

Data Migration and Sage MAS 500 ERP

White Paper

Sage Software

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Introduction

A fundamental change has taken place in the software industry that underscores the importance of data migration tools. In the past, many new system sales were to companies who had never had an enterprise-wide system. Now, almost every company buying a business management software package is replacing a legacy system. The data in these legacy systems represent years, if not decades, of irreplaceable sales, customer, employee, business partner, or other type of mission-critical information. A solid data migration strategy will ensure that the right data is transferred to the new system. Only then can managers make the informed decisions they need to thrive in a competitive market.

Determining What Data to Convert

One of the most daunting tasks of any system conversion process is to determine which data to transfer from the legacy system to the new one. Yet planning is the most critical step of all system implementation tasks; for data migration, proper planning will determine what proprietary information will be available in the new application. For many businesses, this can be thousands of records of information. Because of the importance as well as the large scale of this task, it is imperative to begin planning the data conversion process early in the implementation cycle. It is helpful to first classify the data, quantify how much data is there, determine the quality of the data, and then decide what is mission-critical to transfer.

There are many ways to categorize data, but at its basic level data falls into two groups: master and transactional data. Master data is generally static information that is repeatedly used to create transactions in a system; examples include general ledger account numbers, customer or vendor information, or inventory items. In contrast, transactional data represents information that is unique for each transaction created in the system; examples of commonly identified transactional data include general ledger postings, invoices, payments, or orders. Transactional data can further be categorized by open, or current items, as well as historical data. Historical information usually represents a completed transaction, such as a paid invoice. By determining if data is master or transactional, the process for converting data can be better defined. Master data is usually converted before transactions, as transactions will require the use of master data records. As part of the conversion planning process, it may be determined that large volumes of data can be transferred early in the cycle. Master and historical data can be loaded ahead of time, for example, reducing the burden of data conversion at cutover time by just requiring open transactional data to be loaded into the system. For more information on implementation and data conversion process planning, please see the Sage MAS 500 ERP Implementation Planning Guide.

It is important to understand every field of legacy data and its function in the legacy system. In addition, it is also imperative to understand more about the data that is targeted for conversion. Both the quantity and quality of data in the legacy systems need to be determined. In many cases, such as customer master records, it may at first seem appropriate to bring over all records. However, after examining the data, it may be

determined that there are a large number of customers who have not been active for many years. In this example, management may make a policy determination to not convert customers who only made one purchase and have not been active in three years. Quality of the data is another important factor; it is not uncommon to find missing fields in legacy data which are required in the new system. If payment terms, for example, are missing from a large group of customers, management will have to determine if a credit manager should investigate each case or if every record missing the terms should be automatically assigned a value of net 30 days.

The planning and analysis done before data is converted will ensure better quality of information as well as access to information in the new system. By cleaning legacy data before it is entered, the new system will provide more accurate analysis. Eliminating “garbage data” such as inactive customers will enable a business to focus its efforts where it can make the most return on its investment. Furthermore, all systems are affected to some extent by the amount of data in the system, so restricting the data conversion to mission-critical information will ensure optimal system and database performance. This is accomplished by removing unwanted data before it is inserted into Sage MAS 500 software.

Sage MAS 500 Data Setup Methods

When implementing an enterprise-class application, customers may want to use a variety of methods to set up system data, depending on the type of data that is in the system. Sage MAS 500 software provides this flexibility by providing maintenance setup tasks as separate steps in the Assisted Company Setup (ACS) feature. ACS accommodates a variety of data-entry, copy, import, or migration methods for each data step. ACS also ensures that data is set up in the correct sequence in case there are any dependencies between data sets. For example, before customers are created in the system, Terms Codes should be defined.

ACS shows the purpose and use of each data element to aid in mapping from the correct legacy field. There are also tips as well as references to additional help materials for each step.

To aid in the project management of the implementation, ACS provides a Microsoft Outlook integration that creates each setup step as an Outlook task for Sage MAS 500 users. Within Sage MAS 500 software, each step can also be assigned to a user and its status can be changed to reflect overall project status on standard system reports.

