OVERVIEW

General Business System/Manufacturing Business System (GBS/MBS) Release 1 is a combined general business and manufacturing software package from Wang Laboratories, Inc. Designed to run on the Wang 2200 series product line, GBS/MBS was developed by the Wang Applications Development Group. Distribution and installation are handled by independent software vendors familiar with GBS/MBS software.

Consistent with Wang's history of developing products to meet the needs of its users, GBS/MBS Release 1 is a powerful solution for the general business problems of the small- to medium-sized company, and the material control requirements of the small- to medium-sized manufacturing organization. The package consists of three basic groups.

1. General Business core
2. Manufacturing core
3. Optional Business modules

These three groups present two distinct paths for the manufacturing and non-manufacturing company, as shown by the system menu.

The General Business core — Order Entry/Processing, Invoicing & Receivables, Purchase Order, Material Control, and Sales History/Forecast — handle basic accounting and inventory requirements. These modules are integrated applications and must be purchased as a whole. The second group of general business modules — Accounts Payable/General Ledger, and Payroll — are optional accounting applications that can be purchased in addition to the general business core. Accounts Payable/General Ledger is a single module with two applications; Payroll is a stand-alone module. Together, these seven general business applications constitute a complete and efficient accounting control system.

---

WANG

Wang Laboratories, Inc.
One Industrial Avenue, Lowell, MA 01851, Tel. (617) 459-5000, TWX 710-343-6769, Telex 94-7421
The Manufacturing core group — Bill of Material, Production Scheduling, Production Control, and Production Forecast — can be added on to the General Business core. The Manufacturing core is an integrated application; it cannot be purchased separately and must be run in conjunction with the General Business core. The manufacturing modules give manufacturers a comprehensive and efficient manufacturing system and precise, up-to-the-second management information concerning each phase of the manufacturing process. When the optional business modules, AP/GL and Payroll, are added to the General Business and Manufacturing core groups, the GBS/MBS Release 1 system meets a full spectrum of accounting and material control requirements.

The complete GBS/MBS Release 1 package consists of seven general business modules, four manufacturing modules, basic utilities to perform both backup procedures and routine system maintenance functions, and a series of file reorganization programs.

**System Start-up**

System start-up is controlled by information gathered in the GBS/MBS Customer Survey and Configurator Guide and a special initialization utility program. The GBS/MBS Customer Survey and Configurator Guide is a questionnaire designed to obtain basic volume information about prospective GBS/MBS customers. The installing software vendor uses this data to calculate file storage and throughput requirements for each GBS/MBS installation.

The data collected in the GBS/MBS Customer Survey and Configurator Guide is input to a special utility program that initializes all files in the GBS/MBS system. This utility program is easy to use; all configuration information is input with the aid of clear, simple prompts. The initialization utility may be run more than once (for establishing multiple companies) and previously initialized files may be bypassed. When used in combination with the GBS/MBS Customer Survey and Configurator Guide, the initialization program is an efficient, easy-to-use vehicle for installing the GBS/MBS system.

GBS/MBS data entry programs assist the user in the data entry process by supplying extensive verification prompts, edit routines, and other data entry aids before accepting information.

**File Maintenance**

Initial creation and ongoing file maintenance is accomplished through GBS/MBS maintenance programs that add, change, or delete records. All GBS/MBS maintenance programs utilize a common skeletal logic. This makes program maintenance easier, and provides users with a model they should decide to add their own maintenance programs. All maintenance activity is captured as "before" and "after" images in the Maintenance audit file.

**File Inquiry**

GBS/MBS provides a series of Display/Print programs for inspecting information in the various data files through screen display and/or hard-copy output. These programs also utilize common skeletal logic.

**Audit Trail Capabilities**

There are three audit files in the GBS/MBS system: Maintenance audit file, Transaction audit file, and Inventory Transaction audit file. The Maintenance audit file records a "before" and "after" image of each maintenance transaction in the system. The Transaction audit file records a detail record of each GBS/MBS transaction. The Inventory transaction file captures a detail record of any GBS/MBS transaction affecting the on-hand balances in the Inventory file. Taken together, these files provide a comprehensive audit trail capability.

**File Reorganization**

GBS/MBS provides reorganization programs for each Key File Access Method (KFAM) file in the system. These programs purge the files of all inactive or deleted records, compress the file to make room for the creation of new records, and inform the operator of newly available space in the file.

