MAXLOAD PRO INTEGRATION AND IMPORT/EXPORT OVERVIEW

TOPS Engineering Corporation's MaxLoad Pro (MaxPro) software for Windows 95/98/NT4.x is capable of importing SKU and Order information 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 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 MaxPro. 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 MaxPro Manifest. A full breakdown of most of MaxPro's import can be found starting with page 3. 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 MaxPro installation directory (defaults to C:\Program Files\TOPSAPPS\Max2Demo or Max2Pro).

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 MaxPro's import format.
3. Save the Excel spreadsheet as a CSV file.
4. Enter MaxPro and select Tools|Import 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 MaxPro, 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 IMPORT.DOC. Normally an order must contain:

1. The standard Header information ([Version], [English], etc.)
2. One or more [Manifest] sections. A manifest is a 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 company 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 MaxPro 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, MaxPro 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. MaxPro'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 MaxPro's internal data structure is generated through DAO (3.5), it is possible to directly manipulate MaxPro's data (through Microsoft Access for instance). However, this manipulation should be limited to extracting information from the MaxPro tables. When importing from ASCII MaxPro fills in any fields that are missing or incomplete. It does not perform this error checking during regular operation.

MaxLoad Pro 2.0x 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]. Then next line denotes the version the software exported from (i.e. the string "`2.09`"). When creating an import file, include this information on the first 2 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, one of these two "flags" is included after the [Version] section to indicate the current default state of the system. 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 this file (the import 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 finishing importing the current file, import the file name on the next line (deleting or renaming this file as previously specified).
`[Clear SKU File]`	Delete all SKU's from the SKU database & their associated records.
`[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 & their associated records.
`[Clear Tote MFT]`	Not implemented.
`[Clear Single MFT]`	Delete all single SKU Manifests for all users & their associated records.
`[Clear All MFT]`	Delete ALL the manifests for all the users.
`[Exit]`	After completion of Import, exit the program, instead of staying in.

Import Record Entries

[Annotate]	Not Documented. Describes text and graphic annotations to a manifest's print preview.
[ContainerList]	Starts on page 12. Describes the vehicle(s) used on a 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]	Starts on page 10. Base manifest description, what patterns to use, what type of manifest is it, etc. Use [PickList] records to denote what goes on the manifest.
[Messages]	Not Documented. Multi-lingual export of long system phrases.
[Pallet]	Not Documented. Descriptions of the pallets a SKU can be loaded onto.
[PickList]	Starts on page 12. Used to add quantities of SKUs to a manifest. Includes the SKU priority, order #, whether to Unitize it, etc. See also [Manifest] record.
[PlaceList]	Not Documented. Use by calculated loads to record the location of each loaded item on a vehicle/pallet.
[SKU]	Starts on page 6. Each record describes an SKU.
[Stack]	Not Documented. A list of the current stack codes and their default states. Does not contain a complete description of the stackability matrix.
[Tote]	Not Documented. Not Implemented. For future expansion.
[UnitLoad]	Starts on page 8. Describes which pallet to use for a given Manifest, SKU, or Mixed Pallet. Also specifies what overhang, underhang, etc. to use.instance.
[User] record	Not Documented. Individual user settings including, Name, Stackmat path, and other settings found under the "Tools|Configuration" menu item.
[Vehicle]	Not Documented. Descriptions of the Vehicles that may be loaded.
Units Data Field	Starts on page 5. Anytime a distance, weight, area, volume, or percent is exported it is formatted/described using the Units Data Field format.

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

1) 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 loose a few significant digits or end up rounded to the nearest 64^{th}.
2) 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.
3) 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.
4) `Y` = Display with fractional parts as fractions rounded to the nearest $1/64^{th}$ and reduced.
   `N` = Show as Decimals using the appropriate number of decimal places
5) `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.

```
3,"Case 2","Sample Case 2","","",3,"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"
```

These two tables are used by the SKU Field Descriptions.

