

Advanced **Manufacturing** System



COMPETITIVENESS IS ESSENTIAL...


Competitiveness is essential for manufacturing companies. Markets are constantly evolving and changing with increased momentum of globalisation. To survive, manufacturers must be competitive. To maintain and grow a company's position in the market, the focus needs to be on three key elements that drive the industry. They are quality, efficiency and productivity. Complexity arises when trying to maximise each element without creating a negative effect on the others.

To help manage this complexity we have developed the Advanced Manufacturing System (AMS), a software package designed specifically for the manufacturing industry. The AMS simplifies the management and control of every step of a business's manufacturing process. From planning to production, raw materials to finished goods, every detail of your business's manufacturing operation can be managed by AMS.

AMS is a comprehensive yet simple to use application for manufacturers in all industry areas.




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AMS is a flexible software suite designed to simplify planning and managing production processes. AMS integrates with the Advanced Business Manager (ABM) and Sybiz Vision accounting packages to combine accounting, production, ordering, and inventory management.

AMS manages all aspects of the production and accounting process via an intuitive, user friendly interface. Each AMS module is designed to provide specific manufacturing functionality and can be purchased separately in accordance with individual business requirements. All modules are fully integrated with each other as well as the accounting system that is being used.



Industry Application

No matter what type of manufacturing a business does, AMS can assist with logging time and materials consumption accurately, efficiently planning production, analysing plant and labour performance and streamlining ordering of raw materials

AMS is utilised in a range of manufacturing industries including:

- | | | | |
|----------------------|---------------------|------------------------|---------------------|
| ■ Aerospace | ■ Apparel | ■ Computer Equipment | ■ Primary Metals |
| ■ Agriculture | ■ Footwear | ■ Chemicals | ■ Textiles |
| ■ Medical | ■ Furniture | ■ Assistive devices | ■ Building Products |
| ■ Automotive | ■ Microelectronics | ■ Electrical Equipment | ■ Giftware |
| ■ Sporting goods | ■ Forestry products | ■ Oil and gas | ■ Pharmaceuticals |
| ■ Plastics | ■ Food & Beverage | ■ Commercial Printing | ■ Bio Fuels |
| ■ Telecommunications | ■ Electronics | ■ Marine | |

With many successful implementations and satisfied customers internationally, AMS has proven itself as a universally beneficial product.

Testimonial

AMS has provided a wonderful platform to enable us to understand our manufacturing operations from all business perspectives. Our business is not traditional in the sense that we are neither a job shop nor process oriented; in fact we are a combination of both. The AMS solution flexibility combined with hands on customer service from Concept Engineering allowed us to modify the programme to suit our very dynamic needs. AMS is adding value to our business and that is always important when investing in information systems.

CEO
Priestley's Gourmet Delights



AMS is the result of many years experience with a wide range of manufacturing businesses. It is being continually enhanced to keep in step with a rapidly changing business environment. Because AMS is easy to learn, cost effective and flexible, it quickly becomes an essential part of a business's growth strategy.

With its extensive functionality, AMS:

Provides greater process management

Improving information and control over every step of manufacturing.

Allows for multiple stages of production, outwork and WIP

Extends the production facilities provided on a standard BOM system.

Manages and utilises inventory stocks efficiently

Using powerful demand and supply analysis tools.

Allows for detailed analysis of production data

Using provided standard reports or create your own customised reports

Links demand and production together

Allows accurate and efficient production to match demand.

Generates comprehensive reports



Benefits

Improves planning efficiency

A variety of functions allows plans to be created from quality information.

Reduces time wastage

Reduces time used for managing and controlling all manufacturing activities.

