ACE Structural Engineering Applications LLC
ACE FrameWorks Utilities
Section Library Utilities Documentation

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The ACE FrameWorks utilities contain 5 section library utility applications. The first utility is the Section Library Units Conversion Program, which allows metric libraries to be converted to english and vice versa. The second utility is the section library ASCII file export program, which allows any FrameWorks section library to be exported to an ASCII file. The third utility is the section library ASCII file import utility, which allows the creation of FrameWorks section library files from an ASCII file of a specific format. The fourth utility is the section library compression program, which compresses deleted library members from both the index (IDX) and library (DAT) files. The fifth utility is the Combine Section Libraries program, which can combine up to five existing libraries to create a new combined library with duplicates omitted. These utilities can be utilized alone or in combination to manage/combine/create/modify FrameWorks section libraries. Unlike the other ACE FWP utilities, these programs are composed only of MDL and thus do not require the presence of FrameWorks. For each of these applications the section property variable definitions are the same. The section property variables are described toward the end of this document. Each of the five utilities are discussed in the ensuing paragraphs.

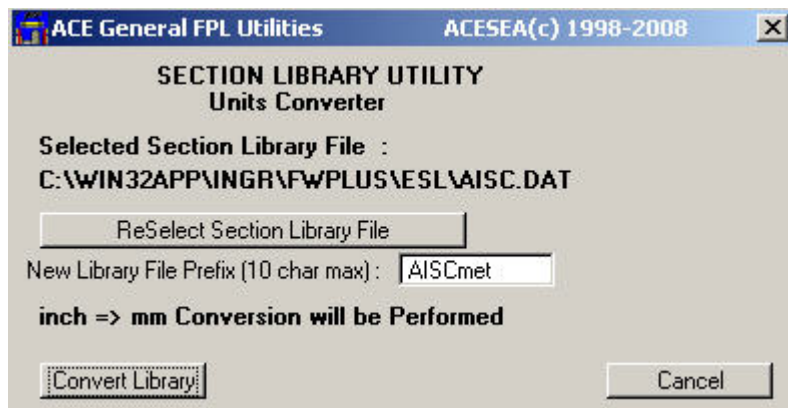## Section Library Units Conversion Program (ACE_USC.MA)
 (Current Versions - FWP 3.1.x.x/3.2.x.x rel 2.0.4 & FWP 7.0.x.x rel 7.0.4 & FWP 7.1/7.2/7.3 rel 6.0.4 & FWP 8.0.x.x rel 8.0.4 & FWP 9.0.x.x rel 9.0.4 & FWP 10.x.x rel 10.0.4 & FWP 11.x.x rel 11.0.4 & FWP 12.x.x rel 12.0.4)

The section library units conversion utility allows conversion of the units for any FrameWorks section library. The library may be a standard supplied library or a user created library. This utility actually creates a new library in the "conversion process". This utility will not write to or in any way change an existing library.

FrameWorks libraries have two potential units. If the library is Metric the units are mm and if the library is English the units are inches. This utility is utilized by first selecting a library to be converted. The utility recognizes the units of the existing library and if the existing library is English the program will indicate a inches => mm conversion and conversely if the library is Metric a mm => inches conversion. A new library prefix must be supplied. The convert library button is pressed and new DAT & IDX files with converted units are generated. The new files are placed in the same location as the source library file.

Note that force related values (fyp & fyppp) are not converted but rather become zero. If these force related values are important they can be manually converted by first converting the library. Next, export the newly generated library and manually edit the force related variables. Finally, import the edited ASCII file.

This section library utility can be utilized with the other three ACE section library utilities to modify, combine and manage FWP section libraries.

Units Conversion Utility

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Section Library Compression Program (ACE_USR. MA)

(Current Versions - FWP 3.1.x.x/3.2.x.x rel 2.0.4 & FWP 7.0.x.x rel 7.0.4 & FWP 7.1/7.2/7.3 rel 6.0.4 & FWP 8.0.x.x rel 8.0.4 & FWP 9.0.x.x rel 9.0.4 & FWP 10.0.x.x rel 10.0.4 & FWP 11.0.x.x rel 11.0.4 & FWP 12.0.x.x rel 12.0.4)

The section library compression utility compresses both the library IDX (index) and DAT (data) files for any FrameWorks section library. The library may be a standard supplied library or a user created library. This utility actually creates a new library IDX and DAT files in the "compression process". This utility will not write to or in any way change an existing library.

