

MAXLOAD PRO DATA IMPORT/EXPORT OVERVIEW

Reference: [Import Template](#)

TOPS Engineering Corporation's MaxLoad Pro software for Windows is capable of importing SKU, Order and other data through the use of ASCII comma delimited files. If the following outline is unclear or you have any additional questions, please contact TOPS Technical Support at (USA) 972-739-8677, (FAX) 972-739-9478, or email at tech@topseng.com.

Most programs and systems are capable of generating ASCII comma delimited files. If Microsoft Excel is used to generate them, save the file as a CSV file (Comma Separated Values). The resulting text file is readable by MaxLoad. A sample Excel v7.0 spreadsheet called IMPORT.XLS has been included with the software. It demonstrates a simple import of SKU data to populate the database and an import of an "order" for use as a MaxLoad Manifest. A full breakdown of most of MaxLoad's import can be found in this document. Both import documents (this IMPORT.DOC and IMPORT.XLS) are accessible through their Start Menu Shortcuts under "TOPS for Windows APPS". The Documents themselves can be found in the MaxLoad installation directory (defaults to C:\Program Files\TOPSAPPS\Max2Demo or Max2Pro).

To import this CSV file into MaxLoad, go to use the **Tools** Menu, select **Import** and then **Import (Generic)**.

Populating MaxLoad Pro's SKU database

Often, a normal import of a new user's SKU information into MaxLoad Pro goes as follows:

1. Export the SKU information (Names, Dims, and Weight) from his mainframe/database.
2. Load the data into Excel. Once in Excel, manipulate the table until your data fields line up with MaxLoad's import format.
3. Save the Excel spreadsheet as a CSV file.
4. Enter MaxLoad and select Tools, Import and then Import (Generic) to import the CSV file. Type in the exact name of the file as the Browse box limits the file list to only TXT files. If you want to remove the pre-existing SKU and Manifest databases from MaxLoad, import the file PURGEALL.TXT first. This file is in the directory above the default import directory. PURGEALL.TXT is also a good example of using the built-in import commands described in IMPORT.DOC.

Transferring Order information to MaxLoad Pro for Processing

The order placement system needs to generate an ASCII comma delimited file in the format described in this document. Normally an order must contain:

1. The standard Header information ([Version], [English], etc.)
2. One or more [Manifest] sections. A manifest is an item of work for MaxLoad. SKU's are attached to the manifest through the manifest's picklist, in an attempt to load them into a container. Many companies would refer to a manifest as an "order" or a "shipment" of orders.
3. One or more [PickList] sections. The picklist names the SKUs (with quantities) to be loaded onto which manifests.
4. One or more [ContainerList] sections. This optional section indicates what vehicles (containers) the manifest should attempt to load its SKUs onto. If this section is not included then no default vehicle will be assigned to the manifest and the user will have to manually select one before calculating.

This file is then imported into MaxLoad either using the Tools>Import menu or a command line parameter for automatic import. The imported file can contain import Commands that force the software execute additional command such as: deleting other manifests, exiting after import, rename the imported file, chaining to another import file, etc. See pages 3 and 4 for more details.

Exporting results from MaxLoad Pro

At this time, MaxLoad does not have a way of exporting the results of a Manifest calculation. That is, it does not have a means of exporting a list of items that actually ended up on the truck. MaxLoad’s build-in export features are currently focused on ensuring smooth upgrades. While it is possible to find out the results of a manifest calculation, it would require massive filtering to extract useful information from the resulting file. Contact TOPS for details on customizing the program for your company’s specific export needs.

P.S. As MaxLoad’s internal data structure is generated through DAO (3.5), it is possible to directly manipulate MaxLoad’s data (through Microsoft Access for instance). However, this manipulation should be limited to extracting information from the MaxLoad tables. When importing from ASCII MaxLoad fills in any fields that are missing or incomplete. It does not perform this error checking during regular operation.

MaxLoad Pro Import/Export Format

Any field that is left blank will be filled in during import using the system defaults (as if the user had been entering the information from the keyboard). Defaults are adjusted in the program by using the defaults tab of the corresponding item properties. In some cases it will necessary to right click on the label next to the appropriate field instead of the field itself. (i.e. if you want to change the default overhang on a pallet: go the define SKU menu item; choose create UL; right click on “Maximum Length Overhang”; select “properties”; then the defaults tab.)