SKU Type Table

Type	Description	Notes
0	Unknown	
1	Carton	
2	*Tray*	Not implemented
3	ShipCase	
4	*Bag*	Not implemented
5	*Tub*	Not implemented
6	Drum	
7	*Bottle*	Not implemented
11	UnitLoad	

SKU SubType Table

Type	Description
0	Don’t Know/Care
1	*Single Ended (Bags)*
2	*Double Ended (Bags)*
3	Round (Drum) If SKU Type is Round this must be 3 for staggered patterns to work.
4	*Ovals*
5	Rectangular
6	Mixed Pallet

SKU Record Field Descriptions

(Items in *Italics* are not currently implemented)

Type	Name	Description	*MFT*	Pallet	SubType	Length
3	“Case 2”	“Sample Case 2”	“”	“”	5	“19 (in) G N N 0 0 4 2”

Name	Type	Description
SKU Type	Numeric	Denotes the type of SKU, See SKU Type Table
Name	String(32)	SKU Name/Number.
Description	String(50)	Optional SKU description
MFT	*String(64)*	In the future will represent the name of the Manifest this SKU represents.
Pallet	String(32)	Name of the pallet to Unitize this SKU onto.
SubType	Numeric	See SKU SubType Table for Details. Defaults to 5.
Length	Distance	Also denotes diameter of round SKU types.

Width	Depth	Weight
“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”

Name	Type	Description
Width	Distance	Not used with round SKU types.
Height	Distance	
Weight	Weight	

[SKU] record (Continued)

Dist1	*Dist2*	*Dist3*	Max Stack Weight
""	""	""	"9999 (lb) G N N 1 1 4 2"

Name	Type	Description
Dist1	*Distance*	
Dist2	*Distance*	
Dist3	*Distance*	
Max Stack Wgt	Weight	Maximum weight allowed to be stacked on this SKU

Length Vert	Width Vert	Height Vert	Unitize	Mixed Pallet	Tote	Has UL	Stagger
Y	Y	Y	Y	Y	N	N	N

Name	Type	Description
Length Vert	Y/N	Y = Length is allowed Vertical (End Stack)
Width Vert	Y/N	Y = Width is allowed Vertical (Side Stack)
Height Vert	Y/N	Y = Height is allowed Vertical (Bottom Stack)
Unitize	Y/N	If Y, then the switch for whether to palletize the SKU when loading onto a vehicle will default to be checked.
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)
Tote	*Y/N*	Y = Put leftovers into a tote box before loading.
Has UL	Y/N	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.
Stagger	Y/N	For round objects, should we try staggered patterns.

Prev vert	Label	Stack rules	Orient	Stack code	Vert stack Hgt	Horz stack Hgt	Color	*Item type*
0	2	2	2	"Any"	99	99	8454143	""

Name	Type	Description
Preferred Vert	Numeric	0 = Length, 1 = Width, 2 = Height, 3 No Preference
Label Surface	Numeric	0 = Length, 1 = Width, 2 = Height
Stack Rules	Numeric	0 = Must be stacked floor 1 = Must not be stacked on floor 2 = Don't care
Orientation	Numeric	Load into Vehicle by 0=Length, 1=Width, 2=Don't Care. (i.e. Best Fit)
Stack Code	String(20)	Stack Code from stackability matrix.
Vert Stack Hgt	Numeric	Maximum number of cases allowed high (of Self) when upright.
Horz Stack Hgt	Numeric	Maximum number of cases allowed high when on side or on end.
Color	Numeric	Decimal representation of a 4 Byte RGB value.
Label	String(20)	Short ID label to put on drawing of SKU

Top Graphic	Side Graphic	Front Graphic	SKU Info 1	SKU Info 2	SKU Info 3
"c:\graphic.bmp"	""	""	"INFO 1"	"INFO 2"	"INFO 3"

Name	Type	Description
Top Graphic	String(255)	Full path of the paste on graphic to be shown on top of the SKU. If it DNE then the file will be looked for in the BMP path.
Side Graphic	String(255)	See Top Graphic - These 3 fields were added in version 2.06
Front Graphic	String(255)	See Top Graphic
SKU Info 1	String(64)	Additional optional string field for SKU. Currently only appears on Manifest list when selecting SKU's for putting on a manifest. Does not appear on printouts.
SKU Info 2	String(64)	See SKU Info 1. - These 3 fields were added in version 2.07.
SKU Info 3	String(64)	See SKU Info 2.

[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.

