Populating the DDP Default Library

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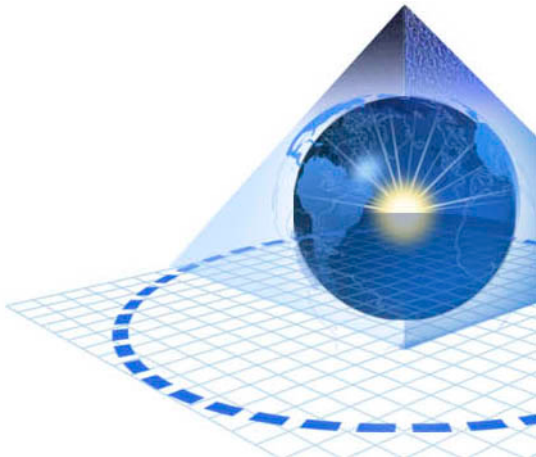
Reusing DDP Information

By Ron Jackson

Topics

- Engineering Data re-use
- Purpose of Default
- Default vs. Vendor
- Building Excel libraries
- Importing to Default Library
- Using the Default Library



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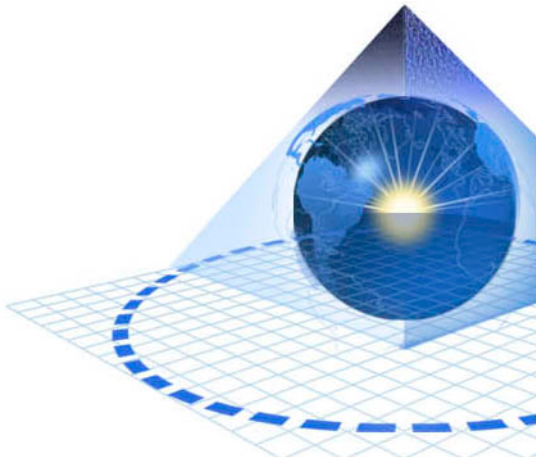
Engineering Data Re-use

- Previous project information sufficient as “Preliminary”.
- Library built from past projects. Kept in Excel.
- Less data entry by designers.
- Quicker transfer to piping for preliminary iso’s.



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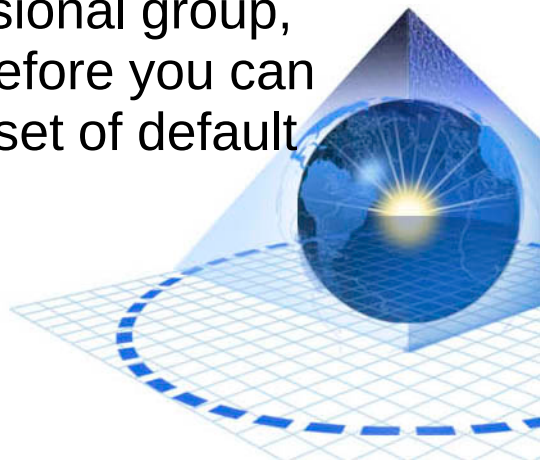
Default Dimensional Data

“This feature enables you to store and manage preliminary dimensional data for your instrumentation design. You can use standard (default) dimensions of known manufacturers who are likely to supply the instruments. This Default data is stored in the Default Library which allows you browse through the data, modify it, and copy it to the Working data as needed. Once sufficient Default data is available, the DDP designer can provide this data to the piping designers for their preliminary design. The Default data will then be replaced or modified according to the actual dimensional data received from the manufacturers.

Note that you must first define the appropriate dimensional group, the process connection data, and the manufacturer before you can start entering default data. Remember that only one set of default dimensional data can exist for a domain.”



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Default vs. Vendor Libraries

- Default Library - Store and manage preliminary dimensional data for your instrumentation design. You can use standard (default) dimensions of known manufacturers who are likely to supply the instruments.
- Vendor Library - Store and manage certified vendor dimensional data. Vendor data is used for data validation and verification purposes of dimensional data for piping design. You use Vendor data to certify the Working data prior to its release to piping.

