the future. Only the lengths are saved, not the quantities or remarks. When recalled, the quantity is set at 999 pieces for each length.

The Results tab displays a summary of all saved nests for the section. The 'Delete Selected Nests' button will step through the nest patterns and allow you to delete individual nest patterns. The 'Delete All Nests' button will delete all saved nests for the section. If inventory items have been allocated for the section (through the nesting routine), the allocated items will be returned to RES or STK status.



The Close button will exit the nesting routine for the selected section.

Plate Nesting

Plate nesting is similar to length nesting with a plot provided for each nesting pattern. You can choose to not print the plot for individual nest patterns.

Cutting Batch Reports

Sorted List and Nested List – Both reports will print the entire cutting list. The Nested List will print everything weather nested or not. Plots for plate nesting will be printed unless the plot is marked to not print on the nesting Results tab.

Cutting List Changes – Alerts you to any changes to the SBOM that affect this cutting list.

Usage Summary – Allows you to print a report of material usage for the cutting list. A CSV is also available.

Drawing Summary – Prints a list of all drawing considered for the cutting list. Also, include the parameters for the cutting list.

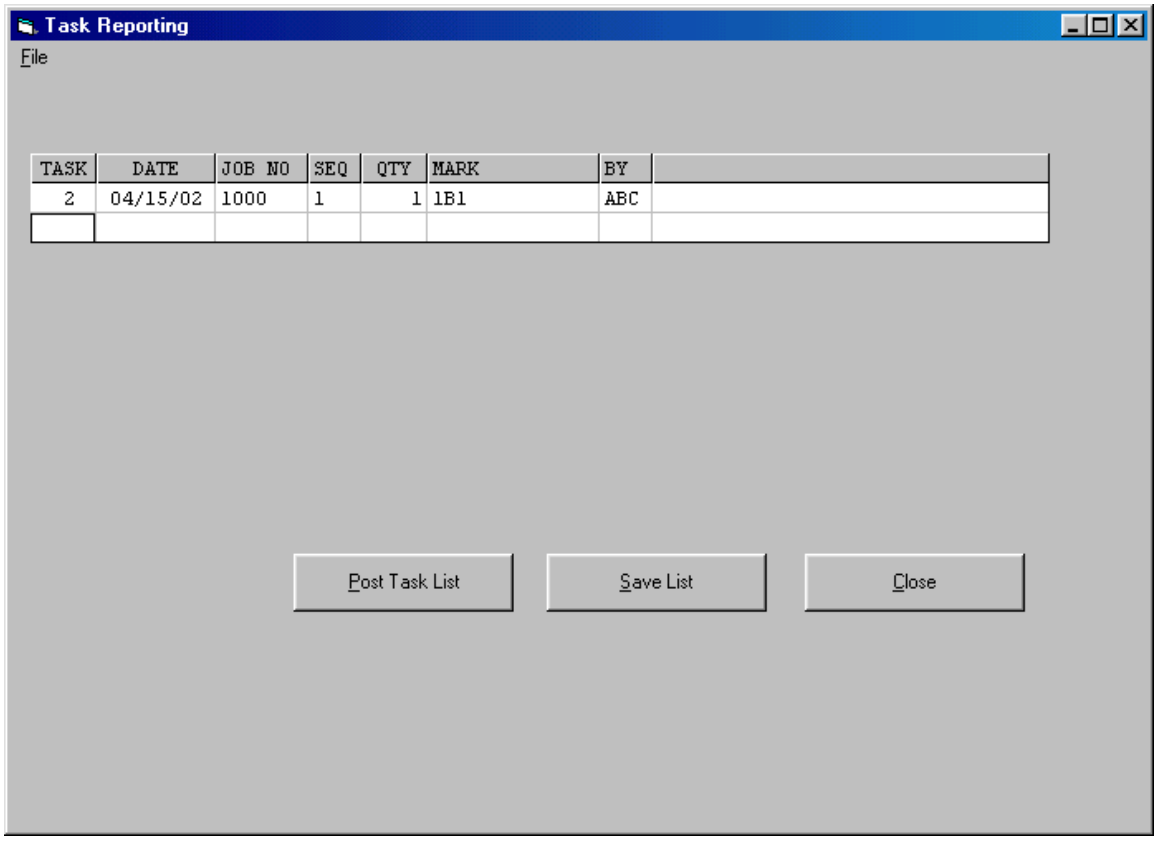
Task Reporting

Production milestone task tracking is optional in the Romac Series 8 Production Control program. If you choose, up to 6 production milestones can be tracked. Typical tasks might be Fit-up, Weld, Inspect, Clean, Paint, Complete. If you choose to track production tasks, you would need to record and enter for each shipping piece; task ID, job number, date, quantity and optionally the initials of the person completing the task.

To enter the task descriptions, use the menu selection “Maintain | Set Configuration | Miscellaneous”. These descriptions apply to all jobs on the system.

To select the individual tasks to track for an individual job, see the Job Title section. The exact tasks tracked can vary from job to job.

For data input of production task data, nine different lists are available. The purpose of the different lists is to allow more than one person to enter task data. When a user opens one of the lists, it is locked from access to other users.



Task data entries are generally self-explanatory and consist of:

Task – Valid task ID are 2-7. All tasks may not be valid depending on the job setup.
Date –
Job No. -
Seq – If the sequence entry is omitted for a job that uses sequences, the first available sequence number will be assigned during posting.
Qty –
Mark –
By –

To ditto the entry from the previous line, press [Enter]. To leave an entry blank, press [Space] then [Enter].