When members are deleted from FrameWorks libraries they are in actuality "marked for deletion". The member remains in both the IDX and DAT file however FrameWorks will no longer recognize the section. Deleted files can have a couple of negative effects. The primary negative effect is that of taking up extra disk space and slowing down library operations. Another negative effect can occur when a libray is exported using the ACE FrameWorks utilities. The export utility works only with the DAT file and does not distinguish between deleted and undeleted sections. This can be a benefit when it is desired to "undelete" sections. This is also a great benefit when the IDX file is lost as it can be regenerated by first exporting a library DAT file and then importing the resultant ASCII file thereby generating a IDX file. In general it is recommended that a library be compressed before it is exported (unless there is a desire to retrieve deleted sections).

This utility is utilized by first selecting a library to be compressed. The library IDX file is selected by the user. The utility then assures that a valid DAT corresponding to the IDX file exists.   A new library prefix must be supplied. The utility verifies that there are no IDX or DAT files matching the new prefix. The compress library button is pressed and new DAT & IDX files with deleted members removed are generated. The new files are placed in the same location as the source library file.

This section library utility can be utilized with the other three ACE section library utilities to modify, combine and manage FWP section libraries.

Compression Utility

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Section Library ASCII File Export Program (ACE_USE. MA)

(Current Versions - FWP 3.1.x.x/3.2.x.x rel 2.0.4 & FWP 7.0.x.x rel 7.0.4 & FWP 7.1/7.2/7.3 rel 6.0.4 & FWP 8.0.x.x rel 8.0.4 & FWP 9.0.x.x rel 9.0.4 & FWP 10.0.x.x rel 10.0.4 & FWP 11.0.x.x rel 11.0.4 & FWP 12.0.x.x rel 12.0.4)

The section library ASCII file export utility allows the export of any FrameWorks section library. The library may be a standard supplied library or a user created library. This utility creates ASCII file (.TXT extension) which contains all the shapes in the selected source DAT file. This utility will not write to or in any way change an existing library.
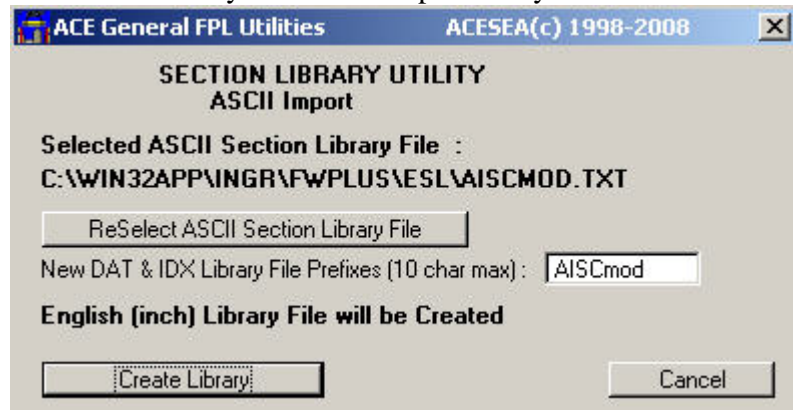

This utility is utilized by first selecting a library to be exported. The utility reads each section in the existing library (deleted or active) and dumps each section to the ASCII file. An ASCII library prefix must be supplied. If the TXT file exists, an option is given to overwrite the TXT file. The Export ASCII library button is pressed and a TXT file is created.

The new file is placed in the same location as the source library file.   A typical section with non-zero values will produce five lines of data in the ASCII file. Each value is preceded by the property name and then the value. If a value is zero, it is not exported. The companion ASCII file import program reads the ASCII file export format to generate a new library. In addition, the properties of individual sections can be easily modified (i.e. names or section properties). Additionally, the export/import utilities can be utilized to re-create missing IDX files. Also since all section definitions in the DAT file are exported (deleted or active), deleted member information may be retrieved. Exporting deleted members can be both a benefit and a detriment depending upon the situation. The compress utility can be utilized to discard deleted members before exporting if only undeleted members are desired. Using these three tools, sections in libraries can be combined or compressed/deleted.