Fields of the UnitLoad Record

Name	Type	Description
1. Type	Numeric	0=UnitLoad, 1=mixed pallet on a truck, 2=mixed pallet manifest
2. Name	String(64)	Name of SKU or Manifest, depending on type. Note: SKU names are limited to32 characters while Manifest Names can be up to 64 characters.
3. Pallet	String(32)	Name of Pallet. May be "none"
4. Stack Code	String(20)	Stack code (from Stack Matrix) to use when loading into vehicle.
5. Pattern		Reserved
6. Reserved		*Reserved*
7. Pattern Type		Reserved
8. Reserved		*Reserved*
9. Reserved		*Note #1*
10. Reserved		*Note #1*
11. Reserved		*Note #1*
12. Reserved		*Note #1*
13. Reserved		*Note #1*
14. Reserved		*Note #1*
15. Stack Height	Numeric	Number of these UnitLoads allowed to be stacked on one another.
16. Stack Rules	Numeric	0 = Must be stacked floor, 1 = Must not be stacked on floor
17. Orientation	Numeric	0 = Load into Vehicle by Length, 1= by Width, 2 = don't Care.
18. Reserved		*Reserved*
19. Reserved		*Reserved*
20. Reserved		*Reserved*
21. CornerPosts	Y/N	Y = Put corner-posts on the UnitLoad.

Name	Type	Description
22. Reserved		*Reserved*
23. Reserved		*Reserved*
24. Reserved		*Reserved*
25. Reserved		*Reserved*
26. Reserved		*Reserved*
27. Block 1	Y/N	Note #2. One Block (Columnar)
28. Block 2	Y/N	Note #2. Two Block (Interlock)
29. Block 3	Y/N	Note #2. Three Block (TriBlock)
30. Block 4	Y/N	Note #2. Four Block (Spiral, Pinwheel)
31. Block 5	Y/N	Note #2. Five Block (Filled Spiral)
32. Block 5P	Y/N	Note #2. Five Block Plus (double spiral with fill)
33. Soldier	Y/N	Note #2. Soldiered
34. Diagonal	Y/N	Note #2. Diagonal
35. Reserved		*Reserved*
36. Multi-Dim	Y/N	Note #2. Allow each layer to have a different case dim vertical.
37. Multi-Surface	Y/N	Note #2. Using the one through four blocks, load as though gravity were pulling toward the wall.
38. 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).
39. Stagger	Y/N	Note #2. Allow staggered patterns for round objects.
40. Len Overhang	Distance	Distance cases are allowed past edge of pallet.
41. Wid Overhang	Distance	Distance cases are allowed past edge of pallet.
42. Max Height	Distance	Maximum Height for calculating UnitLoad.
43. Max Weight	Weight	Maximum Weight for calculating UnitLoad
44. Corner Post T	Distance	Thickness of material for CornerPosts
45. Corner Post W	Distance	Width of corner posts.
46. Max Stack Wgt	Weight	Maximum weight of items allowed to be stacked on top of this UL.
47. Max Vert Gap	Distance	Maximum height difference between adjacent mixed pallet items to be considered level when loading items onto them.
48. Length	Distance	Reserved. Calculated length of loaded UnitLoad .
49. Width	Distance	Reserved. Calculated width of loaded UnitLoad.
50. Height	Distance	Reserved. Calculated height of loaded UnitLoad.
51. Weight	Weight	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.

Fields of the Manifest Record:

Name	Type	Description	
1. Name	String(64)	Name of manifest.	
2. User Name	String	Name of user creating this manifest. If left blank and user logins are active, only supervisor login will be able to open.	
3. Manifest Type	Numeric	0 = Vehicle, 1 = Pallet, 2 = Tote, 3 = Single SKU onto Vehicle.	
4. Units	E/M	E = English, M = Metric. Global Setting to be put into place when opening this manifest	
5. Create Time	String	Reserved.	
6. Modify Time	String	Reserved..	
7. Reserved		*Reserved*	
8. Show Flaps	Y/N	Y = Show Flaps on cases.	
9. Vehicle Type	Numeric	0 = Truck, 1 = Sea van, 2 = Railcar.	Vehicle manifests only
10. Use UnitLoads	Y/N	Y = Put SKU's on pallets (unitize).	Vehicle manifests only
11. Use Mixed Pallets	Y/N	Y = Put SKUs on mixed pallets.	Vehicle manifests only
12. Reserved		*Reserved*	
13. 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.	
14. Group Like SKUs	Y/N	Y = Attempt to keep SKUs with the same stop off or priority clustered in the load. This may cause a loss of efficiency.	
15. Load Front to Back	Y/N	Y = Use the standard front to back algorithm.	
16. 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.	
17. Load by priority	Y/N	Use the priority system rather than the stop off system.	
18. 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'	
19. Reserved		*Reserved*	
20. Reserved		*Reserved*	
21. Reserved		*Reserved*	
22. Max Cargo Wgt	Weight	Maximum weight allowed in load.	
23. Min Vert Clearance	Distance	For vehicles only. The amount of ceiling clearance required.	
24. Max Vert Gap	Distance	Maximum height difference between adjacent items to be considered level when loading items onto them.	
25. Max Overlap	Distance	The distance down the length of the vehicle one priority or stop off can overlap the previous priority or stop off.	
26. Reserved		*Reserved*	
27. Block 1	Y/N	Note #2. One Block	(Columnar)
28. Block 2	Y/N	Note #2. Two Block	(Interlock)
29. Block 3	Y/N	Note #2. Three Block	(TriBlock)
30. Block 4	Y/N	Note #2. Four Block	(Spiral, Pinwheel)
31. Block 5	Y/N	Note #2. Five Block	(Filled Spiral)
32. Block 5P	Y/N	Note #2. Five Block Plus	(Double Spiral with fill)
33. Soldier	Y/N	Note #2. Soldiered	