To remove a line item, change the quantity to 0. It will be removed at posting.

Two posting options are available, “Trial” checks the validity of the items without posting, “Final” post the items (if valid) and removes the posted items from the task list.

When making a final post, you have the option to add the posted items to the “Task Summary” file. This is an ASCII record of all posted task completions available for printing or use by other software applications.

Shipping

The shipping module will record items shipped to the jobsite or to an outside process. The ship status of a shipping assembly can be seen at the Home | View Ship Pc(s) menu selection or printed using the menu selection Home | Reports | Ship Piece Status.

A printed shipping ticket with piece descriptions and weights to be sent with the shipping load can be printed.

The company name and address listed on the printed shipping tickets will be the data entered at the “Company Name” tab using the Maintenance | Miscellaneous menu selection.

For job site shipping tickets, the Sold To and Ship To information will come from the Sold/Ship To tab at the Home | Edit | Job Title menu selection.

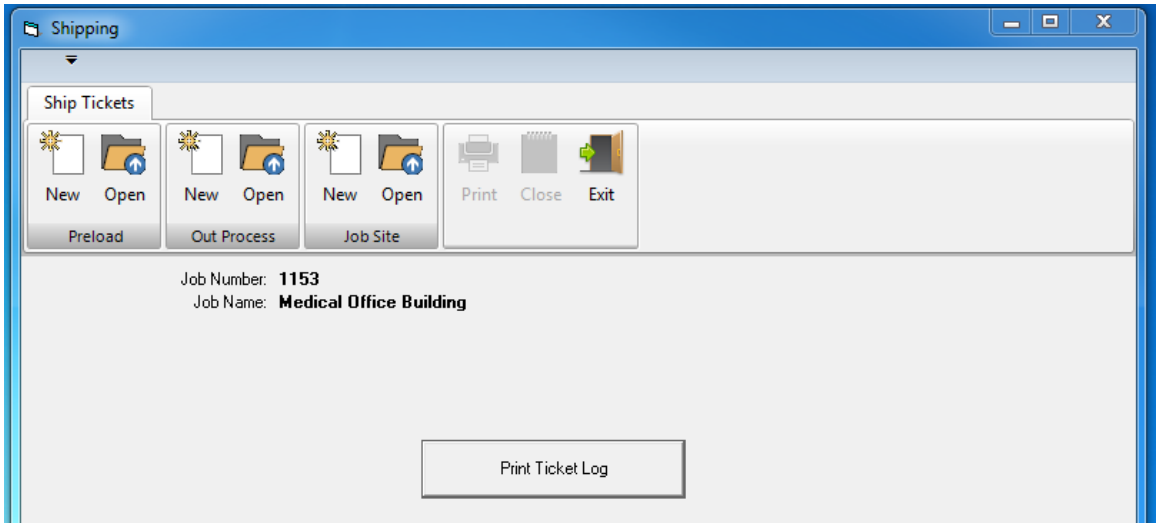
For Outside Process tickets, the Processor and Forward Address information will come from the Outside Processes tab at the Home | Edit | Job Title menu selection.

Two types of shipping documents can be generated to produce the shipping ticket. Additionally a preload list can be generated to pre-stage your shipments and can also be used to generate shop cutting lists.

Items can be added to a load manually or selected from a list of shipping assemblies that have not been placed on a previous load.

All lists or shipping tickets are similar in creation and data entry. Ticket numbers are numeric only and can be up to 10 digits in length.

The “Print Ticket Log” button can be used to print a list of all Out Process, Preload, and/or Job Site shipping tickets.