In addition to the standard data entry method that leverages the Windows user interface to input individual records, there are several ways to enter data into the Sage MAS 500 system:

- Data Migrator – Uses Application Programmatic Interfaces (APIs) to enter spreadsheet data. Provides additional tools when upgrading from sister Sage Software products.
- DataPorter – Imports small data sets from a spreadsheet and validates in real-time.
- Copy – Copies data already created.
- Import – Uses APIs to enter data from a file.

- Migrate – Allows customers upgrading from sister Sage Software products to automatically set-up data.
- Create – Automatically generates certain data records.

Data Migrator

The Data Migrator module is one of the most valuable system tools available for migrating data from a legacy system into the Sage MAS 500 system. Data Migrator allows you to use spreadsheets to enter medium to large amounts of data into the system using APIs so that data is both rapidly input and validated as it enters. Any error records are noted and saved, and can be easily modified and re-run.

When migrating data from a sister product such as Sage MAS 90 or Sage MAS 200 ERP, Data Migrator automatically extracts the data from the old system, translates it to Sage MAS 500 standards, and inserts it into the Sage MAS 500 database. Additional help is provided to understand the differences between the old system and Sage MAS 500 system for each step.

Data Migrator has other advantages as a data import tool. The spreadsheet can be prepared ahead of time, which greatly helps in the planning phase. As it is determined which data to load, spreadsheets can be easily circulated within an organization by email for cleanup and verification. This also facilitates group edits to the spreadsheet.

Data Migrator is available for most major entities in the system, including:

DataPorter

The DataPorter module reduces conversion time by leveraging Microsoft Excel to load data in real-time. Although DataPorter is often used during implementation of a new Sage MAS 500 system, it can also be used to input data on an ongoing basis.

DataPorter can be invoked from almost any standard data entry screen within the Sage MAS 500 product to input data that would normally be entered field-by-field on that screen. When DataPorter is invoked, it creates an Excel spreadsheet that maps the input fields from the screen as a header row in the spreadsheet. Data can then be easily pasted from a legacy data source into the DataPorter spreadsheet. Once this is completed, the user simply clicks a button to proceed with the data import. As data is automatically entered into the Sage MAS 500 system, any errors are displayed on-screen for immediate correction unless the user chooses to bypass the record. All errors and bypassed records are logged on the spreadsheet, allowing the user to correct the errors on the spreadsheet and then to re-run and load just the corrected records.

DataPorter does not take a great degree of technical skill. This allows a company's power users, who know the data best, to run their own imports without relying on costly programming help.

DataPorter is supported in most screens, including:

- Maintain Non-Inventory Items
- Set Up Postal Codes
- Maintain Natural Accounts
- Maintain Account Segments
- Maintain Accounts
- Maintain Allocations
- Maintain Recurring Transactions
- Enter Journal Transactions
- Maintain Vendors
- Maintain Recurring Vouchers
- Enter Vouchers
- Maintain Customers
- Maintain Salespersons
- Maintain Recurring Invoices
- Enter Invoices
- Maintain Items
- Maintain Item Classes
- Enter Purchase Orders
- Enter Quotes
- Enter Sales Orders
- Enter Inventory Transactions
- Physical Inventory – Enter Counts

Import Utilities

The use of Import Utilities is widespread throughout the Sage MAS 500 product. These utilities allow specific types of data to be entered from an input file directly into the database. Import Utilities validate the data as it is entered by leveraging the Application Programming Interfaces (APIs) that are prevalent in the application. Import Utilities process large volumes of data very quickly; so displaying error messages real-time is not a desired option. Instead, these utilities provide error logs for any records that fail to import.

Import Utilities have several advantages. As stated, large volumes of data can be imported very rapidly, which is crucial for certain types of data transfers which typically have a lot of records. As they are widespread throughout the system, most companies will find that their mission-critical data can be transferred using the utilities. While the interface is not as simple as an Excel spreadsheet, import files are still set up in standard formats and most power users will be able to use this import process, again without expensive programming help. However, programmers do leverage APIs to routinely pass data to the Sage MAS 500 system when building integrations and custom extensions.

