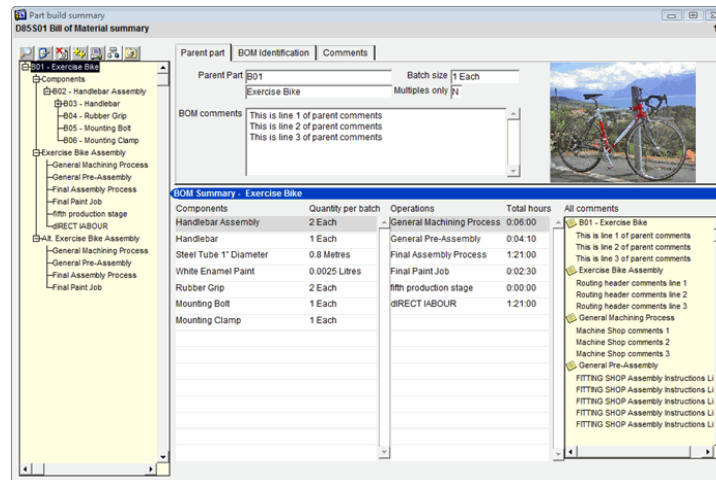


Quickly and accurately model products

- ▶ Ensure accurate planning and scheduling
- ▶ Define your own BOM/formula
- ▶ Effective production, planning, costing and execution
- ▶ Create fully integrated process/manufacturing models with the Relational Process Model
- ▶ Define facilities and resources including work centres, operations, routings
- ▶ Use the concept of variants within a BOM

Ensure product quality and improve efficiency by using the tools available in Answer Bill of Materials/Routes.

Quickly and accurately model products and their corresponding Bill of Materials and optionally their Routings.



This module also includes Product Information Management tools to provide the accurate information you need for effective production, planning, costing and execution.

There are two options available for Product Information Management:

- ▶ Bill of Materials and any associated Routings
- ▶ Relational Process Model

Here we will be focussing on the first option, Bill of Materials (BOM) and Routings.

These prompt Manufacturing to use the correct materials and perform the required processes.

Used effectively, BOM/Routes ensure that Planning and Scheduling ask for the right quantity of resources at the right time and that Finance have the accurate costing details they demand.

Who can use BOM/Routes?

Answer BOM/Routes provides for a wide range of discrete, semi process and process industries.

Define your product BOM or formula and add the Routing/Process definition. Alternatively use the Relational Process Model, also available in Answer Enterprise, to create a fully integrated process/manufacturing model in one step.

Routings are used to define the manufacturing stages, type, operations, departments, work centres and operation sequences, as well as recording the times involved in the manufacture of a product.

Define your own facilities and resources

Work centres can be defined and grouped into departments to track the costs of manufacturing and also for departmental capacity analysis.

A work centre is a specific production facility or resource consisting of one or more people or machines.

Each work centre can have its own capacity, standard rate, current rate, queue time and move time. A machine code can be added to the routing with the work centre code.

A work centre can be an external resource which you will use on a sub-contract basis.

A **manufacturing stage** is a point in the production process where a number of operations are performed, either in sequence or in parallel.

An **operation** is a step in the manufacture of a product.

All the operations required to manufacture a part of a product are commonly referred to as a **routing**.

What is Product Information Management?

Product Information Management (PIM) is used to define the Bill of Materials structure required for production planning and costing.

This is required for both intermediate and finished goods, with work centres and routings to describe the manufacturing process to be followed for the product.

Engineering Change Control is available as a facility within Answer BOM.

Manufacture to customer specifications

The concept of variants within a Bill of Material is provided within Answer BOM/Routes.

This means that a customer can select from a list of options at time of sales order entry. It will enable substitute components within a BOM to manufacture the finished product to the customer's specification.

For example, a *Standard Chair* may have a selection of fabrics, trim and wood stain.

Answer BOM/Routes and Product Information Management are an integral component of the Answer Enterprise application.

Working together with Inventory Management, Purchasing, Sales and Quality Management modules.

Ensure a high level of product quality is maintained in a manner to suit your business.

Bill of Material Management

- ▶ Determine multiple BOM Types and Names
- ▶ Define BOM Batch Size and ability to deviate from Batch Size quantities
- ▶ Provide Security by BOM Type
- ▶ Define multiple BOM's for a Product in different Units of Measure and Batch Sizes
- ▶ Define seasonal components as date effective
- ▶ Define unlimited Finished Goods and/or Intermediates
- ▶ Define both Input and Output Raw Materials/Components/Resources on a Bill
- ▶ Ability to define Co-Products, By-Products and Wastes on a Bill
- ▶ Define Backflushed and Forward Flushed Parts on a Bill
- ▶ Define 'Free Issue' Part
- ▶ Ability to define Shrinkage percentages and Loss Factor Quantities globally or BOM specific
- ▶ Define Products with Component Variants, different fabrics, stains, finishes etc
- ▶ Ability to define Line Side Locations for Backflush and Forward Flush processing
- ▶ BOM Same As Except, Mass Replace and Mass Deletion
- ▶ Define Parent and Raw Material/Component BOM Comments
- ▶ Attach up to 4 standard notes at Header and individual Component level
- ▶ Optionally define Quality Management Specification
- ▶ Quantity Per/Usage defined as Linear, Stepped, Fixed, Ration Percentage against another component, As Required for Batch Size Changes
- ▶ Define overall Yield analysis details for subsequent review and analysis
- ▶ Define which Input Raw Materials/Components will be included in any Yield Analysis
- ▶ Record full Bill Of Material change history tracking details
- ▶ Define expected Yield details and those Raw Material/Components that contribute to this Yield analysis
- ▶ Full Engineering Change Control with Version/Revision level tracking
- ▶ New defined structures. 5 alpha and 5 numeric fields can be used to record specific business data
- ▶ Define Health and Safety Notes

