*TECHNICAL BULLETIN FROM GLOBAL BUSINESS SYSTEMS*

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# Global 3000 Bill of Materials version 4.2 and Global 3000 Works Order Processing version 4.2 now available

## INTRODUCTION

Global 3000 Bill of Materials version 4.2 and Global 3000 Works Order Processing V4.2 are now both available. This adds to the range of Global 3000 modules which comprises Creditors Ledger, Debtors Ledger, General Ledger, Stock Control, Sales Order Processing, Purchase Order Processing, Cash Manager and Asset Register.

Version 4.2 of both Bill of Materials and Works Order Processing have been created by adopting modules from Universal Micro Systems and integrating them into the standard Global 3000 V4.2 modules.

## BILL OF MATERIALS

### FEATURES

- Maintains accurate material costs for manufactured products and assemblies so that these may be used for later budgeting and pricing purposes.

- Not only is it possible to produce kitting lists and trial kitting lists for multiple assemblies but the operator is also given the cost of a kitting and a clear report on the availability of materials both in terms of what is currently in stock, on purchase order and due for delivery.

- Allows new bills of materials to be created quickly and easily either from raw data using the powerful enquiry and data transfer facilities inherent within Speedbase or, if the new assembly is based on an existing one, this can be duplicated and subsequently modified as necessary.

- Information for each assembly may include the following:

· Material code and description
· Quantity and unit of quantity
· Standard wastage allowance for each component of the assembly
· Standard route followed by the assembly
· Assembly reference or drawing number
· Individual component references or drawing numbers and notes
· Relationship to other assemblies
· Assembly notes and comments.

## CREATION

The initial creation of a bill of materials can be carried out in two ways. If it is an entirely new assembly then the components may be chosen by selectively searching through lists of parts or materials and identifying them from the list. This will automatically transfer the basic information into the bill of materials. Quantities, standard wastage and other details may then be added.

Alternatively, if the new bill of materials is similar to an existing one, the original may be selectively copied and then modified to produce the new bill of materials.

The relationship between one bill of materials and any sub-assemblies contained within it is automatically established as the bill of materials is created.

## KITTING LISTS

Trial kitting lists are available in two forms. They may be obtained either for a quantity of a single assembly or for different quantities of multiple assemblies.

· Trial kitting list with costs
· Trial kitting list with material availability including current stock and on purchase order
· Standard kitting lists may be created and remain for repeated use until deleted or modified

## ASSEMBLY STANDARD COSTS

The standard costs of the material element of an assembly are taken from the standard costs held on the product file. A routine may be periodically run to update these costs selectively, or throughout all assemblies and levels of assemblies.

Labour and other costs may be separately identified by setting them up as service forms in Stock Control and including them in the bill.

## PRODUCTION ORDERS

In situations where a full Works Order system is not required, a simple Production Order may be created and printed. Quantities produced against a Production Order may be entered and will automatically be posted into the stock control module.

If the backflushing option has been selected within the system parameters, then as the quantity produced is entered, the theoretical quantities of materials will be deducted from stock on the basis of the quantities in the bill of materials, including standard wastage allowance.

## WHERE USED

In the event of an actual or potential shortage of a component or raw material it is frequently useful to know in which other assemblies that component is used. This information is immediately available to the operator.

If a component is to be universally replaced by an alternative or by a new version this can be carried out automatically by making a simple screen request.

## ENQUIRIES

The following enquiries may be made on screen:

- Assembly details
- Sequential sub-assemblies
- Where used
- Standard assembly costs.

## REPORTS

The following standard reports are available:

- Bill of materials by range
- Exploded bill of materials by range
- Trial kitting list – costed
- Trial kitting list – material availability
- Standard cost of material by assembly

There is no practical limit to the number of levels of sub-assembly which may be established and reported on in the exploded bill of materials. The first four levels are visually identified by indenting them on the report and any subsequent levels are numbered.

The standard reports may be enhanced or modified and additional reports defined using Global Reporter.

# WORKS ORDER PROCESSING

Works Order Processing allows works orders to be raised directly. Given the required completion date, it will roll back through the operations taking into account machine loadings for all works orders to give a latest start date for the works order to be completed on time.

This process will take into account equipment availability resulting from other works orders already on the system.

Availability of materials is also taken into account and if Purchase Order Processing is in place then the daily or weekly requirements of materials will also be suggested. This enables lower stocks to be maintained without risk of stock-outs.

Works Order Processing shares all the advantages of the Global environment with powerful enquiry facilities and flexible reporting.

Sophisticated costing facilities are available and QA tests may be maintained and results recorded.

# FEATURES

## WORKS ORDER TYPES

Works orders may be created by the following means:

- Direct creation

## WORKS ORDER DETAILS

Each works order may contain the following information:

- Assembly reference
- Assembly description
- Related sales order transaction number and order details
- Planned start date
- Required completion date
- Route number
- Workstations within the route
- Operations at each workstation – in process order
- Materials required for each operation – in operation order
- Detailed instructions

If the completion of the route takes more than one day, the above processes may be broken down to show the dates on which each operation should be taking place.

## ROUTING

A four character alphanumeric field allows virtually unlimited numbers of routes to be set up. Each route will consist of a series of workstations together with the operations which are to be carried out on those workstations. The same route may be used for different assemblies or products or a new route may be easily created if required.