Section Library ASCII File Import Program (ACE_USI. MA)

(Current Versions - FWP 3.1.x.x rel 2.0.5 & FWP 7.0.x.x rel 7.0.5 & FWP 7.1/7.2/7.3 rel 6.0.5 & FWP 8.0.x.x rel 8.0.5 & FWP 9.0.x.x rel 9.0.5 & FWP 10.0.x.x rel 10.0.5 & FWP 11.0.x.x rel 11.0.5 & FWP 12.0.x.x rel 12.0.5)

The section library ASCII file import utility allows the creation of FrameWorks section library files from a ASCII file. The ASCII file must conform to a specific format. This utility creates FWP section library files (DAT & IDX extension) for each valid section in the ASCII file. This utility will not write to or in any way change an existing library or ASCII file.

This utility is utilized by first selecting a ASCII section library file to be imported. The utility reads each section in the ASCII library file and creates a entry in both the new DAT & IDX files. A new library prefix for the resulting DAT & IDX files must be supplied. If the DAT or IDX file exists, it will not be overwritten. In this case either select a new prefix or manually delete the offending file(s). The Create Library button is pressed and new DAT & IDX files are created. The new file is placed in the same location as the source ASCII library file.   The ASCII file is a free format where values (except the name & type) may be supplied in any order. Each value is preceded by the property name and then the value. The companion ASCII file export program creates valid ASCII files from existing FWP section libraries.   The companion compression utility removes deleted members from FrameWorks libraries. Using these three tools, sections in libraries can be combined or compressed/deleted. In addition, the properties of individual sections can be easily modified (i.e. names or section properties). Finally, the export/import utilities can be utilized to re-create missing IDX files.

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Sample Exported Library ASCII File

The following file will be generated as shown when the product delivered ASIC63.dat section library file is exported with the section library export utility. Note that this file was dramatically shortened to conserve paper by removing may of the exported section values. Note that each section is typically exported on 5 lines. If zero values exist, fewer lines may be required as zero values are not exported.

```
UNITS inch  English
WSEC "36WF300"  d 36.719986 bf 16.654999 tf 1.679996 tw 0.945000 area 88.169968 daf 1.309998 -
 xk 1.679996  cen_x 8.326999 eo_x 8.327500 rxx 15.169996 sa_x 37.307098 sxx 1105.099610 -
 zxx 1243.350616  qxx 621.675308 ixx 20290.195300 cen_y 18.359940 eo_y 18.359993 ryy 3.729999 -
 sa_y 34.700363  syy 147.099991 zyy 123.950926 qyy 61.975463 iyy 1225.199220 peri 138.169968 -
 rt 4.414160  prncpl_ix 20290.195300 prncpl_iy 1225.199220 ip 21515.394520 xj 68.799988 -
 pd 36.719986  pw 16.654999 cw 397062.420696 fyp 65.000000 fyppp 43.744640 dtw 38.857128 -
 btf 4.956857  nt 1 mnhl 7 mxhl 11 flag 1
WSEC "36WF280"  d 36.500000 bf 16.594986 tf 1.569999 tw 0.885000 area 82.319962 daf 1.400000 -
 xk 1.569999  cen_x 8.296999 eo_x 8.297493 rxx 15.120000 sa_x 34.738785 sxx 1031.199220 -
 zxx 1156.296992  qxx 578.148496 ixx 18819.296900 cen_y 18.250000 eo_y 18.250000 ryy 3.700000 -
 sa_y 32.302475  syy 135.899994 zyy 114.624000 qyy 57.312000 iyy 1127.500000 peri 137.609944 -
 rt 4.395962  prncpl_ix 18819.296900 prncpl_iy 1127.500000 ip 19946.796900 xj 56.429993 -
 pd 36.500000  pw 16.594986 cw 364767.386300 fyp 65.000000 fyppp 38.829970 dtw 41.242938 -
 btf 5.285031  nt 1 mnhl 7 mxhl 11 flag 1
WSEC "36WF260"  d 36.239975 bf 16.554993 tf 1.439999 tw 0.845000 area 76.559998 daf 1.519999 -
 xk 1.439999  cen_x 8.276999 eo_x 8.277496 rxx 15.000000 sa_x 31.785553 sxx 951.099854 -
 zxx 1064.700265  qxx 532.350132 ixx 17233.796900 cen_y 18.119980 eo_y 18.119987 ryy 3.650000 -
 sa_y 30.622757  syy 123.299988 zyy 104.619301 qyy 52.309651 iyy 1020.599610 peri 137.009922 -
 rt 4.370186  prncpl_ix 17233.796900 prncpl_iy 1020.599610 ip 18254.396510 xj 44.779999 -
 pd 36.239975  pw 16.554993 cw 329682.459927 fyp 65.000000 fyppp 35.909048 dtw 42.887544 -
 btf 5.748265  nt 1 mnhl 7 mxhl 11 flag 1
```

