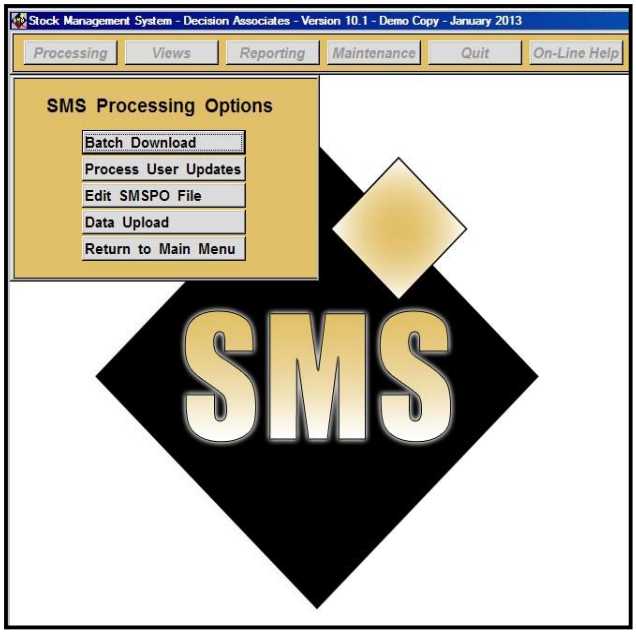
Functional Overview

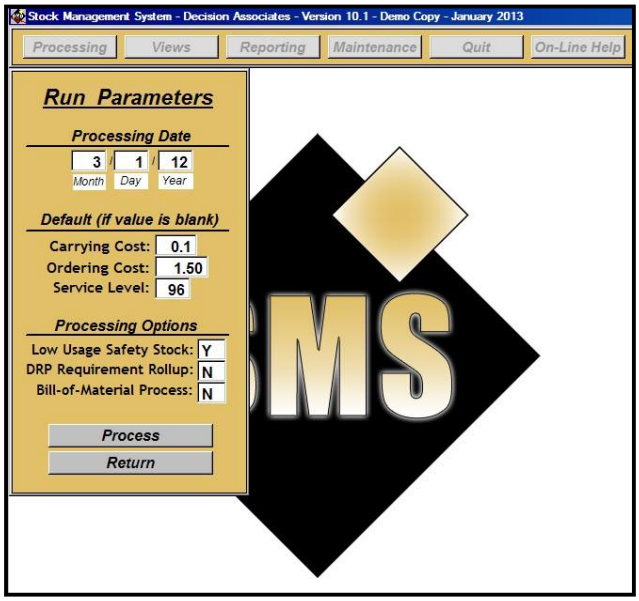
The Processing menu (below) contains specific choices for processing data. This is usually done on a weekly basis with a new data file loaded each week. This file (LOADOWN.DAT) is placed in a user specified directory and read by SMS to start each week. The exact location of the SMS directory depends on each implementation.

Each of these menu choices is designed to process a new "batch" of data (*Batch Download*) or to re-process data after user specific changes have been made. The *Batch Download* choice is typically used for a "once a week" process that loads current files, processes forecast and replenishment data, then splits all resulting calculations out on a network to all users. The *Data Upload* choice is typically used after all users have reviewed SMS suggested orders and have made changes as necessary using the *Edit SMSPO File* function. *Data Upload* automatically sends data to the host system (thus automating the ordering process).



Each of the choices invokes a *Run Parameters* Window which enables the user to set various processing options including the date the data was extracted (usually today's date). The *Batch Download* selection always synchronizes SMS with host system data (i.e., main-frame or host system). The *Run Parameters* window and the impact it has on processing is explained below.

Run Parameters Window



The options on the left allow the user to set controls and *Process* or *Return* to the previous menu. *Process* will begin calculating with the parameters in place as shown in the window. Typically the date is the only change made. This would be the date of the data extraction, rather than the current day's date. It is advised that the user process the downloaded data on the same day as the file is extracted.

The date field must be updated at the start of each week. Once this date is set, SMS run parameters will remain constant (usually until the next weekly *Batch Download*). Some copies of SMS can be set to automatically insert "today's date" into this field – thus eliminating user intervention for processing. Such configurations can be custom implemented for automatic processing (i.e., production overnight).

Processing
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To change a field, simply click on that specific field. The user can hit the ñEnterò key to tab to the next field if desired. The ñ*Default (if value is blank)"* section is only used if these fields are not provided on the *Batch Download* file from the host system.

Processing Options are set at implementation and indicate the type of use SMS will provide. The ñ*Bill-of-Material Process*ò is not usually used in a DRP Requirement Rollup operation, for example.

Run Parameters include:

1. Date — This is the date that the data has been extracted on. Usually this will be the same day, but for some applications, the date may have been last nightôs date. This does not represent todayôs date necessarily, but should always be the date of the most recent data download file.

2. Carrying Cost — This is the cost of carrying inventory and usually represents the cost of storage facilities, staff, utilities, etc. This is expressed as a percentage (i.e., 0.25 is 25%) and is applied across all items uniformly.