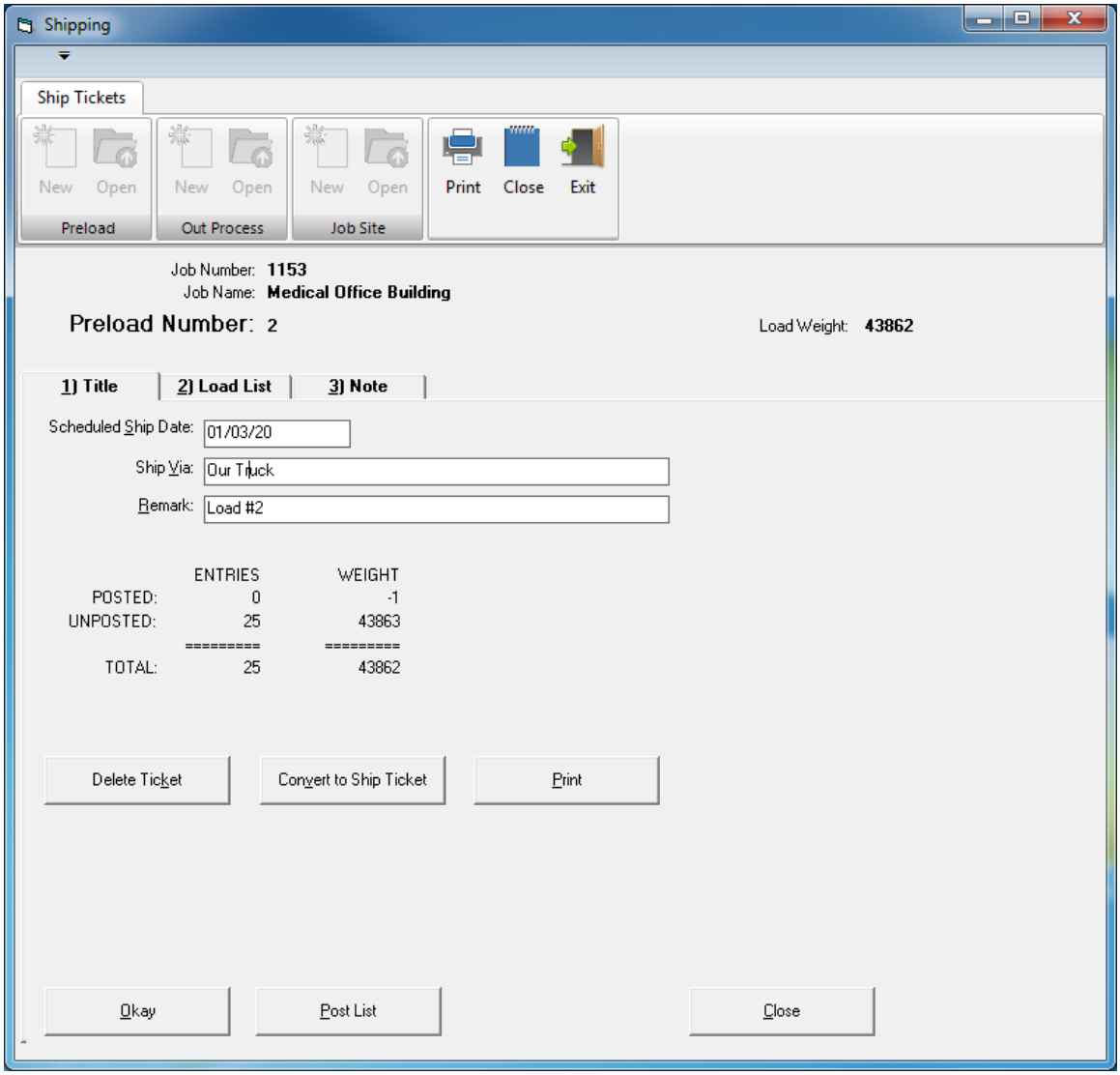
Preload List

The preload list can be used to pre-stage your shipping loads or to create a shop cutting list.

If jobsite space is limited where the job must be erected as it is unloaded from the trailer, you can enter the items onto the loading list in the order that they will be erected. You could then print the load list in reverse order so the loading crew can load in the printed order so the load can be unloaded in erection order. If the input order must be maintained on the printed preload list, you must manually enter the items rather than using the pick list.

The preload list can also be used to create a shop cutting batch that include only the items from the preload list. If you need to put specific items into the shop without regard to which drawing or shipping sequence the pieces are on, you can create one or more preload lists the created the shop cutting batch to only include items on the selected preload list(s). Note, the preload list must be posted without errors before it can be used to create a shop cutting batch.

A preload list can be converted to a jobsite shipping load or can be deleted. It is not necessary to create a preload list in order to create a shipping ticket.



Job Site Tickets

As the name implies, these are for shipments going to the job site. They can be created from a preload list or can created independent of a loading list. Job Site Tickets are created as a load. After a load is built, you covert it to a shipped state using the "Ship" button on the Title tab of an open shipping ticket. Typically, you would not set the ticket status to shipped until it has actually shipped. A load could set on the yard for a few days before it is actually shipped.

The status of an item will list quantities preloaded, loaded and shipped. When you check the status of an item, you can see the exact quantities loaded and the quantities shipped. The total quantity of preloaded, loaded and shipped cannot exceed the quantity of the shipping assembly.

Outside Process Tickets

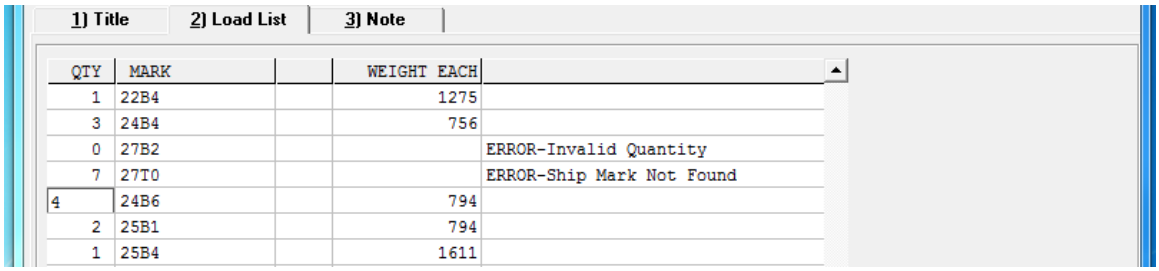
These ticket are similar to the Job Site Tickets in that they are initially entered as a load list before being converted to a shipping ticket. Preload lists cannot be converted to an Outside Process ticket. You can however copy an outside process ticket to a shipping ticket. This would be the case if the materials do not need to come back to the shop after processing by an outside vendor. Quantities of a shipping assembly can be listed on an outside process ticket as well as a Job Site ticket.