Work Centre Resource and Routing Management

- ▶ Define and Maintain an unlimited number of Work Centres/Resources
- ▶ A Work Centre/Resource can be anything you want it to be – Production Equipment, Inspection Points, etc
- ▶ For each Work Centre/Resource the default times in Days, Hours and Minutes can be defined for Set Up, Run Machine, Run Labour, Move, Queue, Clean Up, Tear Down, plus two User defined categories and an associated Standard and Current Rate for Costing Assigned
- ▶ Determine the Cost Rates per Hour for each category for Standard and/or Current
- ▶ Determine the effect of each Cost on Costing e.g. Fixed, Variable, Direct or Indirect
- ▶ Determine the effect of each category on Scheduling, Capacity and Run Time
- ▶ Define an unlimited number of Routings
- ▶ Define an unlimited number of Operations per Routing
- ▶ Associate a Routing with a BOM Type, Name
- ▶ Alternative Work Centres
- ▶ Ability to define Operation, Part, Labour and Production Facility requirements for each Production Stage/Operation
- ▶ Optionally, define unlimited Text/Comments for the Routing and Operations and assign Standard Notes
- ▶ Define Physical Capacity of Work Centre/Resources
- ▶ Assign Vendor Numbers for External Operations
- ▶ Assign a Non Stock Part and Costing Basis for External Operations i.e. Subcontract
- ▶ Tool and Process sheet definition per Operation
- ▶ Define overlapping Operations with Times and Quantities
- ▶ Record Down Time against a Work Centre
- ▶ Define Skill Levels and Groups required by Operation/Time Type
- ▶ Optionally define which Raw Materials/Components/Additional Outputs should be back flushed/forward flushed per

and Part

- ▶ Determine if Operations are Internal or External (Sub Contract)
- ▶ Associate Work Centres with Operations
- ▶ Ability to override the Work Centre Times, by Category for an Operation
- ▶ Ability to determine the sequence of Operations
- ▶ Define a Routing Quantity that determines what the Operational Times represent and is used in Capacity Planning, Work Order/Schedule release and so on
- ▶ Routing Same As Except
- ▶ Alternative Routings and Standard Routings

Operation

- ▶ Group Work Centres into Departments for capacity analysis
- ▶ Create links between Purchase Order= p Lines and Work Centre/Operations for Sub Contract Operations
- ▶ Optionally perform Work Order/Schedule receipting or booking for external operations/work centres
- ▶ Optionally record additional user defined information, at Work Order or operation, using Answer specifications
- ▶ Define Start and Ending message for each operation for use in Sales Order and WIP Progress enquiries

Packaging Waste

- ▶ Packaging Waste
- ▶ Define certain BOM's as Packaging Waste bills
- ▶ Enable integration to the Packaging Waste module

Product Variants

- ▶ Define Products that can have multiple Component Variant options
- ▶ Variants can be Generic or Product Specific
- ▶ For each Variant, nominate the default Component on the Bill of Material that can be substituted by one of the Variant options
- ▶ For each Variant, define a list of valid Component options together with effectivity dates, Quantity for adjustment factors, Planning and Costing percentages
- ▶ For a Standard Manufacture Product, define the valid Variants for that Product
- ▶ Variants are selected in Sales Order Entry and substituted on the Works Order
- ▶ Sales Order Entry is amplified by selecting the variants the customer requests and Answer automatically performs the substitution

Costing

- ▶ Define and Maintain User defined Cost Group Buckets
- ▶ Run an unlimited number of Costing Simulations
- ▶ Determine Purchase Part Inflation Factors
- ▶ Apply Material Inflation Factors on Cost Extract
- ▶ Apply Standard or Current Resource/Work Centre rates and overheads
- ▶ Maintain Simulated Costs before Roll-Up
- ▶ Apply Fixed and Variable Overhead Inflation Factors
- ▶ Perform Cost Roll-Up
- ▶ Copy Simulated Costs to Current Standards
- ▶ Ability to perform a Selective Cost Roll-Up for a Single Product, with or without Cost update, Single or Multi Level
- ▶ Ability to handle multiple output parts
- ▶ Cost External/Sub Contract operations either per unit or on a time basis

Enquiries and Reports

- ▶ Single and Multi Level Explosion enquiries and reports
- ▶ Single and Multi Level Where Used enquiries
- ▶ Routing and Operations enquiry
- ▶ Worksheets for Materials, Operations, Operation Materials, Production Facilities and Labour

- and reports
- ▶ Single and Multi Level Costing enquiries and reports
- ▶ Bill of Material Change History enquiry
- Facilities
- ▶ Plus many more

For more information visit the Answer Solutions website or contact us.

Answer Solutions Ltd

The Innovation Centre
Festival Drive
Ebbw Vale
NP23 8XA

w: www.answersolutions.com
e: info@answersolutions.com
t: 01495 356771
f: 01495 356774