**APPLICATIONS**

**General Business Core**

The General Business core consists of five modules: Order Entry/Processing, Invoicing and Receivables, Purchase Order, Material Control, and Sales History/Forecast. These are integrated applications and cannot be purchased separately.

- **Order Entry/Processing** — This module processes customer orders and generates the necessary paperwork (such as order and shipping registers, and shipping papers) for subsequent shipping and invoicing activity. This module updates the inventory status of items involved in order processing as the orders are created; completed, verified orders update the Accounts Receivable Open Item file.

  The system maintains Bill To addresses and up to 380 different Ship To addresses. The order entry screens display standard terms and tax tables as the orders are entered. Operators can use the standard rates or temporarily modify them for individual orders; the rates can be permanently modified by the installing software vendor. Shipping papers are printed in batch or individual mode after order entry is complete.

- **Invoicing and Receivables** — The GBS/MBS Release 1 Invoicing and Accounts Receivable (A/R) module processes and posts invoices and accepts cash receipts; ages the A/R Open Item file and calculates service charges; prints Aged Trial Balances, A/R statements and credit
reports; and purges the A/R Open Item file of deleted items. The system also provides maintenance programs for the customer and salesmen files and display/print programs for the customer, salesmen, and A/R Open Item files. The A/R module allows both open item and balance forward processing. Invoices may be posted in batch from the Order Entry system, or entered directly to the A/R system through the Enter Invoices program. Enter Invoices can produce debit and credit memos and credit invoices. Product information for an invoice line item is automatically obtained from the Inventory file.

Cash receipts posted to the A/R Open Item file may be distributed to one or more invoices. Month-end procedures delete fully paid invoices from the A/R Open Item file and generate various Invoicing and A/R reports.

- **Purchase Order** — This module facilitates order tracking and expediting for critical materials by reflecting estimated delivery times, which, in turn, provides a means of generating time-phased availability information. Operators can enter, modify, delete, and inquire about purchase orders; monitor the receipt of goods through quality control; generate open commitment reports on scheduled deliveries; and determine where orders originated. The Purchase Order module serves as a central source for tracking purchasing and receiving activities and for providing management with timely information on all phases of the purchasing cycle.

- **Material Control** — This module performs standard inventory functions such as inventory maintenance, transaction entry, stock status, and ABC analysis (classification of inventory items in decreasing order of annual dollar volume). The module also prints physical inventory sheets. In addition to these functions, the Material Control module maintains controls, and reports upon the current status of balances in the Inventory master file. The module also automatically analyzes inventory items in order to make recommendations concerning inventory control and reorder strategies based on order points, lead times, and projected availability.

A Supply/Demand file serves as a chronological ordering of discrete supply and demand relationships, and is the basis for a series of reports analyzing the material requirements of each inventory item. These reports also give reorder advice to groups such as the manufacturing planning department or the purchasing group. GBS/MBS uses an average cost system that maintains standard and last costs.

- **Sales History/Forecast** — This module captures sales history data from the Inventory master file for a specified period of time. This information is then used to forecast anticipated product demand. The mathematical derivative of this forecast allows a percentage increase or decrease by product group for variable periods or creates a forecast from a weighted average formula based on actual or previously forecasted "buckets." The Sales History/Forecast file maintains actual monthly history for three prior years. The file also maintains monthly totals for original, previous, and revised forecasts. A series of reports may be generated reflecting the variance between original forecast, the revised forecast, and the actual history.

### Optional Business Modules

There are two optional business modules: Accounts Payable/General Ledger, and Payroll.

One or both of these applications may be purchased as add-on modules to the General Business core.

- **Accounts Payable/General Ledger** — The GBS/MBS Release 1 Accounts Payable/General Ledger (AP/GL) module performs several major tasks in the accounting cycle. The A/P subsystem provides programs to create A/P transactions, print cash requirements reports, select items for payment, print A/P checks and an A/P check register, and purge paid items from the A/P Open Item file. The system also offers a Distribution report to monitor journal entries distributed from A/P to the General Ledger module.