NOTE : Numerous section removed to reduce volume of documentation

```
WSEC "8M22"  d 8.000000 bf 5.394999 tf 0.35200 tw 0.37500 area 6.61000 daf 4.209998 xk 0.352000 -
 cen_x 2.697499  eo_x 2.697499 rxx 3.229999 sa_x 2.532051 sxx 17.099976 zxx 19.514319 qxx 9.75716 -
 ixx 68.299988  cen_y 4.000000 eo_y 4.000000 ryy 1.079999 sa_y 3.000000 syy 2.799999 zyy 2.817829 -
 qyy 1.408915  iyy 7.500000 peri 36.829996 rt 1.400141 prncpl_ix 68.299988 prncpl_iy 7.500000 -
 ip 75.799988  xj 0.320000 pd 8.000000 pw 5.394999 cw 134.710450 fyp 65.000000 fyppp 65.000000 -
 dtw 21.333333  btf 7.663351 nt 3 mnhl 2 mxhl 2 flag 1
WSEC "8M20"  d 8.000000 bf 5.36000 tf 0.305000 tw 0.350000 area 5.879998 daf 4.889999 xk 0.305000 -
 cen_x 2.679998  eo_x 2.68000 rxx 3.219998 sa_x 2.179731 sxx 15.199999 zxx 17.358345 qxx 8.679172 -
 ixx 60.699982  cen_y 4.000000 eo_y 4.000000 ryy 1.059999 sa_y 2.799999 syy 2.459998 zyy 2.416951 -
 qyy 1.208475  iyy 6.599999 peri 36.740000 rt 1.377975 prncpl_ix 60.699982 prncpl_iy 6.599999 -
 ip 67.299981  xj 0.240000 pd 8.000000 pw 5.360000 cw 115.877793 fyp 54.721350 fyppp 65.000000 -
 dtw 22.857143  btf 8.786885 nt 3 mnhl 2 mxhl 2 flag 1
WSEC "8M18"  d 8.000000 bf 5.25000 tf 0.352000 tw 0.230000 area 5.439999 daf 4.329999 xk 0.352000 -
 cen_x 2.625000  eo_x 2.62500 rxx 3.379998 sa_x 2.463998 sxx 15.500000 zxx 17.194322 qxx 8.597161 -
 ixx 62.099976  cen_y 4.000000 eo_y 4.000000 ryy 1.129998 sa_y 1.839999 syy 2.599999 zyy 2.521990 -
 qyy 1.260995  iyy 6.900000 peri 36.540000 rt 1.412839 prncpl_ix 62.099976 prncpl_iy 6.900000 -
 ip 68.999976  xj 0.200000 pd 8.000000 pw 5.250000 cw 124.138099 fyp 65.000000 fyppp 54.593627 -
 dtw 34.782609  btf 7.457386 nt 3 mnhl 2 mxhl 2 flag 1
WSEC "8M17"  d 8.000000 bf 5.25000 tf 0.305000 tw 2.400000 area 5.000000 daf 5.000000 xk 0.305000 -
 cen_x 2.625000 eo_x 2.62500 rxx 3.349999 sa_x 2.134997 sxx 14.000000 zxx 45.088879 qxx 22.544439 -
 ixx 56.000000 cen_y 4.00000 eo_y 4.000000 ryy 1.110000 sa_y 19.199982 syy 2.349999 zyy 12.743241 -
 qyy 6.371620  iyy 6.160000 peri 32.200000 rt 1.195713 prncpl_ix 56.000000 prncpl_iy 6.160000 -
 ip 62.160000  xj 0.150000 pd 8.000000 pw 5.250000 cw 108.888937 fyp 57.038458 fyppp 65.000000 -
 dtw 3.333333  btf 8.606557 nt 3 mnhl 2 mxhl 2 flag 1
```

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Sample Library ASCII File for Import

The following file can be utilized with the section library import utility to create a new section library file (.DAT & .IDX files). This file illustrates the specification of a minimum number for properties for the section types. The sample file provided with the product, AISC63N.TXT combines the dump of the AISC63.DAT library and the file shown below. Dump files can be easily combined with other dump files or with created files to create custom FrameWorks libraries. It is important to note that this utility WILL NOT COMPUTE any section properties - all properties must be provided or they will be ZERO. In general, FrameWorks needs very few properties, however if data is being transferred to analysis programs or other applications, the other properties may be very important. FrameWorks does compute a number (but not all the properties shown in the PROPDEF section in ensuing pages) of the section properties.