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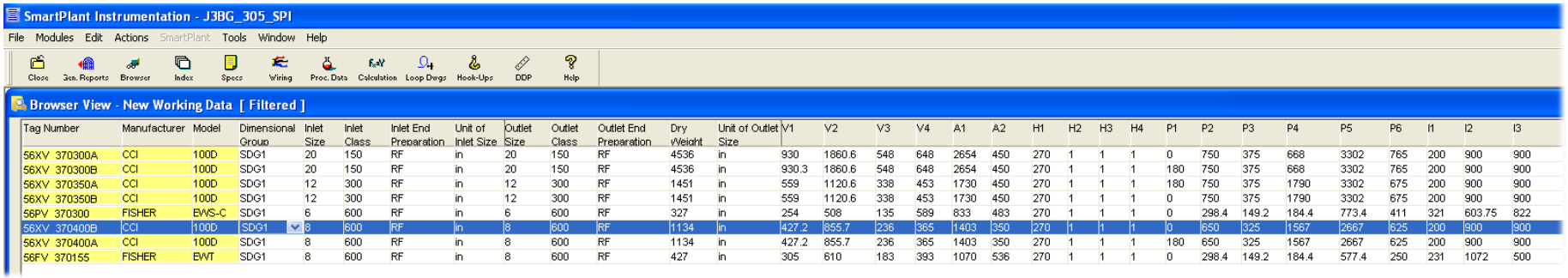
Building MS Excel Libraries

- Previous project information saved as MS Excel.



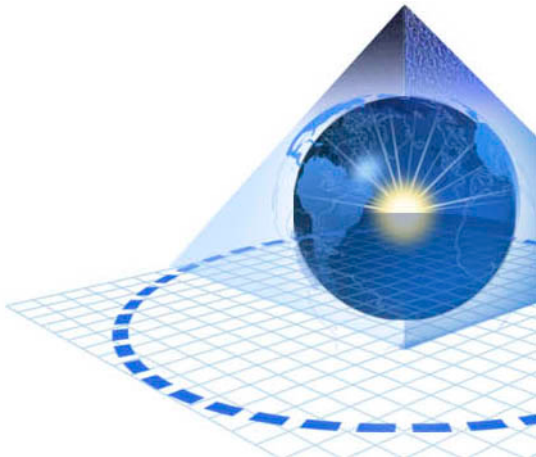
SmartPlant Instrumentation - J3BG_305_SPI

File Modules Edit Actions SmartPlant Tools Window Help

Close Gen. Reports Browser Index Specs Wiring Proc. Data Calculation Loop Dwgs Hook-Ups DDP Help

Browser View - New Working Data [Filtered]

Tag Number	Manufacturer	Model	Dimensional Group	Inlet Size	Inlet Class	Inlet End Preparation	Unit of Inlet Size	Outlet Size	Outlet Class	Outlet End Preparation	Dry Weight	Unit of Outlet Size	V1	V2	V3	V4	A1	A2	H1	H2	H3	H4	P1	P2	P3	P4	P5	P6	I1	I2	I3
56XV 370300A	CCI	100D	SDG1	20	150	RF	in	20	150	RF	4536	in	930	1860.6	548	648	2654	450	270	1	1	1	0	750	375	668	3302	765	200	900	900
56XV 370300B	CCI	100D	SDG1	20	150	RF	in	20	150	RF	4536	in	930.3	1860.6	548	648	2654	450	270	1	1	1	180	750	375	668	3302	765	200	900	900
56XV 370350A	CCI	100D	SDG1	12	300	RF	in	12	300	RF	1451	in	559	1120.6	338	453	1730	450	270	1	1	1	180	750	375	1790	3302	675	200	900	900
56XV 370350B	CCI	100D	SDG1	12	300	RF	in	12	300	RF	1451	in	559	1120.6	338	453	1730	450	270	1	1	1	0	750	375	1790	3302	675	200	900	900
56PV 370300	FISHER	EWS-C	SDG1	6	600	RF	in	6	600	RF	327	in	254	508	135	589	833	483	270	1	1	1	0	298.4	149.2	184.4	773.4	411	321	603.75	822
56XV 370400B	CCI	100D	SDG1	8	600	RF	in	8	600	RF	1134	in	427.2	855.7	236	365	1403	350	270	1	1	1	0	650	325	1567	2667	625	200	900	900
56XV 370400A	CCI	100D	SDG1	8	600	RF	in	8	600	RF	1134	in	427.2	855.7	236	365	1403	350	270	1	1	1	180	650	325	1567	2667	625	200	900	900
56FV 370155	FISHER	EWT	SDG1	8	600	RF	in	8	600	RF	427	in	305	610	183	393	1070	536	270	1	1	1	0	298.4	149.2	184.4	577.4	250	231	1072	500