The G/L subsystem provides programs to enter and post journal entries to the Chart of Accounts file. The system generates standard G/L reports including Trial Balance, Income Statement, Balance Sheet, and Budget and Schedule reports. A Clear Files program offers six reset options: End of Month, End of Fiscal Year, Clear Budget Figures, Clear Vendor Master File, End of Calendar Year, and Clear Standard Journal Entries.

- **Payroll** — This module is a stand-alone application that accumulates the data necessary to perform payroll operations for hourly, hourly-exempt, and salaried employees. Each employee record stored in the Employee file has capacity for 15 earning and deduction types and 10 tax types. Automatic system calculations are based on the consultant-modifiable algorithm assigned to each, and on individual details such as employee marital status, pay type, and salary/rate. Eight standard pay cycles are set up in the Control file: weekly, bi-weekly, 10th and 20th, 15th, end of month, quarterly, yearly, and vacation. Transactions can also be processed between cycles; a program is provided to manually adjust totals when handwritten transactions
have occurred and not been recorded during a standard pay period. Vacation pay is handled by a special feature that combines vacation and regular pay without distorting tax amounts. GBS/MBS Release 1 Payroll offers three payment methods: hourly, hourly-exempt, and salaried. Cash and check payments are standard, as is a Direct Deposit option. Memos to accompany payment are produced for distribution to employees and/or their banks. Check registers, bank deposit lists, and cash denomination lists supply the employer with a hard-copy reference of totals paid in each category.

**Manufacturing Core**

The Manufacturing core consists of four modules: Bill of Material, Production Scheduling, Production Control, and Production Forecast. These applications are integrated and must be purchased as a whole. Also, the Manufacturing core must be run in conjunction with the General Business core.

- **Bill of Material** — The GBS/MBS Bill of Material (BOM) module meets a set of functional requirements for the manufacturing process: the ability to create, store, and maintain parent-component relationships through a bill of material lists; a comprehensive reporting capability including single-level bill of material, single-level where-used listing, multi-level bill of material, and gross requirements with netting; the ability to update low-level code status; and a method to dynamically implement engineering change orders to the bill of material via effectiveness dates.

- **Production Scheduling** — This module controls the operation of the Production Plan Schedule, which is a collection of proposed manufacturing work orders. These orders are identified by date and quantity, and are maintained by user-generated transactions establishing quantities and completion dates. The orders may be specified as either planned (no component reservation takes place) or firm (components are reserved). The transactions are treated as additions, changes, or deletions in quantity for a specified date.

- **Production Control** — This module supplies the production shop with a means of creating and maintaining released work orders and monitoring their status. Operators can create work orders by releasing orders from the Production Plan file (orders proposed by production scheduling), or on demand. Both procedures result in an exploded assembly bill of material that is used to determine component and quantity requirements, and to calculate scrap factors and total assembly shrinkage. The system then allocates the available components, creates a work order, and generates a pick slip. The module provides a production control capability based upon chronological sequence by due date of all orders currently on the shop floor, as well as anticipated orders based on start date. The Production Control module includes a job costing capability to assist manufacturers in tracking the cost of jobs by showing prior work-in-process amounts, current open, current closed, and total work in process figures. The current job cost activity is accumulated by combining labor hours with labor costs, material costs, and overhead costs.

- **Production Forecast** — This module provides a means of calculating time-phased net requirements by exploding demand through a bill of material, and netting each assembly and subassembly against available inventory. The module has the ability to simulate the effect of a new Demand Profile, developed from actual backlog and/or sales forecast figures, and can create a variance report by comparing spare parts demand against the existing plan. This analysis alerts the planner if changes are required in the existing production schedule.

**UPGRADING FROM GBS RELEASE 2**

The entire GBS/MBS Release 1 package can be upgraded from Wang's GBS Release 2 software package. GBS/MBS Release 1 provides a series of convenient programs to convert GBS Release 2 files to the format required by GBS/MBS Release 1.