Enables fast, efficient changes to production

Flexibility in the system allows for last-minute changes to production

Integrates with the accounting system

Processes relevant manufacturing information to the accounting system thereby removing the need to enter information more than once

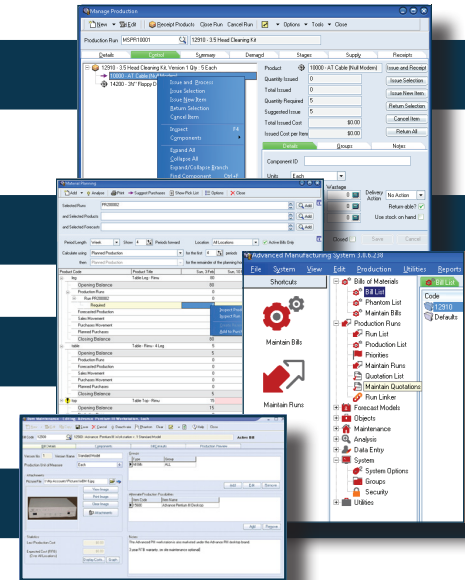
Enables flexibility for bulk transactions

For users who need to enter bulk transactions against multiple production runs.

Integrated Quotations

Create quotes for custom builds and integrate these with the business sales and production processes.

And much more...



Advanced Manufacturing System (AMS) has a range of comprehensive, and yet simple to employ features. AMS includes functionality that brings depth and control over the manufacturing environment, providing the tools needed to understand and grow the business. Here are just a few features found in Advanced Manufacturing System:

Accounting System Integration

AMS seamlessly integrates with the Advanced Business Manager (ABM) and Sybiz Vision financial systems to combine accounting, production, ordering, and inventory management. Integration with the financial system means no double-entry of information, as the system allows transactions made in AMS to be posted automatically into the business's accounting system. Reducing the time it takes to manage your business's financial information enables time efficiency within administration.



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Reporting

AMS uses Crystal Reports engine to provide rich, detailed reports for all aspects of the production process. The Crystal Reports engine provides a high degree of flexibility, allowing freedom to customise reports to meet specific requirements. The reporting system delivers numerous features including:

- Dynamic changing of report data groupings and report data sort order
- Smart filters to focus on just the information you are interested in
- Linking reports to other screens in the system to simplify access
- View on screen or export to MS Excel
- Easy to use interface
- And more...



System-Wide Features

Real-time Updates

All data used by AMS is updated in real-time as transactions are processed in both AMS and in the business's accounting system. Inventory levels and quantities on sales and purchase orders are maintained as production runs are processed and sales and purchase orders are updated. AMS updates general ledger account balances for work in progress ensuring financial reports are always available up to the minute.

Simple and Familiar Interfaces

Menus and navigation within the system are simple and fast. By using familiar Microsoft Office style menus, fast toolbar menus, and handy hot keys, AMS creates a friendly environment for all users.

Users can tailor their AMS desktop to provide easy access to the functions and information they use most often.

Database

AMS uses the Microsoft SQL Server database engine for superior reliability and performance with added security to your company's data.



Each AMS module provides specific manufacturing functionality and can be purchased separately in accordance with individual business requirements, with the exception of the Bill of Materials module which is required for the system. The modules are based around the core functionality of bills of materials for items that are manufactured by a business.

Bill of Materials (BOM) Module

The Bill of Materials (BOM) module is the foundation of AMS and provides the user with a powerful and flexible BOM and production tool. Features include:

Bill of Materials Maintenance	Versions and Linked Information	Workflow Management	Components	Component Detail
The bill of materials functionality makes the task of maintaining detailed bills of materials, including sub assemblies, labour and overhead expenses for a product easy. Bills can be manually created within the system or imported from external data files.	BOMs can be created, maintained and deleted, and multiple versions of each BOM can be used with user definable names and pictures for each version. Maximum and minimum production limits can be set, and additional notes and attachments can be recorded.	Work flows for producing BOMs can be managed using stage and workcentre functionality. Stages and work centres can be used by the Extended Production module to provide flexible capacity planning.	Unlimited components and sub-assemblies are allowed per BOM. Inventory items, overhead expenses, labour, resources, outwork and milestones may be set as components. Where a choice between components is possible, this can be set using an Alternate component.	Each component can have its own notes and documents attached to it. Fixed and variable quantities required for production may be recorded and wastage can be specified as either a percentage of the main quantity or an absolute value.