Building MS Excel Libraries

- Dump added to library MS Excel file.
- Separate tabs for Imperial and Metric.
- Separate files for each Group.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
1															D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16	D17	D18	D19
2	TagNumber	Item	Rev	Manufacture	Model	Type	InlSize	InlClass	InlPrep	OutlSize	OutlClass	OutlPrep	Weight	UOM	V1	V2	V3	V4	A1	A2	H1	H2	H3	H4	P1	P2	P3	P4	P5	P6	I1	I2	I3
3	E-1-150		A	Fisher	ET 667 DVC w/ HW	SDG1	1	150	RF	1	150	RF	117	in	3.63	7.25	2.38	5.03	22.56	13.12	0	11.14	12	8.44	0	9.19	7.44	8.3	11.48	8.1	5	14	19.24
4	E-1-300		A	Fisher	ET 667 DVC w/ HW	SDG1	1	300	RF	1	300	RF	117	in	3.88	7.75	2.38	5.03	22.56	13.12	0	11.14	12	8.44	0	9.19	7.44	8.3	11.48	8.1	5	14	19.24
5	E-1-600		A	Fisher	ET 667 DVC w/ HW	SDG1	1	600	RF	1	600	RF	122	in	4.13	8.25	2.38	5.03	22.56	13.12	0	11.14	12	8.44	0	9.19	7.44	8.3	11.48	8.1	5	14	19.24
6	E-1.5-150		A	Fisher	ET 667 DVC w/ HW	SDG1	1.5	150	RF	1.5	150	RF	131	in	4.38	8.75	2.81	4.91	22.56	13.12	0	11.14	12	8.44	0	9.19	7.44	8.3	11.48	8.1	5	14	19.24
7	E-1.5-300		A	Fisher	ET 667 DVC w/ HW	SDG1	1.5	300	RF	1.5	300	RF	138	in	4.63	9.25	2.81	4.91	22.56	13.12	0	11.14	12	8.44	0	9.19	7.44	8.3	11.48	8.1	5	14	19.24
8	E-1.5-600		A	Fisher	ET 667 DVC w/ HW	SDG1	1.5	600	RF	1.5	600	RF	146	in	4.94	9.88	2.81	4.91	22.56	13.12	0	11.14	12	8.44	0	9.19	7.44	8.3	11.48	8.1	5	14	19.24
9	E-2-150		A	Fisher	ET 667 DVC w/ HW	SDG1	2	150	RF	2	150	RF	247	in	5.00	10	3.06	6.5	30.25	18.62	0	14.72	14	14.24	0	9.19	7.44	8.3	14.79	8.6	6.88	18.62	24.03
10	E-2-300		A	Fisher	ET 667 DVC w/ HW	SDG1	2	300	RF	2	300	RF	344	in	5.25	10.5	3.06	6.5	30.25	18.62	0	14.72	14	14.24	0	9.19	7.44	8.3	14.79	8.6	6.88	18.62	24.03
11	E-2-600		A	Fisher	ET 667 DVC w/ HW	SDG1	2	600	RF	2	600	RF	262	in	5.63	11.25	3.06	6.5	30.25	18.62	0	14.72	14	14.24	0	9.19	7.44	8.3	14.79	8.6	6.88	18.62	24.03
12	E-3-150		A	Fisher	ET 667 DVC w/ HW	SDG1	3	150	RF	3	150	RF	318	in	5.88	11.75	3.81	7.53	30.25	18.62	0	14.72	14	14.24	0	9.19	7.44	8.3	14.79	8.6	6.88	18.62	24.03
13	E-3-300		A	Fisher	ET 667 DVC w/ HW	SDG1	3	300	RF	3	300	RF	344	in	6.25	12.5	3.81	7.53	30.25	18.62	0	14.72	14	14.24	0	9.19	7.44	8.3	14.79	8.6	6.88	18.62	24.03
14	E-3-600		A	Fisher	ET 667 DVC w/ HW	SDG1	3	600	RF	3	600	RF	344	in	6.63	13.25	3.81	7.53	30.25	18.62	0	14.72	14	14.24	0	9.19	7.44	8.3	14.79	8.6	6.88	18.62	24.03