Import and export functions are performed within MaxLoad using the Tools menu within the program. The following command line parameters facilitate automated import:

- Import= Imports the specified file on startup if it exists.
- View Starts the program in View only mode; the user will be unable to modify anything and may only view existing work.
- DBPath= Use the **MAXLOAD.MDB** in the specified path instead of the checking in the path indicated in the **MAXLOAD2.INI** file.
- Ini= Use the specified INI file instead of the default MAXLOAD2.INI file.
- User= Automatically login as the specified user.

User names, paths, and filenames that contain spaces or other delimiters should be “quoted.”

Import Command Entries

[Version]	Every MaxLoad Pro import/export file begins with the header [Version]. The next line denotes the MaxLoad Pro software version from which the data is being exported or being imported into. When creating an import file, this information is listed on the first two lines; otherwise, the software will assume this import file came from a 1.x release of MaxLoad and misinterpret the import format. If you want to mix usage of the simpler 1.x format and the more robust 2.x format, you may include multiple instances of [Version] in a single import.
[English]/ [Metric]	When exporting/importing, one of these two “flags” is included after the [Version] section to indicate the current default units in the software. This allows those

	settings that are “Global” to be interpreted correctly upon re-import. Without these flags, the software couldn’t determine the units of fields that are using global switch (as opposed to those that are explicitly English or Metric).
[Delete]	After import or before chaining, delete the imported file.
[Rename To]	After import or before chaining, rename this file to the name indicated on the next line. If both [Delete] and [Rename To] are indicated, [Delete] takes precedence.
[Chain To]	After importing the current file, import the file listed on the next line, deleting or renaming this file as previously specified.
[Clear SKU File]	Delete all SKU’s from the SKU database.
[Clear Truck MFT]	Delete all Truck Manifests for all users & their associated records.
[Clear Vehicle MFT]	Same as [Clear Truck MFT].
[Clear Pallet MFT]	Delete all Mixed Pallet Manifests for all users.
[Clear Tote MFT]	Not implemented.
[Clear Single MFT]	Delete all Single SKU Manifests for all users.
[Clear All MFT]	Delete all manifests for all the users.
[Exit]	After completion of import, exit the program.

Import Record Entries

[Annotate]	Not Documented. Describes text and graphic annotations to a manifest’s print preview.
[ContainerList]	This is an optional section and indicates what vehicles (containers) the manifest should attempt to load its SKUs into. If this section is not included then no default container is assigned to the manifest and the user has to manually select a container before calculating the manifest.
[Cutlist]	Not Documented. Used to list which items didn’t make it onto a manifest (if the manifest has been calculated)
[Defaults]	Not Documented. One defaultable control/field to a line.
[Fonts]	Not Documented. The fonts selected under “Tools Configuration Fonts”.
[Manifest]	Manifest even referred as “order” or “shipment” describes the type of container to be loaded, what loading patterns will be used. Use subsequent [PickList] records to define what SKU’s will be loaded.
[Messages]	Not Documented. Multi-lingual export of long system phrases.
[Pallet]	Descriptions of the pallets a SKU can be loaded onto.
[PickList]	The PickList section lists the SKUs to be loaded to a manifest. It includes manifest fields like - SKU quantities, priority, order #, whether to unitize it, etc.
[PlaceList]	Use by calculated loads to record the location of each loaded item in a container/pallet.
[SKU]	Each record describes a SKU and includes SKU type, SKU name, descriptions, dimensions, orientation preference, piece count and other related information.
[Stack]	A list of the current stack codes and their default states. Does not contain a complete description of the stack matrix.
[Tote]	Not implemented.
[UnitLoad]	Describes which pallet to use for a given Manifest, SKU, or Mixed Pallet. Also specifies what overhang, underhang, etc. to use instance.
[User] record	Individual user settings including, Name, Stack matrix path, and other settings found under the Configuration” menu.
[Vehicle]	Descriptions of the vehicles that may be loaded.
Units Data Field	Anytime a distance, weight, area, volume, or percent is exported it is

formatted/described using the Units Data Field format. (See the next section.)
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NOTE: On some of the string values below, a number can be found in parentheses. That number represents the maximum size of the field.

Units Data Field

The following information is the breakdown of the units field used by TOPS when exporting and importing. The following types of Units fields are used in MaxLoad Professional: Distance, Weight, Volume, Area, and Percent (English/Metric is ignored).