Shipping List Data Entry

You have two options to add shipping assemblies to a ticket:

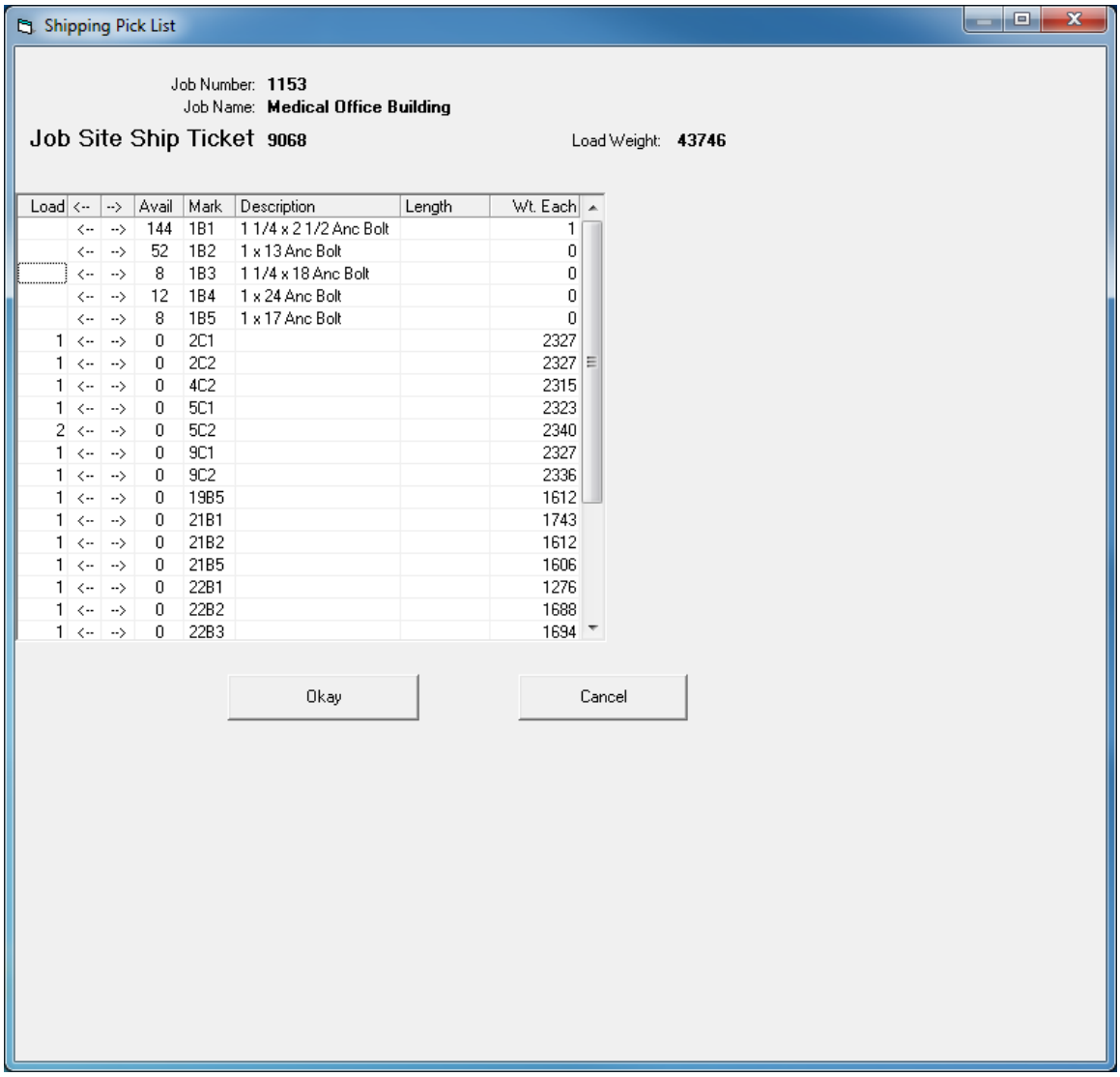
Manual data entry

The first is to manually enter the quantity, ship mark and sequence (if required). Use the Enter key or the Right Arrow to complete each entry. Some error will be caught on entry. Trying to ship more pieces that available to ship will not be caught until you post the list.



Pick List data entry

The second option is to select the items to add to a ticket using the pick list. Click the "Use Pick List" button on the Load List tab. You will be prompted to select the drawings (and sequences if required) to pick from. You will then be presented with a list of all shipping assemblies that are not on another preload list, or shipping ticket plus the shipping assemblies on the current ticket. The first column lists the quantities on the current load. You can enter a quantity in that column, click on the "←" in the second column to add to the load or click on the "→" in the third column to take one quantity off the load. If the load has been posted, all items will be unposted.



Click “Okay” to save all changes or “Cancel” to discard any changes made in the current session.

Posting

A load is not complete until all items on the list have been posted. Posting updates the status of the shipping assembly. You can post or unpost an individual item or an entire list. If you upost an item, it will remove it from the shipping assembly status. You cannot delete an item from the list if it is posted – you must first unpost the item. You cannot print a completed shipping ticket unit it has been posted complete.

Printing

You have several several options when printing a load list/ship ticket.