15	E-4-150		A	Fisher	ET 667 DVC w/ HW	SDG1	4	150	RF	4	150	RF	345	in	6.94	13.88	5.06	8.72	30.25	18.62	0	14.72	14	14.24	0	9.19	7.44	8.3	14.79	8.6	6.88	18.62	24.03
16	E-4-300		A	Fisher	ET 667 DVC w/ HW	SDG1	4	300	RF	4	300	RF	370	in	7.25	14.5	5.06	8.72	30.25	18.62	0	14.72	14	14.24	0	9.19	7.44	8.3	14.79	8.6	6.88	18.62	24.03
17	E-4-600		A	Fisher	ET 667 DVC w/ HW	SDG1	4	600	RF	4	600	RF	408	in	7.75	15.5	5.06	8.72	30.25	18.62	0	14.72	14	14.24	0	9.19	7.44	8.3	14.79	8.6	6.88	18.62	24.03
18	E-6-150		A	Fisher	ET 667 DVC w/ HW	SDG1	6	150	RF	6	150	RF	602	in	8.88	17.75	5.31	9.91	45.81	21.12	0	11.75	17.25	17.56	0	6.59	4.84	8.3	19.3	10.1	9.12	21.92	22.31
19	E-6-300		A	Fisher	ET 667 DVC w/ HW	SDG1	6	300	RF	6	300	RF	672	in	9.31	18.62	5.31	9.91	45.81	21.12	0	11.75	17.25	17.56	0	6.59	4.84	8.3	19.3	10.1	9.12	21.92	22.31
20	E-6-600		A	Fisher	ET 667 DVC w/ HW	SDG1	6	600	RF	6	600	RF	872	in	10.00	20	5.31	9.91	45.81	21.12	0	11.75	17.25	17.56	0	6.59	4.84	8.3	19.3	10.1	9.12	21.92	22.31
21	E-8-150		A	Fisher	ET 667 DVC w/ HW	SDG1	8	150	RF	8	150	RF	916	in	10.69	21.38	7.44	14.75	45.81	21.12	0	11.75	17.25	17.56	0	6.59	4.84	8.3	19.3	10.1	9.12	21.92	22.31
22	E-8-300		A	Fisher	ET 667 DVC w/ HW	SDG1	8	300	RF	8	300	RF	916	in	11.19	22.38	7.44	14.75	45.81	21.12	0	11.75	17.25	17.56	0	6.59	4.84	8.3	19.3	10.1	9.12	21.92	22.31
23	E-8-600		A	Fisher	ET 667 DVC w/ HW	SDG1	8	600	RF	8	600	RF	1086	in	12.00	24	7.44	14.75	45.81	21.12	0	11.75	17.25	17.56	0	6.59	4.84	8.3	19.3	10.1	9.12	21.92	22.31
24	E-1-150		A	Fisher	ET 667 DVC w/o HW	SDG1	1	150	RF	1	150	RF	117	in	3.63	7.25	2.38	5.03	22.56	13.12	0	0	0	0	0	9.19	7.44	8.3	11.48	8.1	5	14	19.24
25	E-1-300		A	Fisher	ET 667 DVC w/o HW	SDG1	1	300	RF	1	300	RF	117	in	3.88	7.75	2.38	5.03	22.56	13.12	0	0	0	0	0	9.19	7.44	8.3	11.48	8.1	5	14	19.24
26	E-1-600		A	Fisher	ET 667 DVC w/o HW	SDG1	1	600	RF	1	600	RF	122	in	4.13	8.25	2.38	5.03	22.56	13.12	0	0	0	0	0	9.19	7.44	8.3	11.48	8.1	5	14	19.24
27	E-1.5-150		A	Fisher	ET 667 DVC w/o HW	SDG1	1.5	150	RF	1.5	150	RF	131	in	4.38	8.75	2.81	4.91	22.56	13.12	0	0	0	0	0	9.19	7.44	8.3	11.48	8.1	5	14	19.24
28	E-1.5-300		A	Fisher	ET 667 DVC w/o HW	SDG1	1.5	300	RF	1.5	300	RF	138	in	4.63	9.25	2.81	4.91	22.56	13.12	0	0	0	0	0	9.19	7.44	8.3	11.48	8.1	5	14	19.24
29	E-1.5-600		A	Fisher	ET 667 DVC w/o HW	SDG1	1.5	600	RF	1.5	600	RF	146	in	4.94	9.88	2.81	4.91	22.56	13.12	0	0	0	0	0	9.19	7.44	8.3	11.48	8.1	5	14	19.24