Module Features

Customised Production Runs	Multiple Products per Production Run	After the Fact Production Recording	Hierarchical Tree Interface	Easy Production Management	Linking to Jobs in the Accounting System
Each production run can use either the standard BOM or the user can customise a BOM for a specific production run. Facilities are provided for comparing costs and shortage reports can be generated (with the Supply Analysis module). Multi-location inventory and serial/batch tracking is fully supported.	Each production run can be for one or more product providing huge flexibility for the user. In this way production runs can be organized to best suit the business's processes, either combining products that should be manufactured together or separating them for simplified management.	The BOM module accommodates 'after-the-fact' production recording. As each production run is completed, the component items used are consumed, and the finished products are received into inventory. Variance reporting is available to allow comparison of the time and materials used against the standard from the BOM.	<p>The AMS maintains bills of materials with an easy-to-use hierarchical tree interface. The user can produce accurate and informative reports detailing bill structures, expected costings, component requirements and production history.</p> <p>A strong foundation for all other modules to be added to, the BOM module has the capability to extend its functionality with additional modules or alternatively be used as a system on its own.</p>	The standard BOM module allows production runs to be processed in a similar way to traditional bill of materials modules. The user can plan production of an item, entering basic information such as the quantity, date and location. When the run is ready to be produced all of the issues and receipts are done in one step and the appropriate stock records are updated.	Each production run can be linked to jobs in the accounting system's job costing ledger and can receipt products directly to jobs rather than into finished goods inventory.



Extended Production Module

The Extended Production module extends the production facilities provided in the standard BOM module to allow for multiple stages of production and work in progress.

Detailed costs can be entered against a production as required and all production costs are posted against work in progress (WIP) accounts until they are either returned to stock or finished

product is receipted into stock. WIP values can be posted to the general ledger based on the type of product, production run or component.

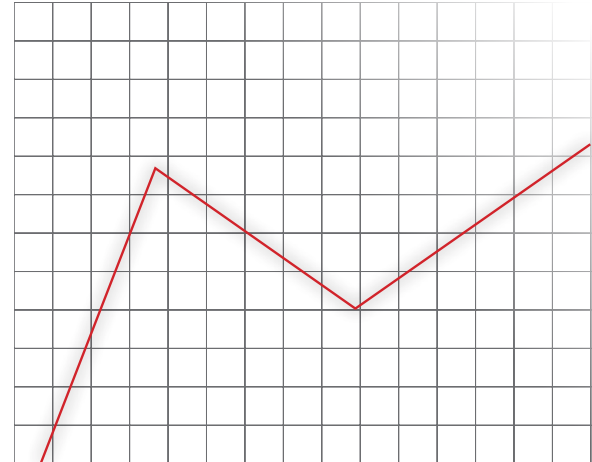
The Extended Production module provides access to scheduling features such as capacity planning.

Forecasting

AMS Forecasting gives users the ability to create plans of demand for determining future production requirements.

AMS forecasting includes the following features:

- Several forecasts can be created for manufacturing of products
- Forecasts can contain any number of products along with quantities required, locations and dates required
- Forecast models interact with BOM, allowing easy updates if the master BOM changes
- Forecasted products are easily included into the materials planning module, blending actual requirements with forecasted requirements.



Module Features

Job & Bulk Entry Module

Job and Bulk Entry provides a very flexible interface for users who need to enter transactions against multiple production runs at once.

In particular it:

- Provides job entry functions allowing the user to select the type of transaction (production issue, receipt, production build, labour, etc.) and quickly complete the transaction details without having to separately open each production run.
- Provides a facility to import transactions from external data files.
- Is designed for fast data entry.
- Optionally allows users to confirm the actual component issues and receipts when production builds have been entered.
- Supports all issues at all levels of BOM for production runs including sub-assemblies



Supply and Demand Analysis Module

One of the most critical and time-consuming aspects of manufacturing is maintaining sufficient levels of raw materials and subassemblies without carrying more stock than necessary. Purchasing and production decisions are based on a wide range of data, including existing stock levels, planned production runs, purchase orders, sales orders, lead times and minimum order quantities.

