Chapter 3: Microsoft Dynamics GP tables

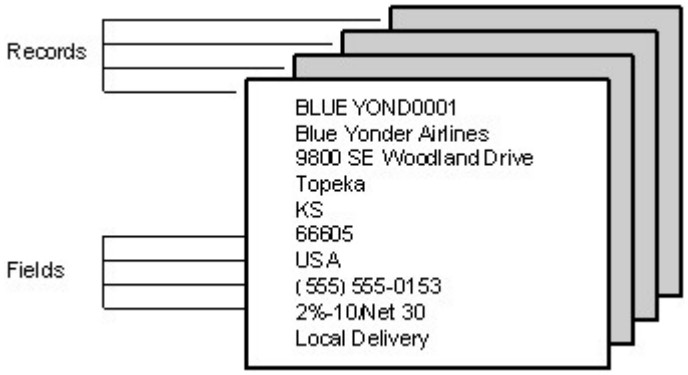
Review the following information about Microsoft Dynamics GP tables before attempting to use table maintenance procedures. This information will familiarize you with the basics of data storage in Microsoft Dynamics GP. Understanding the basic concepts associated with Microsoft Dynamics GP tables will give you better insight into how data is stored and how it flows through Microsoft Dynamics GP.

The tables information contains the following sections:

How records are stored in Microsoft Dynamics GP tables

As you enter transactions, accounts, and customer information in Microsoft Dynamics GP, you'll make entries or selections for many individual fields. These fields represent the smallest unit of information stored by Microsoft Dynamics GP. All the fields that describe a transaction, account, or customer make up a **record**. Similar records are stored together in a **table**.

For example, assume you have a new customer, Blue Yonder Airlines. You'll enter a customer ID, the company name, the city where the company is located, the phone number, and other facts about the company and your business relationship. Each of these facts is entered in a field, and together these fields make up the Blue Yonder Airlines customer record. All your customer records are stored together in a table group called the Receivables Customer Master Files. If you were entering a General Ledger transaction, that information would be stored in the Transaction Work table.

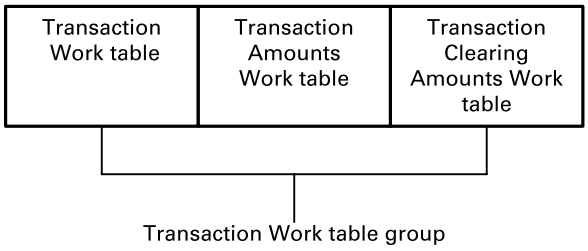


Just as windows you use to make entries (input) are linked to a particular table, the information displayed on reports and documents you'll print (output) is drawn from specific tables.

Table groups and tables

Tables are the basis of Microsoft Dynamics GP; they contain your data. Typically, two or more tables that are used to store related information are combined to make up a table group, also called a logical table.

For example, the General Ledger Transaction Work table is a table group, made up of four tables: Transaction Work, Transaction Amounts Work, Transaction Clearing Amounts Work, and Audit Trail Code Temporary. General information about each transaction, such as the audit trail code and date is stored in the Transaction Work table, and transaction amounts are stored in the Transaction Amounts Work or Transaction Clearing Amounts Work table, depending on whether you've entered a standard transaction or a clearing transaction.



Note that the Transaction Work table group contains a Transaction Work table. Table groups typically include a table with the same name. In some cases, this may be the only table in the table group. In System Manager, for example, almost every table group contains only one table.

Table names

Each Microsoft Dynamics GP table has three names: a technical name, a display name, and a physical name. The **technical name** is used by the software and will appear instead of a display name in some Microsoft Dynamics GP alert messages. The **physical name** is the name that will appear for the table when you view it using Microsoft SQL Server Management Studio. The **display name** is the name that will appear in most alert messages and is the most commonly used name for a given table.

You can review the physical, technical, and display names of each table by choosing Microsoft Dynamics GP menu >> Tools >> Resource Descriptions >> Tables to display the Table Descriptions window. Refer to your Resource Description online documentation for detailed steps that can help you view technical table and field information using the resource description windows.

Tables in the Microsoft Dynamics GP system are divided into different categories based on how they're used by Microsoft Dynamics GP and the information each stores. The purpose of each table can be determined by its name. Technical table names typically are composed of a two-character module abbreviation (such as GL for General Ledger), followed by a descriptive term for the main contents of the table, plus a 3- or 4-character main table type abbreviation (such as HIST for a history table). When appropriate, a subtable type abbreviation or description is used to further define the contents of the table.