VALID IMPORT FILE

```
UNITS inch
CSEC    "MYCHANEL" d 14.0 bf 4.1  tw  .375  tf  .50  -
                   area  8.975  peri  43.65  cen_x 1.038 cen_y 7.0
LSEC    "MYANGLE" d 5.0  bf 3.0   tw .375  area 2.859 peri 16.0 cen_x .7039 cen_y 1.704
TSEC    "MYTEE"   d 5.0  bf 3.0   tw .375 tf .625 area 3.5156 peri 16.0 cen_x 1.5 cen_y 3.521
SR      "MYSR"    d 5.0  area 19.635 peri 15.708 cen_x 2.5 cen_y 2.5
PIPE    "MYPIPE"  d 5.0  tw .375  area 5.449 peri 15.708 cen_x 2.5 cen_y 2.5
TUBE    "MYTUBE"  d 5.0  bf 3.0   tw .375  area 5.4375 peri 16.0 cen_x 1.5 cen_y 2.5
STUBE   "MYSTUBE" d 5.0  bf 3.0   area 15.0 peri 16.0 cen_x 1.5 cen_y 2.5
JOIST   "MYJOIST" d 11.0 bf 21.0  tf 4.0 tw 3.0 xk 6.0 area 115.5 peri 61.318 cen_x 10.5 cen_y 7.606
HJOIST  "MYHJOI"  d 11.0 bf 10.0  tf 4.0 tw 3.0 xk 6.0 area 71.5 peri 39.616 cen_x 3.825 cen_y 6.748
INVL    "MYINVL"  d 11.0 bf 10.0  tw 6.0 tf 4.0 area 68.0 peri 42.0 cen_x 3.765  cen_y 6.736
INVTEE  "MYINVT"  d 11.0 bf 10.0  tw 6.0 tf 4.0 area 82.0 peri 42.0 cen_x 5.0   cen_y 4.817
```

ACE Section Library Utilities Documentation

Format Rules for Section Import Utility

- **NOTE that first record must start with either :**
  UNITS inch or UNITS mm - if not, file is considered INVALID

- **Records which start with a blank and are not part of a section definition are comments.**

- **Section definitions may be carried on to additional records by ending with a hyphen, - , (surrounded by blanks) and starting the next record with a blank. There is not limit to the number of records utilized for continuation.**

- **There is no limit to the number of sections which may be contained in an ASCII file.**

BASIC COMMANDS

UNITS unit_value
where :
  unit_value :   Must be either inch (for English units) or mm (for metric units). Must be the first line in the file or the file will be considered invalid. Only the first unit command will be processed - any additional unit commands will be considered invalid.

{SECTION} "section_name" {PROPDEF} propvalue {PROPDEF} propvalue   {PROPDEF} propvalue   -
*   {PROPDEF} propvalue   {PROPDEF} propvalue   {PROPDEF} propvalue   -*
*   {PROPDEF} propvalue {PROPDEF} propvalue*

where :
  {SECTION} :

WSEC	Wide Flange Shapes
CSEC	Channel Shapes
TSEC	Tee Shapes
LSEC	Angle Shapes
2LSEC	Double Angle Shapes
2CSEC	Double Channel Shapes
TUBE	Structural Tube Shapes
STUBE	Solid Rectangular Bar Shape
PIPE	Pipe Shapes
SR	Solid Round Bar Shape
JOIST	Concrete Framing Joist Shape
HJOIST	Concrete Framing Half Joist Shape
INVL	Concrete Inverted Angle Shape
INVTEE	Concrete Inverted Tee Shape

  "section_name" **:**   The section name must follow the keyword and must be enclosed in " " (24 char maximum)

ACE Section Library Utilities Documentation

Format Rules for Section Import Utility (continued)