When a field is a numerical floating point value, such as a distance (inches) or weight (kilograms), it will be stored as a Units field. This includes all the formatting data required to display in either English or Metric and in the correct units (inches vs. Feet). Internally, the value is stored as a standardized English value. A Units field contains a number of sub-fields. The entire set is exported as a character string enclosed in quotes. The sub-fields are space-delimited inside this string.

"12 (in) G N N 0 0 2 3"									
Subfield:	1	2	3	4	5	6	7	8	9
Name:	value	units	english/metric	fractions	zeros	english convert	metric convert	#decimals	#decimals
Example:	12	(in)	G	N	N	0	0	2	3

Subfield Descriptions

- Value in display format. This value will be translated to its internal English representation upon import. Fields 3, 6, and 7 are used to convert this number to its internal English representation. If this is the only field entered for a unit, it need not be in quotes. In that case, all other fields will be imported as the current system defaults. When MaxLoad exports this value from the program it will adhere to all the display parameters that were set, this means that exporting and re-importing could lose a few significant digits or end up rounded to the nearest 64th.
- Textual representation of the type of units, (in), (gr), (lbs), etc. This field is currently ignored by the import parser and may be any value. It is exported to ease the reading of ASCII file.
- English/Metric state of these units. Instructs the program to convert using sub-field 6 or 7.
 - E = English, convert using sub-field 6
 - M = Metric, convert using sub-field 7
 - G = Global, look up the global state of the program. During a normal export the current global state is exported so that the appropriate state can be "assumed" on re-import. See the [English] and [Metric] sections.
- Y = Display with fractional parts as fractions rounded to the nearest 1/64th and reduced.
N = Show as Decimals using the appropriate number of decimal places
- Y = Show trailing zeros after the decimal point.
N = Truncate trailing zeros after the decimal.

- 6) An index into the English multiplier table. The multiplier is used to convert the internal value to and from the displayed value. Each type of Units field has its own multiplier tables.
- 7) An index into the Metric multiplier table
- 8) The maximum number of digits after the decimal to show when displayed in English.
- 9) The maximum number of digits after the decimal to show when displayed in Metric.

All sub-fields except sub-field 1 are optional when creating your own import file. However, you may not skip one and enter the next. This would confuse the parser. For example, you may enter 12, “12”, “12 (in) G”, or “12 (in) G Y N 0 0”, but not “12 (in) G 0 0”. The missing sub-fields will be filled by the defaults for the particular field (ex: the weight field for an SKU or the Length field of a pallet). Careful coordination must be used if you skip these sub-fields. Know your defaults.

[SKU] record

MaxLoad Professional SKU import records actually have a second optional part that describes a unit load for the SKU. A “Best” pallet pattern will be generated at run time if one has not been defined.

(Items in *Italics* are not currently implemented)

Column	Name	Type	Description
A	SKU Type	Numeric	0 – Unknown 1 – <i>Carton</i> 2 – <i>Tray</i> 3 – <i>Shipcase</i> 4 – <i>Bag</i> 5 – <i>Tub</i> 6 – <i>Drum</i> 7 – <i>Bottle</i> 11 – <i>Unitload</i>
B	Name	String (32)	SKU Number
C	Description	String (50)	SKU Description (Optional)
D	<i>MFT</i>		
E	Pallet	String (32)	Name of the pallet to Unitize this SKU onto.
F	SubType	Numeric	0 – Unknown / Don't Care 1 – <i>Single Ended Bags</i> 2 – <i>Double Ended Bags</i> 3 – Round Drum (if SKU Type is Drum this must be 3 for staggered patterns to work) 4 – <i>Ovals</i> 5 – <i>Rectangular</i> 6 – <i>Mixed Pallet</i>
G	Length	Distance	SKU length or SKU diameter for drum style SKUs.
H	Width	Distance	SKU width
I	Height	Distance	SKU height.
J	Weight	Weight	SKU weight.