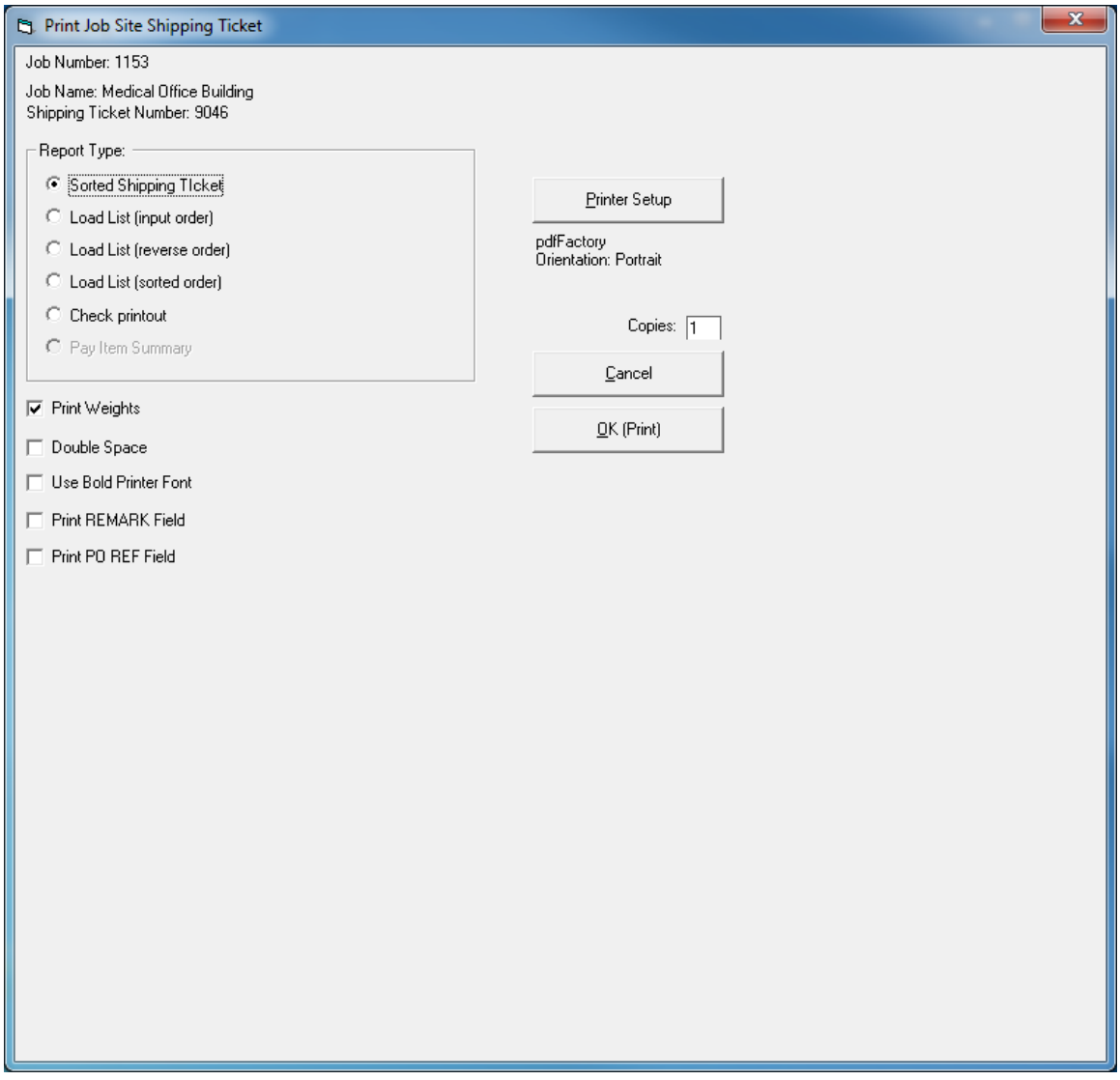
Sorted Shipping Ticket – This is the report that can be sent with the shipment. It includes addresses, weights, etc. The report is only available for a Job Site or Out Process ship tickets.

Load List (input order) – This document can be used to load the truck. The item list is printed in the same order that it was input. This might be helpful if the shipment must be loaded so it can be erected directly off the truck.

Load List (reverse order) – Same as the previous but the list is printed in reverse input order.

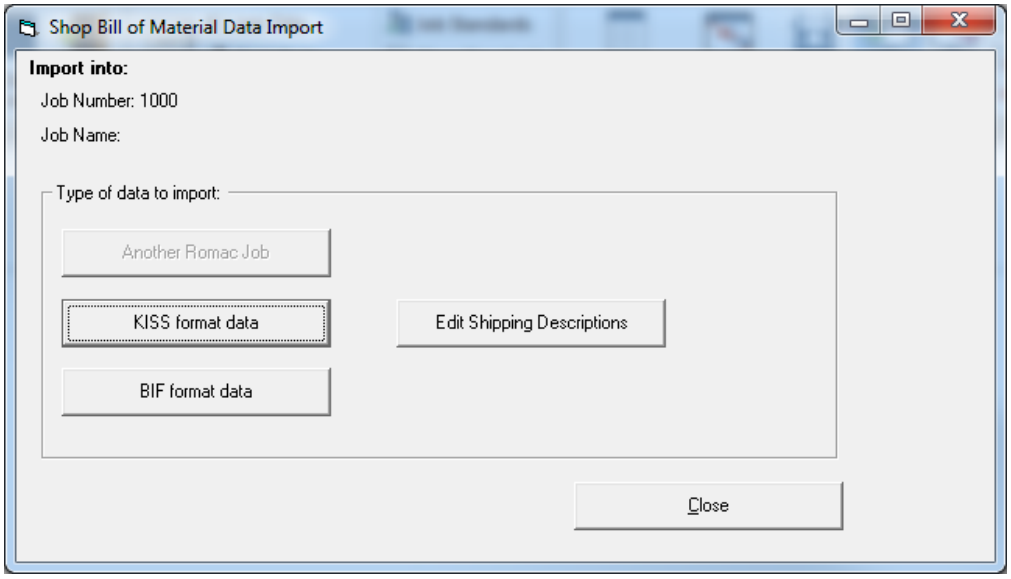
Check Printout – Used for data input checking purposed only. Does not include weights or descriptions.
The "Sorted Shipping Ticket" is only available for a Job Site or Out Process ticket that has a status of shipped. It is a document that can be sent with the delivery.

You also have options as to what to include on the printouts such as; weights, line spacing, bold font and which data fields to include.