{SECTION} "section_name" {PROPDEF} propvalue {PROPDEF} propvalue {PROPDEF} propvalue -
{PROPDEF} propvalue {PROPDEF} propvalue

where :
{PROPDEF} :

d	**section depth**
bf	**section width**
tw	**web thickness**
tf	**flange thickness**
cen_x	**centroid loc X**
cen_y	**centroid loc Y**
area	**cross section area**
peri	**perimeter**
x_bs	**back to back space**
xk	**tf + root radius (upper web thickness for JOIST & HJOIST)**
ra	root radius
btf	bf / (2 * tf)
fyp	Fy' flange
dtw	d / tw
fyppp	max Fy''' for compact web
rt	ry flg + 1/3 ry web
daf	d / af
ri	min. fillet radius
ixx	moment of inertia X
sxx	section modulus X
rxx	radius of gyration X
iyy	moment of inertia Y
syy	section modulus Y
ryy	radius of gyration Y
xj	torsion constant
zxx	plastic sect mod X
zyy	plastic sect mod Y
eo_x	shear center loc X
eo_y	shear center loc Y
rz	radius gyration - Z
pw	projected width
pd	projected depth
sa_x	shear area X
sa_y	shear area Y
tan_a	principally axis
cw	warping constant
qxx	moment of area - X
qyy	moment of area - Y
prncpl_ix	principle Ixx
prncpl_iy	principle Iyy
ip	polar I
ixy	Ixy
mnhl	d/6
mxhl	(d - 2 * k) / 3
nt	nt
flag	0 availability flag 1 built up sect

ACE Section Library Utilities Documentation

Format Rules for Section Import Utility (continued)

{PROPDEF} propvalue   {PROPDEF} propvalue
where :
  propvalue :   Valid property value for the value indicated

The property definitions follow the section name in any order however the property definition must always have a descriptor & value. The descriptor must always be exactly as shown above and must be in lowercase.

Property definitions may be carried onto additional records by terminating a record with a hyphen, - , (surrounded by blanks) and starting the next record with a blank. Each record is limited to 254 characters (thus multiple records are generally required)

It is recommended that all values be provided however only frameworks required values are mandatory.   Values are not computed or verified (i.e. area, perimeter etc is not computed).   All non-supplied values are 0.0

Minimum properties (mandatory properties)

STEEL SHAPES (CONCRETE WHERE DUPLICATE)

   For WSEC (I,S,M), CSEC (C,MC) & TSEC (WT,ST,MT)
      d, bf, tw, tf, area, peri, cen_x, cen_y are mandatory

   For LSEC (L)
      d, bf, tw, area, peri, cen_x, cen_y are mandatory

   For 2CSEC (2C or 2MC)
      d, bf, tw, tf, area, peri, cen_x, cen_y & x_bs are mandatory

   For 2LSEC (Double Angles)
      d, bf, tw, area, peri, cen_x, cen_y & x_bs are mandatory

   For STUBE (Solid Tube)
      d, bf, area, peri, cen_x, cen_y are mandatory

   For TUBE (Structural Tube)
      d, bf, tw, area, peri, cen_x, cen_y are mandatory

   For SR (Solid Round)
      d, area, peri, cen_x, cen_y are mandatory

   For PIPE
      d, tw, area, peri, cen_x, cen_y are mandatory

 CONCRETE SHAPES

   For INVL & INVTEE
      d, bf, tw, tf, area, peri, cen_x, cen_y are mandatory

   For JOIST & HJOIST
      d, bf, tw, tf, xk, area, peri, cen_x, cen_y are mandatory
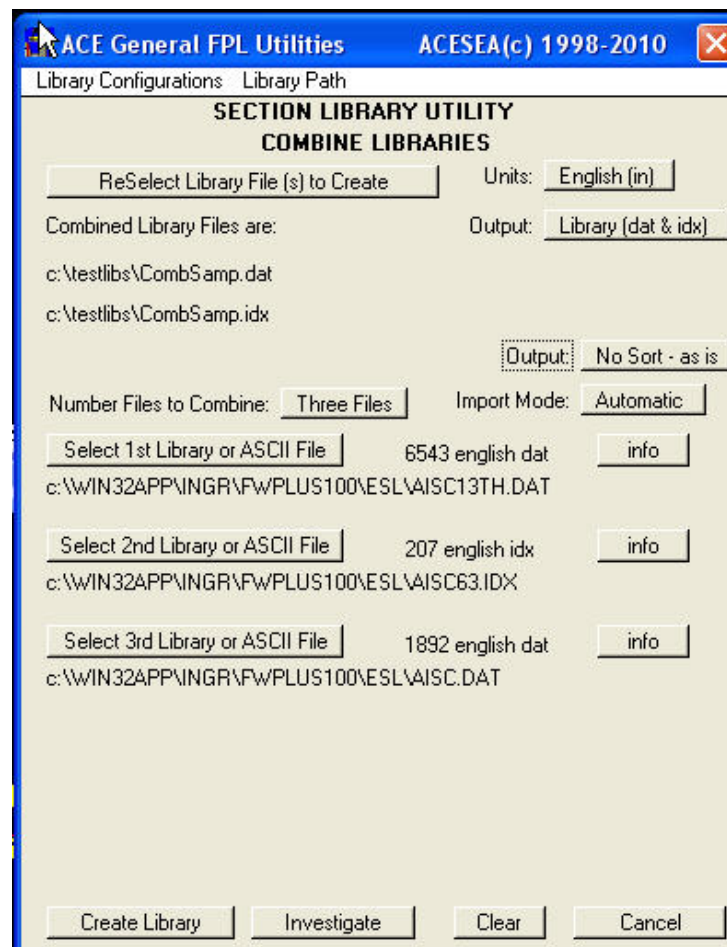   (note that xk is the upper web thickness)