<i>K-M</i>	<i>Reserved</i>		<i>Reserved - Distance</i>
N	Max Stack Wgt	Weight	Maximum weight allowed to be stacked on this SKU
O	Length Vert	Y/N	Y - Length is allowed Vertical (End Stack)
P	Width Vert	Y/N	Y - Width is allowed Vertical (Side Stack)
Q	Height Vert	Y/N	Y - Height is allowed Vertical (Bottom Stack)
R	Unitize	Y/N	Y - MaxLoad Pro will use this SKU as a unitload whenever possible.
S	Mixed Pallet	Y/N	Y - This SKU may be placed on a pallet with other SKU's after as many full pallets of this SKU as can be have been constructed (that is, put leftovers on mixed pallets).
<i>T</i>	<i>Tote</i>		
U	Has UL		Y - A UnitLoad Record exists for this SKU. If the user indicated that he wants the SKU unitized, it will use this pre-defined UnitLoad for full pallets of the SKU instead of generating one on the fly.
V	Stagger	Y/N	Mostly used for cylindrical shape SKUs.
W	Preferred Vert	Numeric	0 - Length 1 - Width 2 - Height 3 - No Preference

Column	Name	Type	Description
X	Label Surface	Numeric	0 - Length 1 - Width 2 - Height
Y	Dead Stacking Rules	Numeric	0 - Must be stacked floor 1 - Must not be stacked on floor 2 - Best Fit 3 - Prefer on Floor 4 - Prefer on Top
Z	Load Into vehicle	Numeric	0 - Length 1 - Width 2 - Best Fit
AA	Stack Code	String (20)	Stack Code from stack matrix.
AB	Max Stack Height (On Base)	Numeric	Maximum number of cases allowed high (of Self) when upright.
AC	Max Stack Height (On Side)	Numeric	Maximum number of cases allowed high when on side or on end.
AD	Color	Numeric	Decimal representation of a 4 Byte RGB value.
AE	Label	String (20)	Another name for the SKU besides SKU Number
AF	Top Graphic	String (255)	Full path to the paste on graphic file to be shown on top of the SKU.
AG	Side Graphic	String (255)	Full path to the paste on graphic file to be displayed on the side of the SKU
AH	Front Graphic	String (255)	Full path to the paste on graphic file to be pasted on the front of the SKU

AI	SKU Info 1	String (64)	Additional notes fields for SKU. This info gets displayed in the SKU List and the Manifest List but not on reports.
AJ	SKU Info 2	String (64)	Same as SKU Info 1
AK	SKU Info 3	String (64)	Same as SKU Info 1
AL – AX	<i>Reserved</i>		<i>Reserved</i>
AY	Piece Count	Numeric	This reflects the quantity of items going in the SKU.
AZ	No Stack Side	Y/N	Nothing can stack on top of this SKU if it's side loaded
BA	Bundle Count 1	Numeric	Number of items in a bundle (first preference)
BB	Bundle Count 2	Numeric	Number of items in a bundle (second preference)
BC	Bundle Count 3	Numeric	Number of items in a bundle (third preference)
BD	Load Location	Numeric	0 – Load in front 1 – Load in middle 2 – Load in rear

Example of SKU Record

The text string below represents one SKU record. When opened with a text editor like Notepad, it appears as a long text string with fields separated by commas.

SKU record as opened as a text file:

```
3,"Case 2","Sample Case 2",,,,,5,"19 (in) G N N 0 0 4 2","13 (in) G N N 0 0 4 2","17.5 (in) G N N 0 0 4 2","25 (lb) G N N 1 1 0 0",,,,,,"9999 (lb) G N N 1 1 4 2",
Y,Y,Y,Y,Y,N,N,N,0,2,2,2,"Any",99,99,8454143,,,,,"c:\GRAPHIC.BMP",,,,,,"INFO 1","INFO 2","INFO 3",,,,,,,8,N,,,,,,1
```

SKU record as opened in Excel:

Column Data Name Data	A Type 3	B Name "Case 2"	C Description "Sample Case 2"	D <i>MFT</i> ""	E Pallet ""	F SubType 5	G Length "19 (in) G N N 0 0 4 2"
	H Width "13 (in) G N N 0 0 4 2"		I Depth "17.5 (in) G N N 0 0 4 2"		J Weight "25 (lb) G N N 1 1 0 0"		
	K <i>Dist1</i> ""	L <i>Dist2</i> ""	M <i>Dist3</i> ""	N Max Stack Weight "9999 (lb) G N N 1 1 4 2"			

O Length Vert	P Width Vert	Q Height Vert	R Unitize	S Mixed Pallet	T Tote	U Has UL	V Stagger
Y	Y	Y	Y	Y	N	N	N

W Prev vert	X Label	Y Stack rules	Z Orient	AA Stack code	AB Vert stack Hgt	AC Horz stack Hgt	AD Color	AE Label
0	2	2	2	“Any”	99	99	8454143	“”