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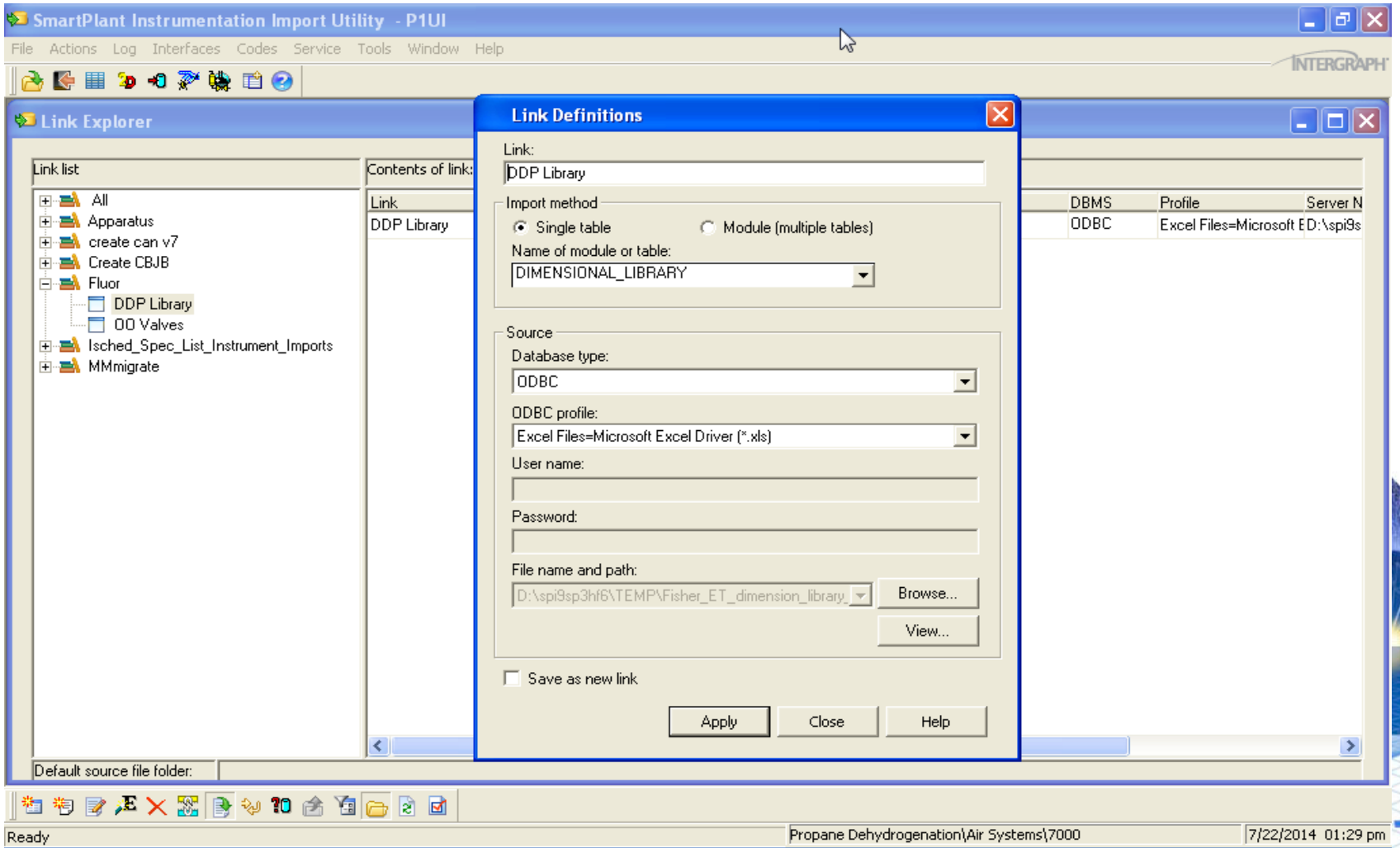