A few common Import Utilities include:

- General ledger accounts
- General ledger transactions
- Company consolidations data
- Vendor data
- Accounts payable vouchers
- Vendor purchase history
- Customers
- Invoices
- Customer sales history
- Inventory items
- Inventory transactions
- Bank reconciliations

Copy Utilities

Sage MAS 500 software supports multiple companies within one system or database. To accommodate a wide range of business models, most data elements can be uniquely modified by each company defined in the Sage MAS 500 product. However, many businesses share certain types of data across some companies. For example, multiple companies may share a centralized purchasing department which has an approved vendor list. To facilitate this model, many of the data maintenance steps can be completed by copying a data set from an existing company. In the previous example, vendors can be imported in the initial company through the Import or DataPorter utility, and then be copied to other companies created in the same Sage MAS 500 system to maintain data integrity across entities.

The system also gracefully handles common data migration issues by allowing users to manage duplicate records and invalid general ledger accounts as well as reference codes.

Create Utilities

There are instances where Sage MAS 500 software can facilitate the creation of new records. One example is the creation of inventory, which is assigned to warehouses in the system. If generic item records are already defined, they can be extended to create inventory items with default sales, purchase, and inventory information.

Migrate Utilities

To facilitate the upgrade from our sister Sage Software products Sage MAS 90 and MAS 200 ERP, Sage MAS 500 software provides a data migration utility to automatically extract data from the Sage MAS 90 or MAS 200 database, convert it to Sage MAS 500 standards, and insert it into the Sage MAS 500 database.

Additional help instructions are available within ACS for migration tasks. These instructions explain the equivalent Sage MAS 90/MAS 200 task and any usability differences in upgrading to Sage MAS 500 software.

Comparison of Data Migration Utilities

Tool	Features
Data Migration Utilities	<ul style="list-style-type: none"> • Provides APIs to rapidly load spreadsheet data from any legacy system • Also extracts data from Sage MAS 90 software, converts it to Sage MAS 500 standards, inputs it to the Sage MAS 500 platform • Includes additional Sage MAS 90 help utilities to understand how data is mapped
DataPorter	<ul style="list-style-type: none"> • Imports small to medium-sized data sets • Used for data conversion or data entry • Does not require database knowledge • Does validation in real time • Users can be trained quickly
Data Import Utilities	<ul style="list-style-type: none"> • Imports all sizes of data sets • Used for data conversion only • Requires minimal database knowledge • Uses Application Programming Interfaces
Data Copy Utilities	<ul style="list-style-type: none"> • Requires first company to be set up • Used on any size data set • Used primarily for data conversion • Ideal where records are the same across companies
Data Creation Utilities	<ul style="list-style-type: none"> • System generates new records • Used during conversion or when company structure changes • Users assign default values

Conclusions

By following a planned approach to data conversion, customers can ensure that the data they are converting from their legacy system to Sage MAS 500 software will provide the information they need to make critical business decisions. By providing the right foundation of data into the new Sage MAS 500 system, this will also ensure a smooth operational transition for employees who need to access data.

Sage MAS 500 software provides several powerful import tools that are intuitive enough to be cost-effectively used by end users. Moreover, to provide maximum flexibility in the conversion process, each set of data may have several different data entry or conversion options. Depending on the type and volume of data, as well as any modifications to data or business processes, different migration methods can be used.

DataPorter's familiar spreadsheet interface is a useful tool for data conversion as well as for power users who prefer to enter large volumes data in a spreadsheet format. Import utilities provide the power to enter large volumes of data into the database. Both methods ensure that only validated data is entered, ensuring database integrity. In addition, Assisted Company Setup ensures that data is migrated in the correct order and provides available data migration options for each setup task in an easy to use Windows screen. In a few setup tasks, the system also helps you assign default data values to create new data records, such as creating inventory records from items. Finally, for those customers migrating from sister Sage Software products, Sage MAS 500 software provides a migration tool that automatically extracts, converts, and inserts the data so that customers can start using their new system quickly.