AF Top Graphic	AG Side Graphic	AH Front Graphic	AI SKU Info	AJ SKU Info	AK SKU Info	AY Piece Count
“c:\graphic.bmp”	“”	“”	1 “INFO 1”	2 “INFO 2”	3 “INFO 3”	8

AZ No Stack Side	BA Bundle Count	BB Bundle Count 2	BC Bundle Count	BD Load Location
N	1 “”	“”	3 “”	1

[UnitLoad] record

UnitLoad Records are used to describe the parameters needed to display items grouped together on a pallet. This includes unitloads for individual SKUs, the mixed pallet parameters for truck Manifests, and the parameters for mixed pallet manifests. When preparing a SKU for import, in most cases it should not be necessary to enter more than fields 1-3, 15-17, and 40-43, allowing the rest to be filled in from the defaults. Items in *italics* have not been implemented.

Column	Name	Type	Description
A	Type	Numeric	0 - UnitLoad 1 - Mixed Pallet on a Truck 2 - Mixed Pallet Manifest
B	Name	String (64)	Name of SKU or Manifest, depending on type. SKU names are limited to 32 characters while Manifest Names can be up to 64 characters.
C	Pallet	String (32)	Name of Pallet being used.
D	Stack Code	String (20)	Stack code (from Stack Matrix) to use when loading into vehicle.
<i>E - N</i>	<i>Reserved</i>		<i>Reserved</i>
O	Stack Height	Numeric	Number of SKUs/loads allowed to be stacked on one another.
P	Stack Rules	Numeric	0 - Must be stacked on floor 1 - Must not be stacked on floor 2 - Best Fit
Q	Orientation / Load Into vehicle	Numeric	0 - Load By Length 1 - Load By Width 2 - Best fit.
<i>R - T</i>	<i>Reserved</i>		<i>Reserved</i>
U	Corner Posts		Y – Place corner posts on the unitloads
<i>V - Z</i>	<i>Reserved</i>		<i>Reserved</i>

AA	Block 1	Y/N	Note 1 - One Block (Columnar)
AB	Block 2	Y/N	Note 1 - Two Block (Interlock)
AC	Block 3	Y/N	Note 1 - Three Block (TriBlock)
AD	Block 4	Y/N	Note 1 - Four Block (Spiral, Pinwheel)
AE	Block 5	Y/N	Note 1 - Five Block (Filled Spiral)
AF	Block 5P	Y/N	Note 1 - Five Block Plus (Double spiral with Fill)
AG	Soldier	Y/N	Note 1 - Soldiered
AH	Diagonal	Y/N	Note 1 - Diagonal
AI	<i>Reserved</i>		<i>Reserved</i>
AJ	Multi-Dim	Y/N	Note 1 - Allow each layer to have a different case dim vertical.
AK	Multi-Surface	Y/N	Note 1 - Using the one through four blocks, load as though gravity were pulling toward the wall.
AL	Multi-Layer	Y/N	Note 1 - Allow top layer to be any dimension vertical regardless of dimensions allowed vertical for this SKU (because it's on top).
AM	Stagger	Y/N	Note 1 - Allow staggered patterns for round objects.
AN	Max. Len. Overhang	Distance	Distance cases are allowed past edge of pallet.
AO	Max. Wid. Overhang	Distance	Distance cases are allowed past edge of pallet.
AP	Max Height	Distance	Maximum unitload height.
AQ	Max Weight	Weight	Maximum unitload weight
AR	Corner Posts Support Length	Distance	Thickness of material for corner posts.
AS	Corner Posts Support Width	Distance	Width of corner posts.
AT	Max Stack Wgt	Weight	Maximum weight of items allowed being stacked on top of this UL.
AU	Max Vert Gap	Distance	Maximum height difference between adjacent mixed pallet items to be considered level when loading items onto them.
AV - AY	<i>Reserved</i>		<i>Reserved</i>
AZ	Block 1	Y/N	Note 2 - One Block (Columnar)
BA	Block 2	Y/N	Note 2 - Two Block (Interlock)
BB	Block 3	Y/N	Note 2 - Three Block (TriBlock)
BC	Block 4	Y/N	Note 2 - Four Block (Spiral, Pinwheel)
BD	Block 5	Y/N	Note 2 - Five Block (Filled Spiral)
BE	Block 5P	Y/N	Note 2 - Five Block Plus (double spiral with fill)
BF	Solider	Y/N	Note 2 - Soldiered
BG	Diagonal	Y/N	Note 2 - Diagonal
BH	<i>Reserved</i>	Y/N	<i>Reserved</i>
BI	Multi-Dim	Y/N	Note 2 - Allow each layer to have a different case dim vertical.
BJ	Multi-Surface	Y/N	Note 2 - Using the one through four blocks, load as though gravity were pulling toward the wall.
BK	Multi-Layer	Y/N	Note 2 - Allow top layer to be any dimension vertical regardless of dimensions allowed vertical for this SKU (because it's on top).
BL	Stagger	Y/N	Note 2 - Allow staggered patterns for round objects.
BM	Len Overhang	Float	Distance cases are allowed past edge of pallet.