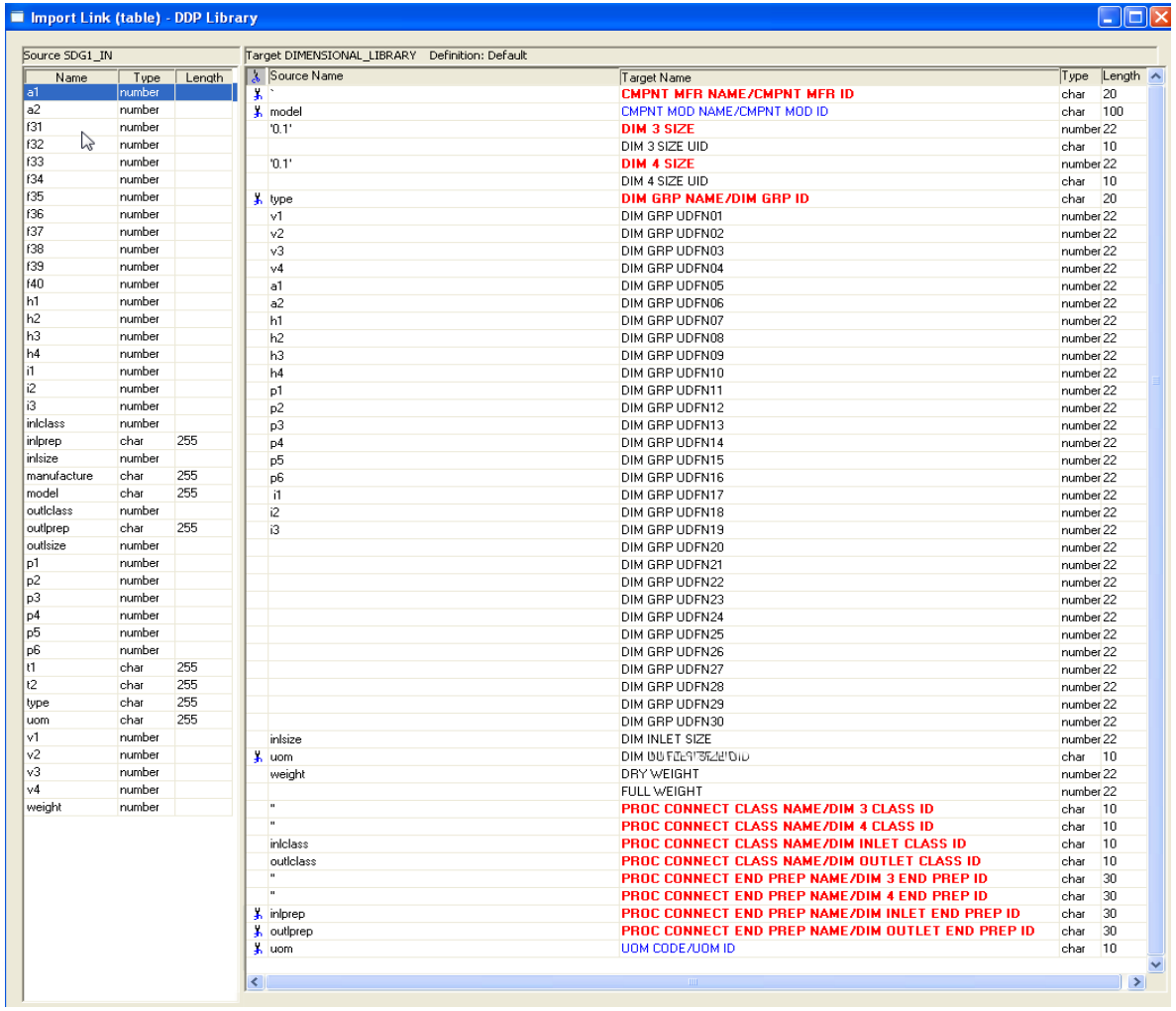
Importing to Default Library