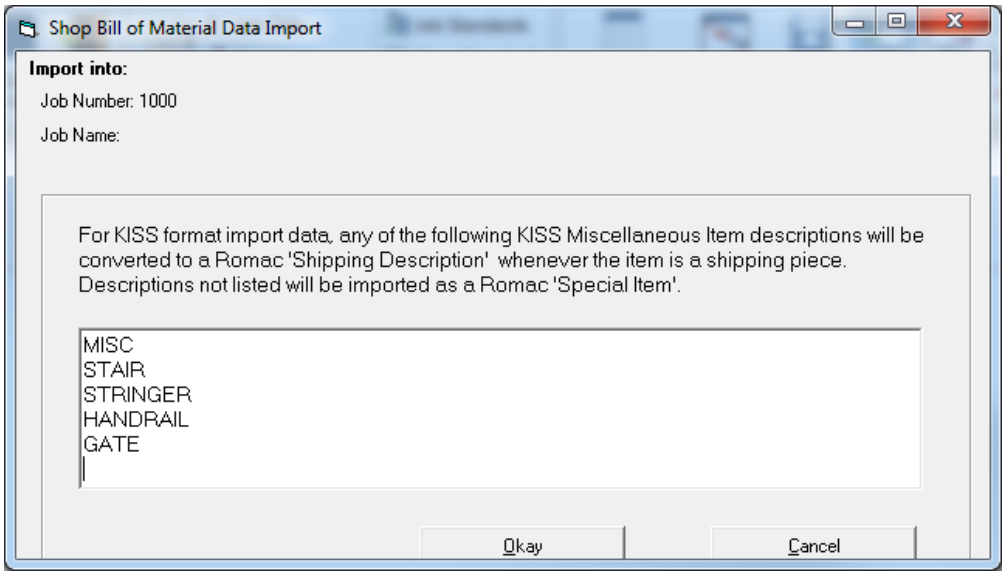


Data Import

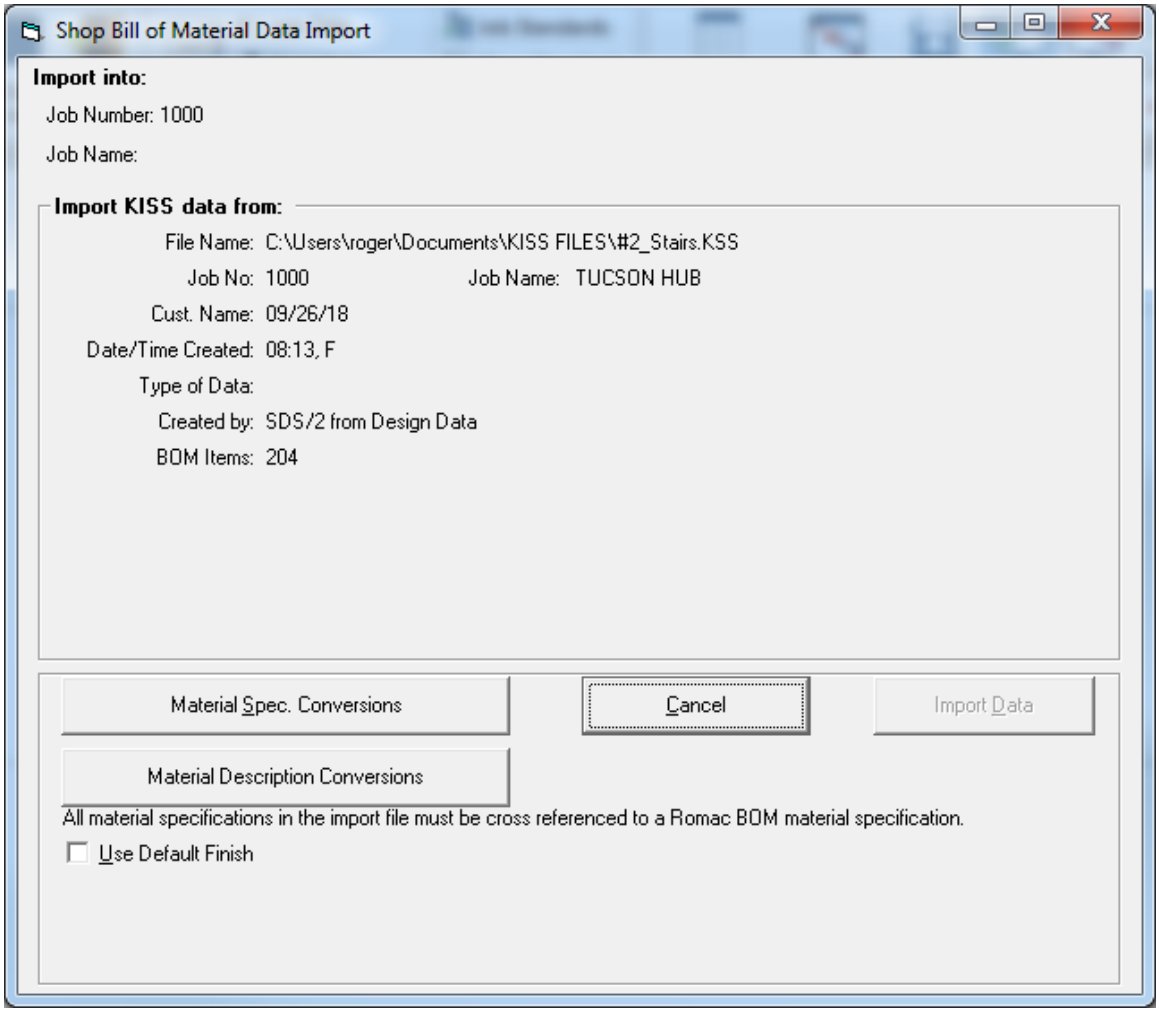
The Data Import module allows you to import SBOM data into the project. Data import is the preferred method of populating the SBOM. Imported data can be manually edited. The program supports KISS and BIF data formats. The BIF format is an older format used by SDS2. The KISS format is available from most detailing programs including Advance Steel, Tekla and SDS2. Additionally, programs are available to convert the detail drawing BOM from some CAD programs to the KISS format. Two suppliers of the programs are Soft Steel, Inc. (softsteelinc.com) and P2 Programs (p2programs.com). Also, KISS files can be exported from the Romac Production Control program.