Name	Type	Description
34. Diagonal	Y/N	Note #2. Diagonal
35. Reserved		*Reserved*
36. Multi-Dim	Y/N	Note #2. Allow each layer to have a different case dim vertical.
37. Multi-Surface	Y/N	Note #2. Using the one through four blocks, load as though gravity were pulling toward the wall.
38. Multi-Layer	Y/N	Note #2. Allow top layer to be any dimension vertical regardless of dimensions allowed vertical for this SKU.
39. Stagger	Y/N	Note #2. Allow staggered patterns for round objects.
40. Reserved		*Reserved*
41. 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.
42. Vehicle Count	Numeric	Reserved. Number of trucks that have are needed to load this manifest.
43. Mixed Pallet Count	Numeric	Number of mixed pallets generated by this Vehicle Manifest.
44. Pattern		Reserved
45. Reserved		*Reserved*
46. Pattern Type		Reserved
47. Reserved		*Reserved*
48. Load Space Evenly	Y/N	Y = Load using the Space evenly algorithm
49. Load using L/R	Y/N	Y = Apply Left to right optimization to the other algorithms when loading
50. MFT Comment 1	String(128)	An optional comment field that appears on Print|Load printouts.
51. MFT Comment 2	String(128)	An optional comment field that appears on Print|Load printouts.
52. MFT Comment 3	String(128)	An optional comment field that appears on Print|Load printouts.
53. Report Type	Numeric	ORed Bit field. Indicates which views to print on Print|Load printouts. Bit 1=3d Front, 2=3d Back, 4=Top, 8=Side, 16=Front.
54. Show Graphics	Y/N	Print cases with Paste on Graphics on them as applicable?
55. Print Style	Numeric	0=B/W, 1=Color Outline, 2=Color throughout
56. Resolution	Numeric	Integer between 50 and 100. 100=Fine print using the largest Bitmap we can make, AKA fine. 50=Course.

Notes

1. **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.
2. 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.

Fields of the ContainerList record

Name	Type	Description
1. MFT Name	String(64)	Manifest that this vehicle is being used in for. Must already exist.
2. Vehicle Name	String	As found in the vehicle database. Must already exist.
3. 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.
4. Current	Y/N	Used when 'View' is clicked. The current vehicle is the one displayed.
5. 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.

Name	Type	Description
1. SKU Name	String(32)	Name of the SKU as found in the SKU file.
2. MFT Name	String(64)	Name of the Manifest this record belongs to.
3. Number	Numeric	All Pick records for a given Manifest are number sequentially.
4. SKU Type	Numeric	See Type in the SKU Record definition.
5. SKU Subtype	Numeric	See Subtype in the SKU Record definition.
6. Min Quantity		*Reserved*
7. Max Quantity.	Numeric	Currently Interpreted as the desired load quantity.
8. Order Number	String	Use as you will. The "Keep Like Orders Together" switch makes use of this.
9. Priority	Numeric	Lowest priority is loaded first.
10. Use UnitLoads	Y/N	Y = Build unitloads of this SKU before loading into Vehicle.
11. Reserved		*Reserved*
12. Use Mixed Pallets	Y/N	Y = Load loose items of this SKU on Mixed Pallets.
13. Stop Off	Numeric	Load Last Stop First. Never load a partial stop. Base 1. Stop off's of zero "0" never get loaded.
14. Reserved		*Reserved*
15. Reserved		*Reserved*
16. MFT Type	Numeric	0 = Vehicle, 1 = Pallet, *2* = *Tote*, 3 = Single SKU onto Vehicle.