- Creating the import link.



Importing to Default Library

- Mapping the import fields



Name	Type	Length
a1	number	
a2	number	
f31	number	
f32	number	
f33	number	
f34	number	
f35	number	
f36	number	
f37	number	
f38	number	
f39	number	
f40	number	
h1	number	
h2	number	
h3	number	
h4	number	
i1	number	
i2	number	
i3	number	
inlclass	number	
inlprep	char	255
inlsize	number	
manufacture	char	255
model	char	255
outlclass	number	
outlprep	char	255
outlsize	number	
p1	number	
p2	number	
p3	number	
p4	number	
p5	number	
p6	number	
t1	char	255
t2	char	255
type	char	255
uom	char	255
v1	number	
v2	number	
v3	number	
v4	number	
weight	number	

Source Name	Target Name	Type	Length
`	CMPNT MFR NAME/CMPNT MFR ID	char	20
model	CMPNT MOD NAME/CMPNT MOD ID	char	100
'0.1'	DIM 3 SIZE	number	22
	DIM 3 SIZE UID	char	10
'0.1'	DIM 4 SIZE	number	22
	DIM 4 SIZE UID	char	10
type	DIM GRP NAME/DIM GRP ID	char	20
v1	DIM GRP UDFN01	number	22
v2	DIM GRP UDFN02	number	22
v3	DIM GRP UDFN03	number	22
v4	DIM GRP UDFN04	number	22
a1	DIM GRP UDFN05	number	22
a2	DIM GRP UDFN06	number	22
h1	DIM GRP UDFN07	number	22
h2	DIM GRP UDFN08	number	22
h3	DIM GRP UDFN09	number	22
h4	DIM GRP UDFN10	number	22
p1	DIM GRP UDFN11	number	22
p2	DIM GRP UDFN12	number	22
p3	DIM GRP UDFN13	number	22
p4	DIM GRP UDFN14	number	22
p5	DIM GRP UDFN15	number	22
p6	DIM GRP UDFN16	number	22
i1	DIM GRP UDFN17	number	22
i2	DIM GRP UDFN18	number	22
i3	DIM GRP UDFN19	number	22
	DIM GRP UDFN20	number	22
	DIM GRP UDFN21	number	22
	DIM GRP UDFN22	number	22
	DIM GRP UDFN23	number	22
	DIM GRP UDFN24	number	22
	DIM GRP UDFN25	number	22
	DIM GRP UDFN26	number	22
	DIM GRP UDFN27	number	22
	DIM GRP UDFN28	number	22
	DIM GRP UDFN29	number	22
	DIM GRP UDFN30	number	22
inlsize	DIM INLET SIZE	number	22
uom	DIM [illegible]	char	10
weight	DRY WEIGHT	number	22
	FULL WEIGHT	number	22
"	PROC CONNECT CLASS NAME/DIM 3 CLASS ID	char	10
"	PROC CONNECT CLASS NAME/DIM 4 CLASS ID	char	10
inlclass	PROC CONNECT CLASS NAME/DIM INLET CLASS ID	char	10
outlclass	PROC CONNECT CLASS NAME/DIM OUTLET CLASS ID	char	10
"	PROC CONNECT END PREP NAME/DIM 3 END PREP ID	char	30
"	PROC CONNECT END PREP NAME/DIM 4 END PREP ID	char	30
inlprep	PROC CONNECT END PREP NAME/DIM INLET END PREP ID	char	30
outlprep	PROC CONNECT END PREP NAME/DIM OUTLET END PREP ID	char	30
uom	UOM CODE/UOM ID	char	10