Edit Shipping Descriptions allows you to enter a list of shipping descriptions that appear in a KISS file that are not materials but are included as shipping descriptions.



To import the BOM, click the button for the file format you wish to import. Navigate to the folder and file you are importing. Select the file to import.

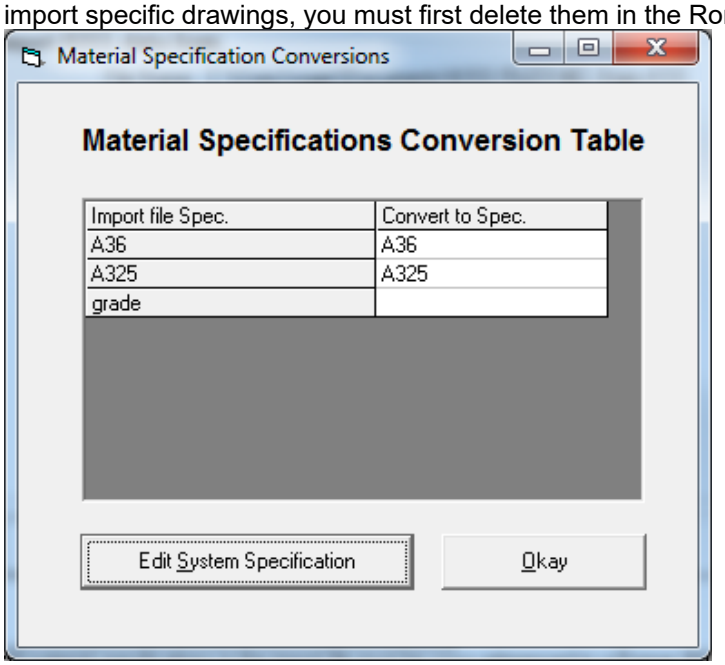


You must match up the specification descriptions in the imported file to the specification descriptions available in the Romac system. If necessary, you can add new specification descriptions to the Romac system.

If the import routine cannot match a material description in the import file to a material description in the Romac database, you will be given the option to change the description. Otherwise, the item will be imported as an 'SI' shape.

If the import file contains sequences and project you are importing into does not have sequences set up, you will have the option as to convert the project to a sequence project. If you do not convert to a sequence project, the SBOM will be imported ignoring sequences.

The import routine will not overwrite a drawing that exists in the Romac project. If you must re-import specific drawings, you must first delete them in the Romac project.