<table>
<thead>
<tr>
<th>PACKAGE NUMBERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>GBS/MBS Release 1 General Business core — 195-2188-3</td>
</tr>
<tr>
<td>GBS/MBS Release 1 Manufacturing core — 195-2189-3</td>
</tr>
<tr>
<td>GBS/MBS Release 1 AP/GL — 195-2191-3</td>
</tr>
<tr>
<td>GBS/MBS Release 1 Payroll — 195-2190-3</td>
</tr>
</tbody>
</table>

The materials contained herein are summary in nature, intended for general information only, and subject to change. Details and specifications regarding the use and operation of Wang equipment and software can be found in the appropriate technical manuals, available through local sales offices.
## International Representatives

- Argentina
- Bahamas
- Bahrain
- Bolivia
- Botswana
- Brazil
- Canary Islands
- Chile
- Colombia
- Costa Rica
- Cyprus
- Denmark
- Dominican Republic
- Ecuador
- Egypt
- El Salvador
- Finland
- Ghana
- Greece
- Guam
- Guatemala
- Haiti
- Honduras
- Iceland
- India
- Indonesia
- Israel
- Ivory Coast
- Japan
- Jordan
- Kenya
- Korea
- Kuwait
- Lebanon
- Liberia
- Malaysia
- Malta
- Mexico
- Morocco
- New Guinea
- Nicaragua
- Nigeria
- Norway
- Paraguay
- Peru
- Philippines
- Portugal
- Qatar
- Saudi Arabia
- Scotland
- Senegal
- South Africa
- Spain
- Sri Lanka
- Sudan
- Tasmania
- Thailand
- Turkey
- United Arab Emirates
- Uruguay
- Venezuela
- Zimbabwe

## United States

- Alabama: Birmingham, Mobile
- Alaska: Anchorage, Juneau
- Arizona: Phoenix, Tucson
- California: Anaheim, Burlingame, Culver City, Emeryville, Fountain Valley, Fresno, Los Angeles, Sacramento, San Diego, San Francisco, Santa Clara, Ventura
- Colorado: Colorado Springs, Englewood
- Connecticut: New Haven, Stamford, Wethersfield
- District of Columbia: Washington
- Florida: Coral Gables, Hialeah, Hollywood, Jacksonville, Miami, Orlando, Sarasota, Tampa
- Georgia: Atlanta, Savannah, Hawaii, Honolulu, Macon
- Idaho: Boise, Idaho Falls
- Illinois: Arlington Heights, Chicago, Morton
- Indiana: Fort Wayne
- Iowa: Ankeny, Coralville, Des Moines, Grimes, Iowa City, Waterloo
- Kansas: Overland Park, Wichita
- Kentucky: Louisville
- Louisiana: Baton Rouge
- Maine: Portland
- Maryland: Baltimore
- Massachusetts: Boston, Cambridge, Waltham
- Michigan: Grand Rapids
- Minnesota: Anoka, Chisago City, Cloquet, Duluth, Faribault, Forest Lake, Minneapolis, Owatonna
- Missouri: Creve Coeur, St. Louis
- Nebraska: Omaha
- Nevada: Las Vegas
- New Hampshire: Manchester
- New Jersey: Bloomfield, Clifton, Edgewater, Hackettstown, Jersey City, Lakewood, Lawrenceville
- New Mexico: Albuquerque, Santa Fe
- New York: Albany, Buffalo, New York, Rochester
- North Carolina: Charlotte, Greensboro, Raleigh
- Ohio: Akron, Cincinnati, Cleveland, Columbus, Dayton
- Oklahoma: Oklahoma City, Tulsa
- Oregon: Eugene
- Pennsylvania: Allentown, Erie, Harrisburg, Philadelphia, Pittsburgh, State College
- Rhode Island: Providence
- South Carolina: Charleston
- South Dakota: Sioux Falls
- Tennessee: Chattanooga, Knoxville
- Texas: Austin, El Paso, Houston
- Utah: Salt Lake City
- Vermont: Burlington
- Virginia: Newport News, Norfolk, Richmond
- Washington: Seattle
- Wisconsin: Appleton, Green Bay
- Wyoming: Cheyenne,

## International Offices

- **Australia**: Wang Computer Pty., Ltd., Adelaide, S.A.
- **Brazil**: Wang Computer Ltd., Sao Paulo
- **Canada**: Wang Canada Ltd., Burlington, Ontario
- **China**: Wang Industrial Co., Ltd., Beijing
- **France**: Wang France S.A.R.L., Paris
- **Germany**: Wang Deutschland, GmbH, Berlin
- **Japan**: Wang Computer Ltd., Tokyo
- **South Korea**: Seoul

Wang Laboratories reserves the right to change specifications without prior notice.

This document was set on a Wang typesetter.