The following describes of some of the naming conventions used in the Microsoft Dynamics GP system.

Main table type	Physical name abbreviation	Technical name abbreviation
Master	000 – 099	MSTR
Work	100 – 199	WORK
Open	200 – 299	OPEN
History	300 – 399	HIST
Setup	400 – 499	SETP
Temp	500 – 599	TEMP
Relation	600 – 699	REL
Report Options	700 – 799	ROPT

The following table shows examples of table names in the Microsoft Dynamics GP system.

Main table type	Physical name example	Technical name example
Master	GL00100	GL_Account_MSTR
Work	GL10000	GL_TRX_HDR_WORK
Open	GL20000	GL_YTD_TRX_OPEN
History	GL30001	GL_Account_SUM_ HIST
Setup	SY40300	SY_Class_Normal_SETP
Temp	GL50900	GL_Year_End_Closing_TEMP
Relation	SY60100	SY_User_Company_Access_REL
Report Options	SY70200	SY_Group_Names_ROPT

Main table types

Most of the information in Microsoft Dynamics GP is stored in one of the following types of tables. Knowing which type of table contains each type of information will help you find the data you need.

Setup tables These tables contain all the default settings and module options you've specified in the setup windows for each series.

Master tables These tables contain all the permanent data about your business, such as information about accounts, vendors, customers, and items.

Work tables Work tables contain unposted batches of transactions entered using windows that can be opened using the Transactions menu on the tool bar. These transactions are temporary and can be changed or deleted until they are posted to an open table.

Open tables Depending on the module, these tables may contain posted transactions for the open year. For example, the open tables in General Ledger contain posted transactions for any open year while the open tables in Payables Management contain unpaid posted transactions. How information in the open tables is moved to the history tables depends on the module as well. Transactions are moved to history when an open year is closed in General Ledger or the transactions are fully applied in Payables Management.

History tables These tables contain paid transactions, or transactions from a previous year.

Subtable types

Subtable types are used to further define the main table types. When used in conjunction with one of the main table type abbreviations, a subtable type indicates the relationship a table has with another table in its table group. The subtable type abbreviation will always appear before the main type abbreviation and is used in instances where several tables are grouped to form a table group. For instance, the General Ledger Transaction Work table group is made up of three work tables, but each one has a specific function that's indicated by its subtable type:

Table group	Tables
Transaction Work table	Transaction Clearing Amounts Work GL_TRX_**Clearing**_WORK
	Transaction Work GL_TRX_**HDR**_WORK
	Transaction Amounts Work GL_TRX_**LINE**_WORK

The following table lists some of the more common subtable types used for tables. In many instances, a descriptive term is used rather than an abbreviation, such as "Clearing" for the GL_TRX_Clearing_WORK table:

Subtable type	Abbreviation
Table Header	FHDR
Batch Header	BHDR
Serial Number	SERL
Header	HDR
Line Item	LINE
Tax	HTAX
Line Tax	LTAX
Address	ADDR

Use the help to learn more about the type of table information that's available in the resource description windows. Then follow the step-by-step instructions in the help to find the technical table information you need.

Passive record locking

There are a few instances when a single person must have exclusive access to a particular data table, or collection of similar records. Typically this is true only if the individual is performing a table maintenance procedure, such as clearing data.

Microsoft Dynamics GP manages records using optimistic concurrency control or passive record locking. Optimistic concurrency control enables many people to work with the same records—customer accounts, for example—without competing for records. Coworkers update records one field at a time, so two or more people can change a record simultaneously if they're changing different fields. However, if they are changing the same field, the second person to save the record receives a message saying that changes have been made to the record since he or she accessed it. When the second person chooses OK in response to the alert message, the window is updated with the first person's changes.

Effects of denying table access

Some types of information may be available on several reports. For example, the information in the Unit Accounts List also is available in the Accounts List. If you want to restrict access to certain types of information, be sure to restrict access to all of the reports that include that information.

Reports

If you set up security for a table, reports that use that table for printing will be affected by the security option. For example, if you are denied access to the Account Master table, you can still use financial cards and post transactions, but a message indicating a table security error will appear if you attempt to print a report using the Account Master table. If you don't have access to a table, you won't be able to use other applications to write data to that table.

SmartList

Removing access to tables may mean some SmartList objects won't be displayed. Multiple SmartList objects may be affected by removing access to a single logical table. In some cases, multiple logical tables affect a SmartList object and removing access to any one of the logical tables will remove access to the object.

If the SmartList window is already open and access is removed from a table, the changes will not appear until the SmartList window is closed and reopened.