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BN	Width Overhang	Float	Distance cases are allowed past edge of pallet.
BO	Max Height	Float	Maximum Height for calculating UnitLoad.
BP	Max Weight	Float	Maximum Weight for calculating UnitLoad
BQ	Corner Post T	Float	Thickness of material for CornerPosts
BR	Corner Post W	Float	Width of corner posts.
BS	Max Stack Wgt	Float	Maximum weight of items allowed to be stacked on top of this UL.
BT	Max Vert Gap	Float	Maximum height difference between adjacent mixed pallet items to be considered level when loading items onto them.
BU	Length	Float	Reserved. Calculated length of loaded UnitLoad .
BV	Width	Float	Reserved. Calculated width of loaded UnitLoad.
BW	Height	Float	Reserved. Calculated height of loaded UnitLoad.
BX	Weight	Float	Reserved. Calculated weight of loaded UnitLoad.

Notes

1. The Decimal representation of a bit field defining the layers that are to be rotated. Bit 1 = bottom layer. Max of 32 bits.
2. A 'Y' indicates that the mentioned pallet pattern is allowed. Patterns switches only apply to single SKU UnitLoads (Not Mixed Pallet Loads).
3. **Reserved** Items may have values when exported but should not be constructed by the user for import. Allow the system to fill them in during import.

[Manifest] record

MaxLoad Professional Manifests consist of a Single Manifest record, followed by a single Mixed Pallet definition (See Unitload Record), followed by one or more Vehicles, followed by one or more pick records.

Column	Name	Type	Description
A	Name	String (64)	Name of the manifest.
B	User Name	String	Name of user creating this manifest. If left blank and user logins are active, only Supervisor will be able to open.
C	Manifest Type	Numeric	0 - Vehicle 1 - Pallet 2 - Tote 3 - Single SKU
D	Units	E/M	E - English M - Metric G - Global Setting to be put into place when opening this manifest
E - G	Reserved		Reserved.
H	Show Flaps	Y/N	Y - Show Flaps on cases.
I	Vehicle Type	Numeric	0 - Truck 1 - Sea van 2 - Railcar Vehicle manifests only.
J	Use UnitLoads	Y/N	Y - Put SKU's on pallets (unitize) - Vehicle manifests

Column	Name	Type	Description
			only.
K	Use Mixed Pallets	Y/N	Y - Put SKUs on mixed pallets - Vehicle manifests only.
L	<i>Reserved</i>		<i>Reserved</i>
M	Group Orders	Y/N	Y - Attempt to keep items with the same stop off or priority and the same order number near each other in the load. This may cause a loss of efficiency.
N	Group Like SKUs	Y/N	Y - Attempt to keep SKUs with the same stop off or priority clustered in the load.
O	Load Front to Back	Y/N	Y - Use the standard front to back algorithm.
P	Load Floor to Ceiling	Y/N	Y - Use the optional floor to ceiling algorithm. This algorithm does not handle multiple stop off's or priorities.
Q	Load by priority	Y/N	Use the priority system rather than the stop off system.
R	Load by stop off	Y/N	Use the stop off system rather than the priority system. Do not set both load by priority and load by stop off to 'Y'
S - U	<i>Reserved</i>		<i>Reserved</i>
V	Max Cargo Wgt	Weight	Maximum weight allowed in load.
W	Min Vert Clearance	Distance	For vehicles only. The amount of ceiling clearance required.
X	Max Vert Gap	Distance	Maximum height difference between adjacent items to be considered level when loading items onto them.
Y	Max Overlap	Distance	The distance down the length of the vehicle one priority or stop off can overlap the previous priority or stop off.
Z	<i>Reserved</i>		<i>Reserved</i>
AA	Block 1	Y/N	Note 1 - One Block (Columnar)
AB	Block 2	Y/N	Note 1 - Two Block (Interlock)
AC	Block 3	Y/N	Note 1 - Three Block (TriBlock)
AD	Block 4	Y/N	Note 1 - Four Block (Spiral, Pinwheel)
AE	Block 5	Y/N	Note 1 - Five Block (Filled Spiral)
AF	Block 5P	Y/N	Note 1 - Five Block Plus (Double Spiral with fill)
AG	Soldier	Y/N	Note 1 - Soldiered
AH	Diagonal	Y/N	Note 1 - Diagonal
AI	<i>Reserved</i>		<i>Reserved</i>
AJ	Multi-Dim	Y/N	Note 1 - Allow each layer to have a different case dim vertical.
AK	Multi-Surface	Y/N	Note 1 - Using the one through four blocks, load as though gravity were pulling toward the wall.
AL	Multi-Layer	Y/N	Note 1 - Allow top layer to be any dimension vertical regardless of dimensions allowed vertical for this SKU.
AM	Stagger	Y/N	Note 1 - Allow staggered patterns for round objects.
AN	<i>Reserved</i>		<i>Reserved</i>
AO	Load Layers	Y/N	Y - For mixed pallet manifests, Attempt to load complete layers of SKUs, as defined in the individual UnitLoads for those SKUs, before loading loose cases.
AP	<i>Reserved</i>		<i>Reserved</i>
AQ	Mixed Pallet Count	Numeric	Number of mixed pallets generated by this Vehicle Manifest.
AR - AU	<i>Reserved</i>		<i>Reserved</i>