## WORKSTATIONS

A workstation may be a department, section, machine or processing plant or an associated group of machines or process equipment. A four character alphanumeric field is used to define the workstation. Details held are as follows:

- Number of shifts
- Workstation hours available on each shift
- Operating efficiency for each shift
- The cost per hour or per day of operating the workstations in terms of electricity, gas, floor space and other services.

## OPERATIONS

A six character alphanumeric field allows virtually unlimited numbers of operations to be defined. These are identified in the first instance by a single line description to which may be attached an unlimited amount of text. The operations may be used on more than one workstation. For each operation the following information is held:

- The material required to complete the operation
- The labour type
- The type of operation: i.e. whether set up, productive or both
- The standard time laid down to complete both the set up and the manufacture of a single unit
- By calculation, the unit cost of that operation
- Operational times may be detailed either as the time to carry out the operation on one unit in minutes or hours or as the throughput rate per minute or per hour.

## LABOUR CLASSIFICATION

A two character alphanumeric field allows up to 729 different categories of labour to be defined together with their standard rates of pay.

## BATCH TRACKING

Global 3000 Stock Control enables batch numbers and/or serial numbers together with expiry dates to be held for any component, raw material or assembly. These may be issued and recorded within works orders.

When goods are subsequently sold, the batch or serial numbers may be recorded together with other details on the sales order, which enables a full

search to track materials from their destination back to their source.

The full history of components may be tracked either from the purchaser through to the final customer for the finished good or from the finished good/customer back to the original supplier.

## PRODUCTION TRACKING

As information is entered on the completion of each operation the system will use this to enable management to see at any time the progress of any works order.

## Q.A. TESTING

Specifications may be held for all products and the actual results of tests recorded for later reference. Any number of tests may be carried out and notes maintained of corrective procedures which take place to get from one set of tests to the next.

## COSTING

The system will maintain the standard cost of producing a works order in terms of materials or direct and indirect labour, and will also provide variances in value and percentage terms for differences between the actual cost of production and the standard cost.

## REPORTS

The following may be reported upon:

- Combined works order/route/workstation/materials required
- Materials required by works order
- Labour required by type by works order
- Work in Progress – labour posted, materials issued
- Work in progress material valuation
- 14 day material requirement
- 14 week material requirement
- Completed Works Order cost variance report
- System setup reports, employee details, labour types, operations, pay elements, QA testing, routes and workstations.

All reports offer selection options. Additional reports may be defined using Global Reporter.

## ENQUIRIES

Extensive screen enquiry facilities are available including:

- Works orders currently in issue with details
- Daily labour available and required
- Daily workstation loading
- Works order cost to date identified as material, labour and total
- Individual material costs to date by works order
- Labour type costs to date by works order
- Components/Material batch/serial numbers – where used.

## PRICING

| | *Bill of Materials* | *Works Order Processing* |
|---|---|---|
| 1 user | £500 | £800 |
| 2 – 3 screens | £890 | £1190 |
| 4 – 7 screens | £1390 | £1790 |
| 8 – 12 screens | £1890 | £2390 |
| 13 – 24 screens | £2390 | £2990 |
| 25 – 39 screens | £3090 | £3990 |
| 40 – 59 screens | £3990 | £4990 |
| 60 – 99 screens | £4990 | £6590 |

Service pricing is 17.5% of the above list software price.

Please use product code ZB for Bill of Materials and ZK for Works Order Processing.

Reseller copies are available at copy charge.

## INTEGRATION

For either Bill of Materials or Works Order Processing to run successfully the user also must purchase at least Global 3000 V4.2 Stock Control and Product Maintenance.

To obtain the full benefits of the software users are strongly advised to purchase Sales and Purchase Order Processing.

## DOCUMENTATION

Two new manuals – ZBMV4.2 (Bill of Materials) and ZKMV4.2 (Works Order Processing) – are available in A4 bound format. These manuals will be distributed automatically with every purchase of the software.

## SOURCES

Source code to the two modules will subsequently be made available at £3000 per module and is subject to a Global 3000 Source Agreement as documented in Chapter 10 of the Reseller Handbook.

## SERVICE

Support for both these modules is provided in the initial phase by Universal Micro Systems via Global Business Systems. Resellers should complete Hotline support faxes and send them to our City office in the normal manner. Our Hotline staff will liaise with UMS staff in order to provide speedy resolutions to any problems.

## QUALITY CONTROL

Global 3000 BOM and WOP version 4.2 have been produced in association with Universal Micro Systems. This joint development has prevented Global Business Systems from fully carrying out their normal high standard of Quality Control in the time available.

In addition this software has been released with a few known problems which will be fixed by zaps in the near future.

## KNOWN PROBLEMS

There are a number of problems that have been found during Quality Control that will be fixed by new components released through autozaps.

### File full handling

There are a number of areas where file full conditions result in misleading messages and even Exit codes. It is therefore recommended that large data sets are allocated.

### Variance left in Work In Progress account

Variance in quantity ordered and quantity completed is not cleared from the WIP account.

### Right justified codes

Right justified component/product codes are not accepted.

### Issues from quarantined stock

Issues are incorrectly allowed from quarantined/requires inspection type batches.

### Pagination of some reports

The pagination of some reports is incorrect.

## Database in exclusive use

It is possible to get an Exit Code 25524 if an attempt to access the BOM or WOP database is made when it is in exclusive use by an operation such as database re-build.