   NOTE : Due to FWP bug a Trapezoidal shape cannot be defined at this time

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Combine Libraries Program (ACE_UCL.MA)

(Current Versions - FWP 3.1.x.x/3.2.x.x rel 2.0.0 & FWP 7.0.x.x rel 7.0.0 & FWP 7.1/7.2/7.3 rel 6.0.0 & FWP 8.0.x.x rel 8.0.0 & FWP 9.0.x.x rel 9.0.0 & FWP 10.x.x rel 10.0.0 & FWP 11.x.x rel 11.0.0 & FWP 12.x.x rel 12.0.0)

The *Combine Libraries* application can be utilized to rapidly combine existing FrameWorks Plus section libraries. There can be as few as 1 library and as many as 5 section libraries. The source of each section library may be either a library file (supplied or user created), an ASCII text file (ACESEA format) or a library file w/o index file (.dat file only). The resultant combined library may be in English or Metric and may be output as either: idx, dat & txt; or txt; or .dat & idx. During the combining process the profile records are processed such that .dat and .idx files are compressed (new file with no deleted profiles). The files are always processed from the first library to the last (min 1 – max 5) library. If a same name (near match or exact match) duplicate profile is found, the later profile is discarded if the Import Mode is Automatic. If the mode is Interrogate, you must select to keep either the first profile or the second profile manually for each near match found. As the interrogate option can get very slow, there is an option to accept this profile and revert to automatic mode. Finally, the output may be ordered: as is (no sorting) or Reverse sort or Forward sort (see page 10).
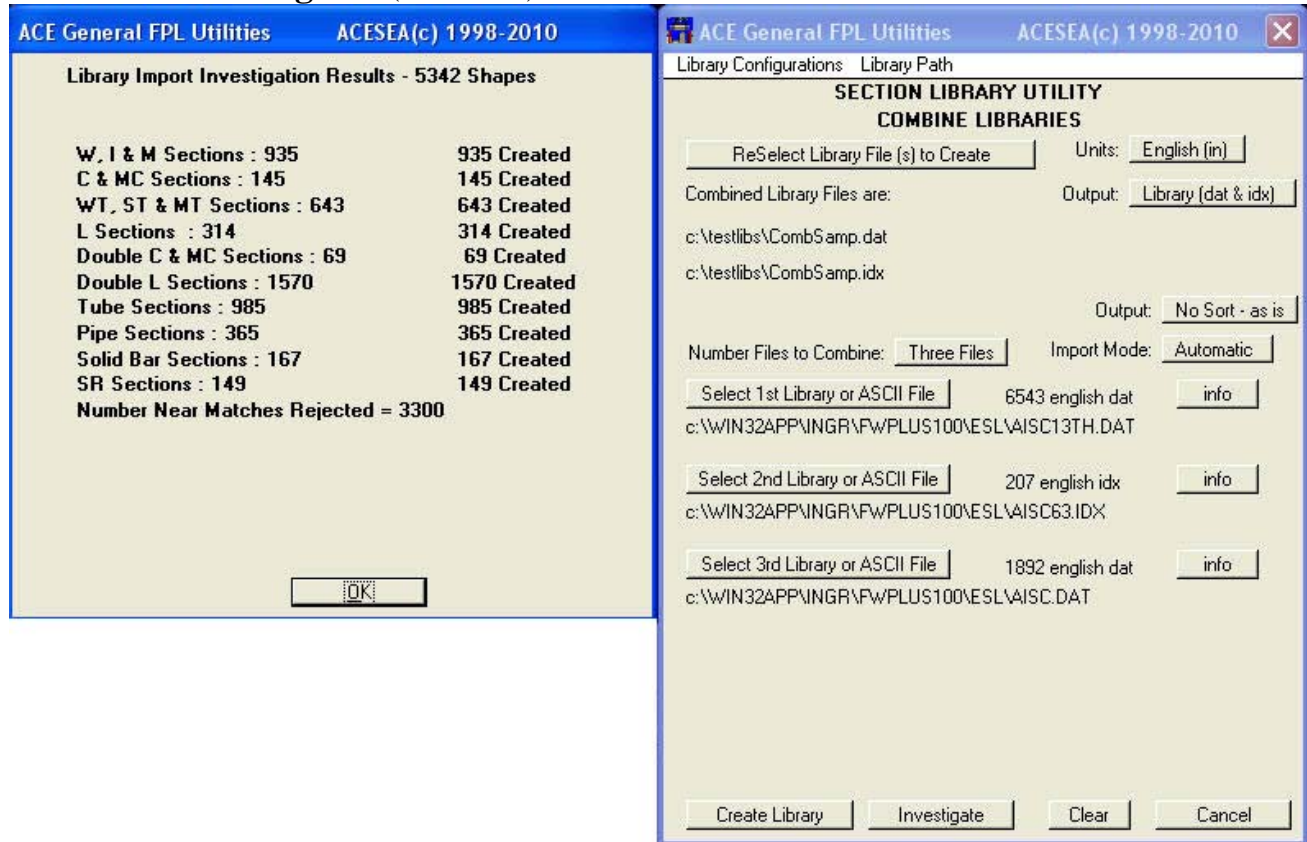