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Column	Name	Type	Description
AV	Load Space Evenly	Y/N	Y - Load using the Space evenly algorithm
AW	Load using L/R	Y/N	Y - Apply Left to right optimization to the other algorithms when loading
AX	MFT Comment 1	String (128)	An optional comment field that appears on reports.
AY	MFT Comment 2	String (128)	An optional comment field that appears on reports.
AZ	MFT Comment 3	String (128)	An optional comment field that appears on reports.
BA	Report Type	Numeric	Indicates which views to print 1 - 3D Front 2 - 3D Back 4 - Top 8 - Side 16 - Front.
BB	Show Graphics	Y/N	Print cases with Paste on
BC	Print Style	Numeric	0 - B/W 1 - Color Outline 2 - Color throughout
BD	Resolution	Numeric	Integer between 50 and 100. 100 - Fine print using the largest Bitmap we can make, AKA fine. 50 - Course.

Notes

- Reserved** Items may have values when exported but should not be constructed by the user for import. Allow the system to fill them in during import.
- A 'Y' indicates that the mentioned pallet pattern is allowed. Patterns switches only apply to single SKU UnitLoads (Not Mixed Pallet Loads).

[ContainerList] record

The ContainerList Record indicates the vehicle(s) to be loaded by this manifest. Mixed pallet manifests do not use these. Single SKU manifests use exactly one.

Column	Name	Type	Description
A	MFT Name	String (64)	Manifest that this vehicle is being used in for. Must already exist.
B	Vehicle Name	String	As found in the vehicle database. Must already exist.
C	Number	Numeric	Which truck should this vehicle be assigned to? If there are multiple trucks of SKUs, then this would specify that the vehicle was for the nth truck. Normally should be 1 for new manifests.
D	Current	Y/N	Used when 'View' is clicked. The current vehicle is the one displayed.
E	MFT Type	Numeric	0 - Vehicle 1 - Pallet 2 - Tote 3 - Single SKU onto Vehicle.

[PickList] record

The PickList is where you describe the SKUs to be loaded in this manifest. On SKU per pick record.

Column	Name	Type	Description
A	SKU Name	String (32)	Name of the SKU as found in the SKU file.
B	MFT Name	String (64)	Name of the Manifest this record belongs to.
C	Number	Numeric	All Pick records for a given single Manifest are numbered sequentially.
D	SKU Type	Numeric	See Type in the SKU Record definition.
E	SKU Subtype	Numeric	See Subtype in the SKU Record definition.
F	<i>Reserved</i>		<i>Reserved</i>
G	Quantity.	Numeric	SKU quantity to be loaded.
H	Order Number	String	Use as you will. The "Keep Like Orders Together" switch makes use of this.
I	Priority	Numeric	Lowest priority is loaded first.
J	Use UnitLoads	Y/N	Y - Build unitloads of this SKU before loading into container.
K	<i>Reserved</i>		<i>Reserved</i>
L	Use Mixed Pallets	Y/N	Y - Load loose items of this SKU on Mixed Pallets.
M	Stop Off	Numeric	Load Last Stop First. Never load a partial stop. Base 1. Stop off's of zero "0" never get loaded.
N - O	<i>Reserved</i>		<i>Reserved</i>
P	MFT Type	Numeric	0 - Vehicle 1 - Pallet 2 - Tote 3 - Single SKU onto Vehicle

[Tote] record

The Tote is where you describe the Tote Container types.