Populated Default Library

- Some “tweaking” may be necessary
- Clearing of Default library recommended at EOP

Dimensional Data for Piping Module | Default Data- All Groups

Manufacturer	Model	Group	Inlet Size	Unit of Inlet Size	Inlet Class	Inlet End Prep	Inlet End Prep Design Code	Outlet Size	Unit of Outlet Size	Outlet Class	Outlet End Prep	Outlet End Prep Design Code	Dry Weight	Full Weight	Unit of Measure
Fisher		SDG1	1	in	300	RF	ASME-B16.5	1	in	300	RF	ASME-B16.5	117		lb
Fisher		SDG1	1.5	in	300	RF	ASME-B16.5	1.5	in	300	RF	ASME-B16.5	138		lb
Fisher		SDG1	2	in	300	RF	ASME-B16.5	2	in	300	RF	ASME-B16.5	344		lb
Fisher		SDG1	3	in	300	RF	ASME-B16.5	3	in	300	RF	ASME-B16.5	344		lb
Fisher		SDG1	4	in	300	RF	ASME-B16.5	4	in	300	RF	ASME-B16.5	370		lb
Fisher		SDG1	6	in	300	RF	ASME-B16.5	6	in	300	RF	ASME-B16.5	672		lb
Fisher		SDG1	8	in	300	RF	ASME-B16.5	8	in	300	RF	ASME-B16.5	916		lb
Fisher		SDG1	1	in	600	RF	ASME-B16.5	1	in	600	RF	ASME-B16.5	122		lb
Fisher		SDG1	1.5	in	600	RF	ASME-B16.5	1.5	in	600	RF	ASME-B16.5	146		lb
Fisher		SDG1	2	in	600	RF	ASME-B16.5	2	in	600	RF	ASME-B16.5	262		lb
Fisher		SDG1	3	in	600	RF	ASME-B16.5	3	in	600	RF	ASME-B16.5	344		lb
Fisher		SDG1	4	in	600	RF	ASME-B16.5	4	in	600	RF	ASME-B16.5	408		lb
Fisher		SDG1	6	in	600	RF	ASME-B16.5	6	in	600	RF	ASME-B16.5	872		lb
Fisher		SDG1	8	in	600	RF	ASME-B16.5	8	in	600	RF	ASME-B16.5	1086		lb
Fisher	8580D/2052	SDG1	1	in	150	RF	ASME-B16.5	1	in	150	RF	ASME-B16.5	117		lb
Fisher	8580D/2052	SDG1	1.5	in	150	RF	ASME-B16.5	1.5	in	150	RF	ASME-B16.5	131		lb
Fisher	8580D/2052	SDG1	2	in	150	RF	ASME-B16.5	2	in	150	RF	ASME-B16.5	247		lb
Fisher	8580D/2052	SDG1	3	in	150	RF	ASME-B16.5	3	in	150	RF	ASME-B16.5	318		lb
Fisher	8580D/2052	SDG1	4	in	150	RF	ASME-B16.5	4	in	150	RF	ASME-B16.5	345		lb
Fisher	8580D/2052	SDG1	6	in	150	RF	ASME-B16.5	6	in	150	RF	ASME-B16.5	602		lb
Fisher	8580D/2052	SDG1	8	in	150	RF	ASME-B16.5	8	in	150	RF	ASME-B16.5	916		lb

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Questions