Supply Analysis

The Supply Analysis function manages the material requirement planning process. The module simplifies and speeds up the work processes of purchasing by analysing component demand and taking into account lead times for an inventory item to come up with a list of expected shortages. Reports can be produced to show when orders need to be placed with the supplier. Purchase orders immediately can be raised if required.

AMS can analyse a range of production runs for shortages and requirements, or just focus on a single production run. Components can be reserved for a specific production run, improving the visibility of stock commitments and reducing the likelihood of materials being used for other purposes and jeopardizing the production plan.

Production runs can be analysed for sub-assemblies that need to be built before completing the final products, allowing additional production runs to be created for sub-assemblies, and linked to the run for the final product.

AMS integrates with the purchasing process of the accounting system so that when goods are received into stock through the normal purchase delivery process, they can be automatically issued to the appropriate production run, reducing data entry.

Demand Analysis

Sales orders, production runs, stock shortages and minimum stock levels can all produce demand for a product. The AMS Demand Analysis function analyses product requirements in the accounting and manufacturing system by examining sales quotations, orders, deliveries, invoices, job quotations and other production runs to determine recommendations for required production runs. The user can allocate these sources of demand, either increasing the quantity required in an existing production run, or creating a new production run.

By linking orders to specific production runs, it is straightforward to identify customers that may be affected by changes to the production schedule. When finished goods are completed in a production run, documentation can be automatically produced to ensure that they are dispatched to the correct customer.

Module Features

Material Requirements Planning

The Supply and Demand Analysis Module also includes a material requirements planning (MRP) function. MRP uses the same information as the supply and demand analysis functions but displays the product information using a time-phased planning grid, providing an intuitive view of both current stock levels and future stock levels based on existing commitments and forecasts.

After entering a few simple parameters, the module completes a powerful and comprehensive analysis process, providing information on:

- Existing production run requirements
- Expected sales and purchase deliveries
- Forecasted demand
- Minimum stock levels
- Expected shortages by date
- Suggested purchases by date
- Suggested production runs by date

The screenshot displays the 'Material Planning' window with a grid showing inventory and production data over time. The grid is organized by Product Code and Product Title, with columns for specific dates. A context menu is visible over the 'Run PR200002' row, offering options like 'Inspect Product', 'Inspect Run', 'Create Requisition', and 'Add to Purchase Order'.

Product Code	Product Title	Sun, 3 Feb	Sun, 10 Feb	Sun, 17 Feb	Sun, 24 Feb
leg	Table Leg - Rimu	80	0	0	0
	Opening Balance	80	80	0	0
	Production Runs	0	80	0	0
	Run PR200002	0	80	0	0
	Required				
	Forecasted Production				
	Sales Movement				
	Purchases Movement				
	Planned Purchases				
	Closing Balance	80	0	0	0
table	Table - Rimu - 4 Leg	5	5	5	5
	Opening Balance	5	5	5	5
	Production Runs	0	0	0	0
	Forecasted Production	0	0	0	0
	Sales Movement	0	0	0	0
	Purchases Movement	0	0	0	0
	Planned Purchases	0	0	0	0
	Closing Balance	5	5	5	5
top	Table Top - Rimu	15	-5	-5	-5
	Opening Balance	15	15	-5	-5
	Production Runs	0	20	0	0

Materials Planning Grid

Production Quotation Module

The module allows users to customise BOM information in response to particular client requirements and then provide a quotation to a client based on the anticipated costs of the customised bill of manufacturing.

In particular, the module:

- Records quotation information such as the customer's name, payment terms, note, expiry date, etc.
- Maintains quotation details including individual items for the quotation such as inventory items, ledger accounts, text, and for each item specifies quantity, sales analysis and pricing information.
- Allows adding of one or more BOM to the quotation and for each bill maintains all of the production run details.
- Allows each BOM in the quotation to be varied on an 'as required' basis. Full costing and margin information is displayed for each BOM allowing the user to make accurate decisions on costing methods and markup amounts.
- Produces printed professional quotations for the customer.