Column	Name	Type	Description
A	Style	Numeric	Use 0
B	Name	String	Name of Tote
C	Group	Numeric	Not used
D	Outside Length	Numeric	Outside Length
E	Outside Width	Numeric	Outside Width
F	Outside Height	Numeric	Outside Height
G	Inside Length	Numeric	Inside Length
H	Inside Width	Numeric	Inside Width
I	Inside Height	Numeric	Inside Height
J	Weight	Numeric	Weight of this Tote
K	Special Length	Numeric	Not Used
L	Special Width	Numeric	Not Used
M	Special Height	Numeric	Not Used
N	Maximum weight	Numeric	Maximum Weight that can be loaded in this Tote
O	Maximum Stack Weight	Numeric	Maximum Weight that can be put on top of this Tote

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Column	Name	Type	Description
P	Orientation	Numeric	0 - Load into Vehicle by Length 1 - Load into Vehicle by Width 2 - don't care
Q	Stack Rules	Numeric	0 - Must be stacked on floor 1 = Must not be stacked on floor
R	Stack Code	Numeric	<i>Stack code to use for the Tote</i>
S	Stack Height	Numeric	Number of these UnitLoads allowed to be stacked on one another.
T	Manifest Type	Numeric	0 - Vehicle 1 - Pallet 2 - Tote 3 - Single SKU onto Vehicle
U	Color	Numeric	Decimal representation of a 4 Byte RGB value.

[Pallet] record

The Pallet record contains the descriptions of the pallets a SKU can be loaded onto.

Example of a pallet record:

10,"GMA Notched",3,7,N,N,N,N,1,0,"48 (in) E N N 0 0 2 2","40 (in) E N N 0 0 2 2","5 (in) E N N 0 0 2 2","65 (lb) G N N 1 1 2 2","0 (in) G N N 0 0 3 2","1 (in) G N N 0 0 2 2","4 (in) G N N 0 0 2 0","6 (in) G N N 0 0 2 2","4 (in) G N N 0 0 2 2","2 (in) G N N 0 0 2 2","2 (in) G N Y 0 0 3 2",32896,2

Column	Name	Type	Description
A	Type	Numeric	Type – 10 for Pallet
B	Name	String(32)	Name of the Pallet
C	Style	Numeric	Pallet Style 1 = None; 2 = Stringer; 3 = Notched Stringer; 4 = Block; 5 = Block Stringer; 6 = Euro; 7 = Slip-Sheet
D	Total Deck boards	Numeric	Number of deck boards in the Pallet
E	Auto Size	Y/N	Y = Slip-sheet is trimmed to outside dimensions of the unit load
F	Length Tab	Y/N	Y = Tab added to length
G	Width Tab	Y/N	Y = Tab added to width
H	Both sides	Y/N	Y = Tab added on both sides
I	Construction	Numeric	Pallet construction style 0 = Single Face 1 = Double Face 2 = Reversible

Column	Name	Type	Description
J	Alignment	Numeric	Refers to how the stringer is positioned in relation to the deck boards. 0 =Flush 1 = Single Wing 2 = Double Wing
K	Length	Distance	Length of Pallet or Slip sheet
L	Width	Distance	Width of Pallet or Slip sheet
M	Height	Distance	Height of Pallet or Slip sheet
N	Weight	Weight	Weight of Pallet or Slip sheet
O	Wing Offset	Distance	Distance that the stringers will be offset from the edge of the pallet. 0 if alignment is Flush
P	Deck board Thickness	Distance	Deck board thickness
Q	Inside Deck board Width	Distance	Width of the inside deck board
R	Outside Deck board Width	Distance	Width of the outside deck board
S	Center Deck board Width	Distance	Width of the center deck board
T	Stringer Width	Distance	Width of the stringer
U	Tab Width	Distance	Width of Tabs
V	Color	Numeric	Decimal representation of a 4 Byte RGB value
W	Number of Stringers	Numeric	Number of stringers on the Pallet