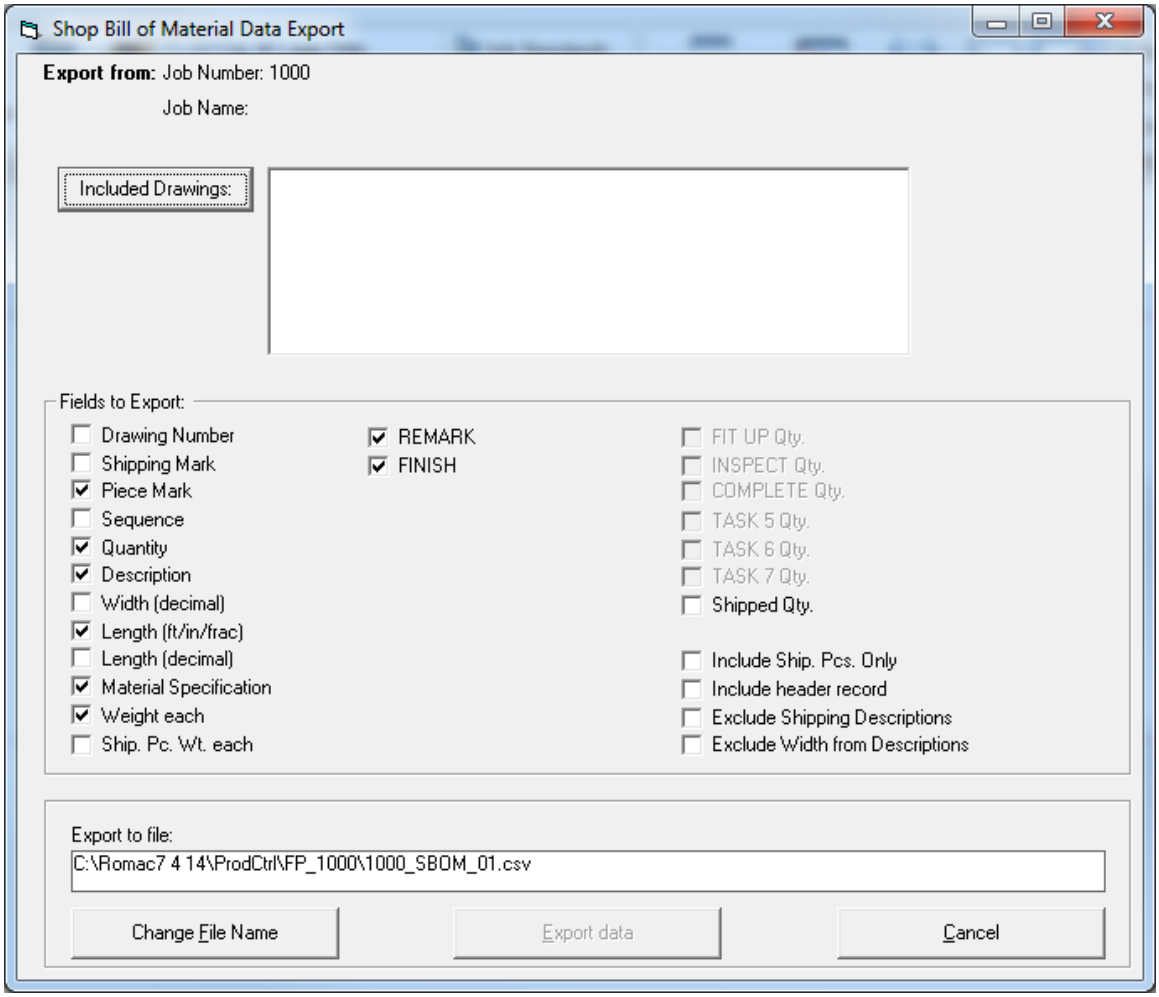


Data Export

Data can be exported using the KISS format or as Comma delimated data that can be open with Excel of similar programs.

In either export, you can specify which drawings to export.

With comma delimited data export you can specify which items to export.

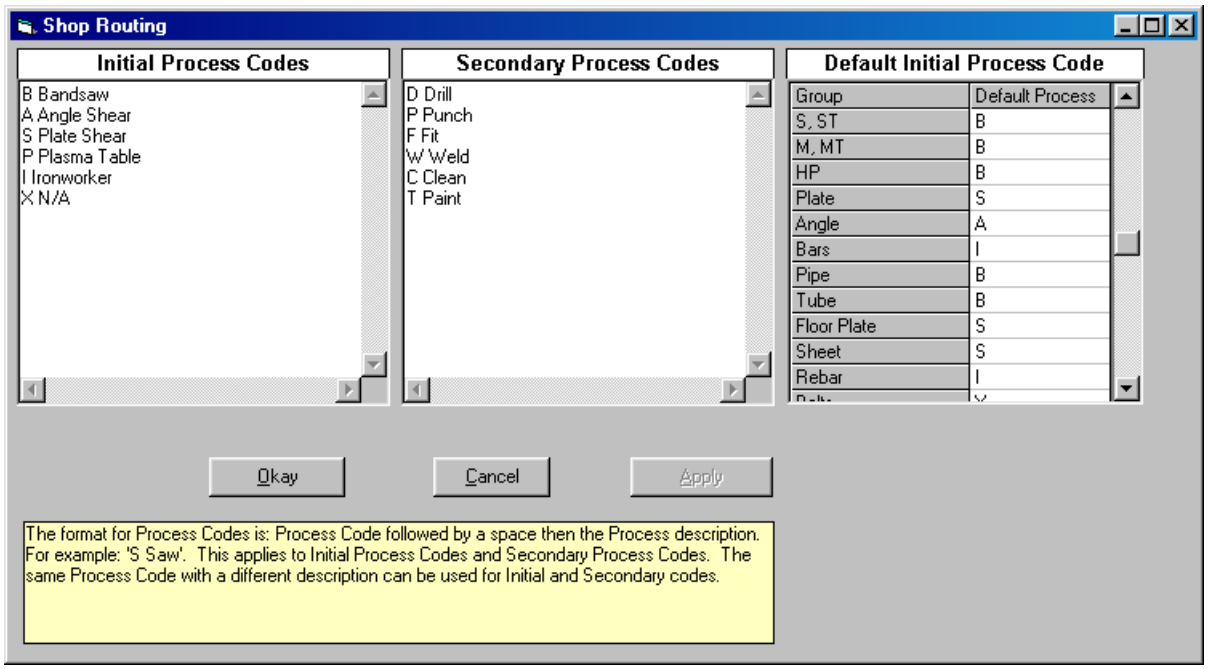


Shop Routing

Shop Routing is used to route material through the shop. Routing codes consist of an initial process code and optional secondary process codes. Currently, a process code can consist of a single character (A-Z and 0-9). The initial process code is usually the first operation performed on a piece (normally the cutting operation but defined as which process is used for cutting such as saw, shear, burning table, etc.). The secondary process would be additional processes such as drill, punch, cope, fit, weld, etc.

Shop Routing is turned on by selecting the checking the 'Use Shop Routing' at the Job Title edit screen. Warning, once shop routing is turned on for a job, it cannot be turned off. Shop Routing can be turned on at any time during the life of a job but if it is turned on for a job with existing shop bill of material, you must edit every bill of material line item to add an initial process code before the bill of material will be useful.

To enter or edit the process codes, select the menu option Maintenance | Routing. Process codes are entered as line items in the text boxes. Each process code entry consists of a single character followed by a space then the process description. The same process code can be used as an initial process code and a secondary process code. The default initial process code is the code that an input item (based on it's shape group) will default to if an initial process code is not entered.



Process codes can be used for job standard items but cannot be used for shop standard items.

The initial process codes can be used when selecting materials to include on a shop cutting list. If process codes are used for the job and 'Use Cut Tracking' is turned on for the job, you will have the additional option to specify which initial process codes to include on a shop cutting list.