Once the quotation has been accepted by the client it can be converted to planned production runs and a sales order can be raised in the accounting system, demonstrating the module's convenience and efficiency through powerful integration.



About Concept Business Systems

Philosophy

Information is one of the most valuable assets an organisation has, if managed correctly. Concept Business Systems Limited designs and maintains innovative solutions for the effective and efficient management of client information.

This philosophy promotes and produces systems that not only meet present specifications but also provide an effective foundation for future organisational requirements. The flexibility inherent in adaptable software applications allows for system changes as and when required, with minimal design change. This fosters long term savings and maximises the use of information.

Concept Business Systems Limited is committed to system designs which are developed for the client, to fulfil their information needs. Solutions provided are innovative, cost effective and customer driven with a strong emphasis on continuing support for the product.

User interface and ease of use are of primary importance in the design of any computer software system. Concept Business Systems Limited places a strong emphasis on the development of a user friendly interface which reduces the requirement for training and improves the ease of software use and end-user acceptance.

Support

Support does not stop once a system is installed and completed. Concept Business Systems Limited provides a range of on-going consultancy and support services which can be adjusted to meet individual client requirements.

Other Concept Engineering Products

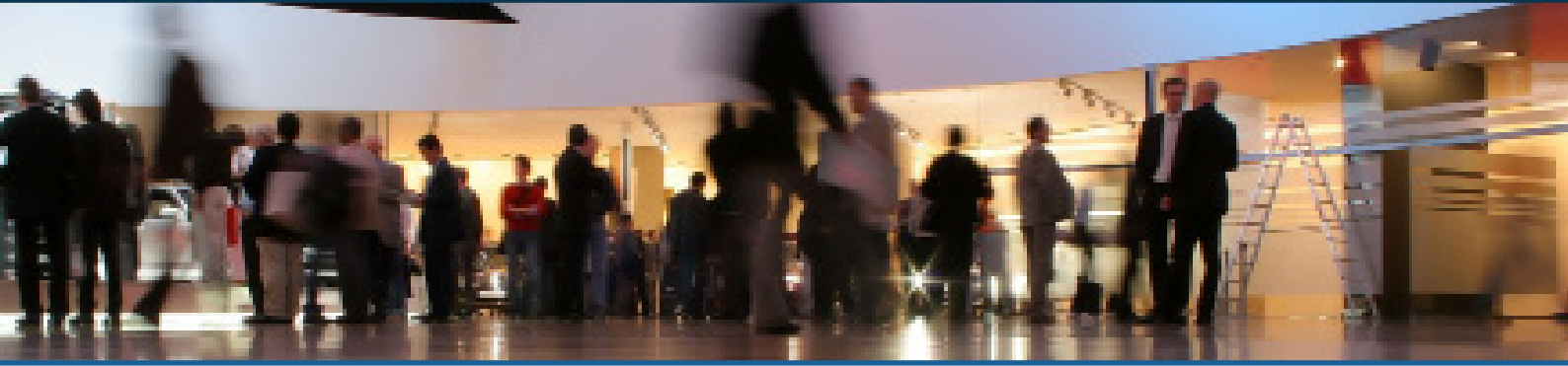


The Time Management System (TMS) is designed to provide a mechanism for staff members to enter time sheet information against jobs using flexible and efficient entry methods. TMS is perfect for businesses providing professional consultancy to their customers allowing flawless recording, invoicing and professional management of their services.

Along with time sheet entry, there is also the facility to:

- Maintain jobs, staff members and labour rates
- Write on and write off job costs
- Neutralise work in progress
- Manage disbursements against jobs
- View job financial information with a breakdown into time sheet, write ons/offs, disbursements, fees charged, and credit/payment transactions by job within a date range.
- Generate reports on job financial information

About Concept Business Systems



Other Concept Business Systems Services

As information system consultants, Concept Business Systems Limited provides consultancy, advice and support for all of its software solutions.

Concept Business Systems's friendly, experienced team are able to design systems for your company's unique needs, giving you reliable, efficient and user-friendly system to enhance your business operations.

Contact us for more information on developing a custom business system for your needs.



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