3. Ordering Cost — This is the cost of placing an order. It is used only if such a number has not been supplied by the host system. It is an approximation and usually reflects management strategy. This represents the cost of ordering (i.e., staff cost, computer charges, paper supplies, etc.) in comparison to the total number of orders placed. Shown in $$.

4. Service Level — This represents a service level target which is to be used for any item which has not had such a figure supplied on the file from the host system. Usually, each item already has a number. If so, it will be honored by SMS. If no number is present on the download, this default number will be supplied to help protect availability of that item.

5. Low Usage Safety Stock — This option enables the calculation of safety stock for items which have such low usage that they are not ñforecast-ableò. This safety stock is typically used in maintenance inventory processing and will actually determine a percentage of usage to be safety stock even though the forecast may be null. It can use failure statistics and ñnumber in serviceòdata (if available) to correctly set safety stock levels for critical items which must be available - but donôt often fail.

6. DRP Requirement Roll-up — This option enables the ñroll-upòof requirements from intermediate level warehouses. For example, a master warehouse may procure from a vendor for distribution directly from that master warehouseôs own location. It also may procure from a vendor for distribution to another sub-warehouse which, in turn, may distribute from that sub-warehouseôs own location. The specific hierarchy of ñrolling-upòis specified on each SMS record in the Source field. The impact of this option would be seen in higher requirements at the master warehouse and the intermediate locations which feed from it. This will have an impact on EOQ levels and ordering patterns from a vendor or supplier.

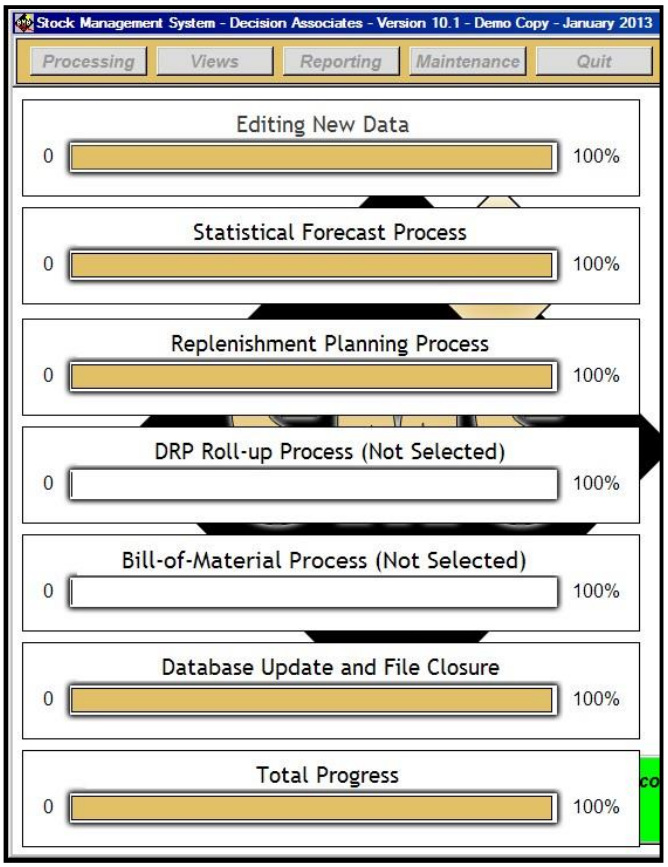
7. Bill-of-Material Process — This option enables an ñexplosionòof components which are triggered by the need for a parent item to be replenished. These components, in turn, may trigger an ñexplosionòof sub-components which need to be replenished to keep pace with the parent item. SMS enables up to 99 levels of explosion (i.e., 99 levels of components and sub-components).

Completion of modification to these fields will provide the user with a *Process* or *Return* choice. These either begin processing or return to the *SMS Desktop*.

Batch Download

To process SMS initially, select the first choice - ***Batch Download***. This will process a new file, verify data integrity (i.e., duplicates, missing fields, etc.), calculate forecasts, prepare replenishment plans and update screens, graphs and files. This choice is usually run once a week, but can be run daily.

When selected, this ***Batch Download*** choice will invoke the ***Run Parameters*** window described earlier. Always make sure the date is correct. This date should be the date the data was extracted from the host.



The ***Batch Download*** process is designed to simplify weekly processing for the SMS user. It also completes bill-of-material explosions and/or DRP roll-up relations as well - if specified.

Once processing is underway, the user will see ñProgress Barsòwhich display where SMS is in each calculation function as shown at left. In this example, DRP Roll-up was not selected. Also, Bill-of-Material was not selected either.

Behind the various processes which display on the screen, another process takes place. This is the splitting of data into various sub-files which are used by individual planners. Each individual copy of SMS is designed to select a specific userôs data. This individual copy has the power to process, modify, print and upload data. It is populated, however, with only a portion of the overall database of items. This means the individual user works more efficiently and processes much faster by working only with a sub-set of the database. This also prevents each planner from interfering with another planner when ordering.