Combine Libraries Utility

This utility is utilized by first selecting from 1 to 5 libraries to be combined. Select the output units, output data file type(s), set output sorting & set import mode. The investigate option can be utilized to see what the combined file will be comprised of using the currently selected libraries & options. When ready, a combined section profile library file(s) can be output as a FWP library file (.dat & .idx) and/or a TXT file (.txt).   The next page shows the results of the "Investigate" button for the above three libraries.

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Combine Libraries Program (continued)

As can be seen for this case a total of 5342 profiles would be utilized to create a new library. A total of 3300 near matches (either a name match or an exact match) were rejected. When "Create Library" is pressed, the Combined Library file is written (a ASCII .res file is also written which contains info on rejected profiles & profile counts).

Output Sorting Options

There are three sorting option for the output file. The profiles are always sorted by type (WF, L etc), however this option provides sorting within types. Each sort techniques has it's good and bad features.

No Sort – as is: In his case the record are written ordered by profile type and then by order it was encountered. This is probably the most logical sort technique.

Forward Sort: In his case the records are written ordered first by type and then sub-ordered with a forward alphabetical sort.

Reverse Sort: In his case the records are written ordered first by type and then sub-ordered with a reverse alphabetical sort.

Configuration & Library Path Options

Library Configurations: Library configurations can be saved/retrieved. A library configuration can contain any or all of the following: name & path of file to be created; name & path of up to 5 library file(s), ACE_LIB_PATH definition; output units, output file type(s), output sort mode and import mode. This can be especially useful if it is often necessary to combine a specific set of user libraries. Library configurations have an .lcf extension.

Library Path: A path to location of library configuration files. The path can be defined with the variable ACE_LIB_PATH or it can be defined interactively. This is also the initial path to search for libraries and to deposit the combined library files. This variable is stored in LCF file if it is defined when LCF is saved.

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LOG FILES

All applications can write log files if the environment variable ACE_DUMP is set to 1. There have been reports that some sites lock the C root drive and under certain conditions a locked C drive can cause a system fault 5.

All applications have been modified to warn of a locked drive/file and then gracefully exit. All applications now look for the environment variable ACE_LOG_PATH. If it is found, that is the directory where the log files will be placed.   If the directory is locked or non-existent or if file is locked a warning will be given and the C drive will be tried. If it is locked or the file is locked a warning will be given and application will gracefully exit.

Usage of the variable ACE_LOG_PATH to control log file locations is similar to ACE_DEF_PATH to control DEF files. However there is one very important difference: ACE_LOG_PATH should NEVER point to a network drive (this is highly recommended for ACE_DEF_PATH). Everyone writes to the same named log file and if they are on a network drive there will be bad consequences. ALWAYS point ACE_LOG_PATH to a local drive (perhaps a temp off C root).