Process User Updates

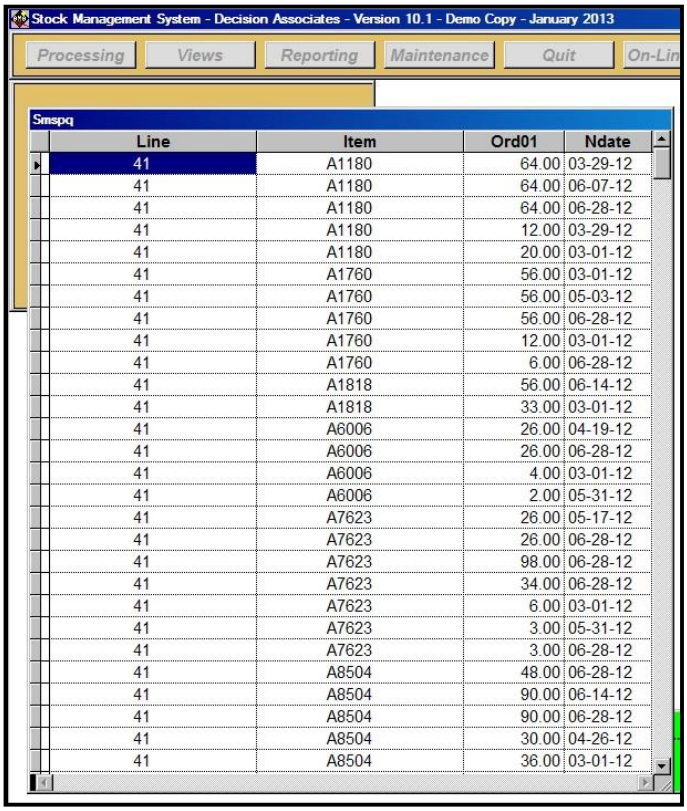
This choice simply re-runs the ***Batch Download*** function ï but without the need to synchronize SMS with the host data file. This makes the process faster and requires much less temporary file storage space. It is occasionally used in SMS processing, but can be useful to study the impact of global forecast changes (i.e., adjustments made by Location, Level 3, or Level 2). It uses the last file updated by the ***Batch Download*** process described above.

Be sure to run *Confirm Adjustments* (in *Maintenance – Data Maintenance* menus) when satisfied with the forecast adjustments made to SMS. Otherwise, these adjustments will be gone on the next download cycle.

This process uses the same ***Run Parameters*** window and shows the same ñProgress Barsòas above.

Edit SMSPO File

This choice allows the user to easily modify the orders suggested by SMS. This choice invokes a window much like a spreadsheet window which if familiar to most users. The user can change or delete orders ï or add some if desired. In short, this window allows the user to make the file into an ñapprovedòfile which has been changed and/or approved and is ready to upload back to the host system. This window is shown below:



Line	Item	Ord01	Ndate
41	A1180	64.00	03-29-12
41	A1180	64.00	06-07-12
41	A1180	64.00	06-28-12
41	A1180	12.00	03-29-12
41	A1180	20.00	03-01-12
41	A1760	56.00	03-01-12
41	A1760	56.00	05-03-12
41	A1760	56.00	06-28-12
41	A1760	12.00	03-01-12
41	A1760	6.00	06-28-12
41	A1818	56.00	06-14-12
41	A1818	33.00	03-01-12
41	A6006	26.00	04-19-12
41	A6006	26.00	06-28-12
41	A6006	4.00	03-01-12
41	A6006	2.00	05-31-12
41	A7623	26.00	05-17-12
41	A7623	26.00	06-28-12
41	A7623	98.00	06-28-12
41	A7623	34.00	06-28-12
41	A7623	6.00	03-01-12
41	A7623	3.00	05-31-12
41	A7623	3.00	06-28-12
41	A8504	48.00	06-28-12
41	A8504	90.00	06-14-12
41	A8504	90.00	06-28-12
41	A8504	30.00	04-26-12
41	A8504	36.00	03-01-12

For those users familiar with spreadsheet editing and control, the same functionality applies here. Simply hit the ñescòkey when done. The file is ready for *Data Upload*.

Data Upload

This button exists for each copy of SMS. If multiple planners each have a copy of SMS, then each upload file is sent back to the Stock Status System - as modified and approved by each individual planner. This is why SMS splits data among various users when initially processed.

The format of the standard *Data Upload* file is contained in Appendix B and can easily be modified for each client. However, the basic ordering information contained on the standard format is usually appropriate and rarely needs modification.

This does not mean that expediting does not go on outside SMS. It does! SMS is designed to make the bulk of a plannerôs ordering procedure fast, efficient and accurate. SMS has reviewed the need for new orders, the accuracy of safety stocks, the viability of EOQ and the possibility of transferring stock all in one process that takes only minutes.

The file created by this choice is usually the last link back to the host. However, when complete, the vast majority of ordering activity will have been automated. The planner can now take time to manage inventory - rather than spend time expediting and reacting to unplanned consumption.