

1.

2

LO1        ———

LO2        ———

LO3        /        ———

LO4        ———

LO5               ———

LO6               ———

LO7               ———

LO8      ——

LO9      ——

LO10    ——

LO11    ——

LO12    ——

**3**

1

2

OD

3

4

5

TransCAD

GIS   CAD

(HintCAD)

ANASYS

Midas

6

1.

1

2

3

2

4

3~6

1.

2

3

			32		40	2.5		
	40	2.5		40	2.5			24
1.5			40	2.5			32	2
		56	3.5			48	3	
	32	2			32	2		CAD 24
1.5			24	1.5			1.5	
	32	2			1.5			
			46.5			2		1.5
				2				2
	CAD	1.5		2				3
	2				2			B 1.5
		1.5			1.5			1.5
		1.5				2		
	1.5					1.5		
	2				1.5			1.5
		1.5			2			1.5

2

2

2

	1	2	3	4	5	6	7	8	9	10	11	12
A												
B												
B												

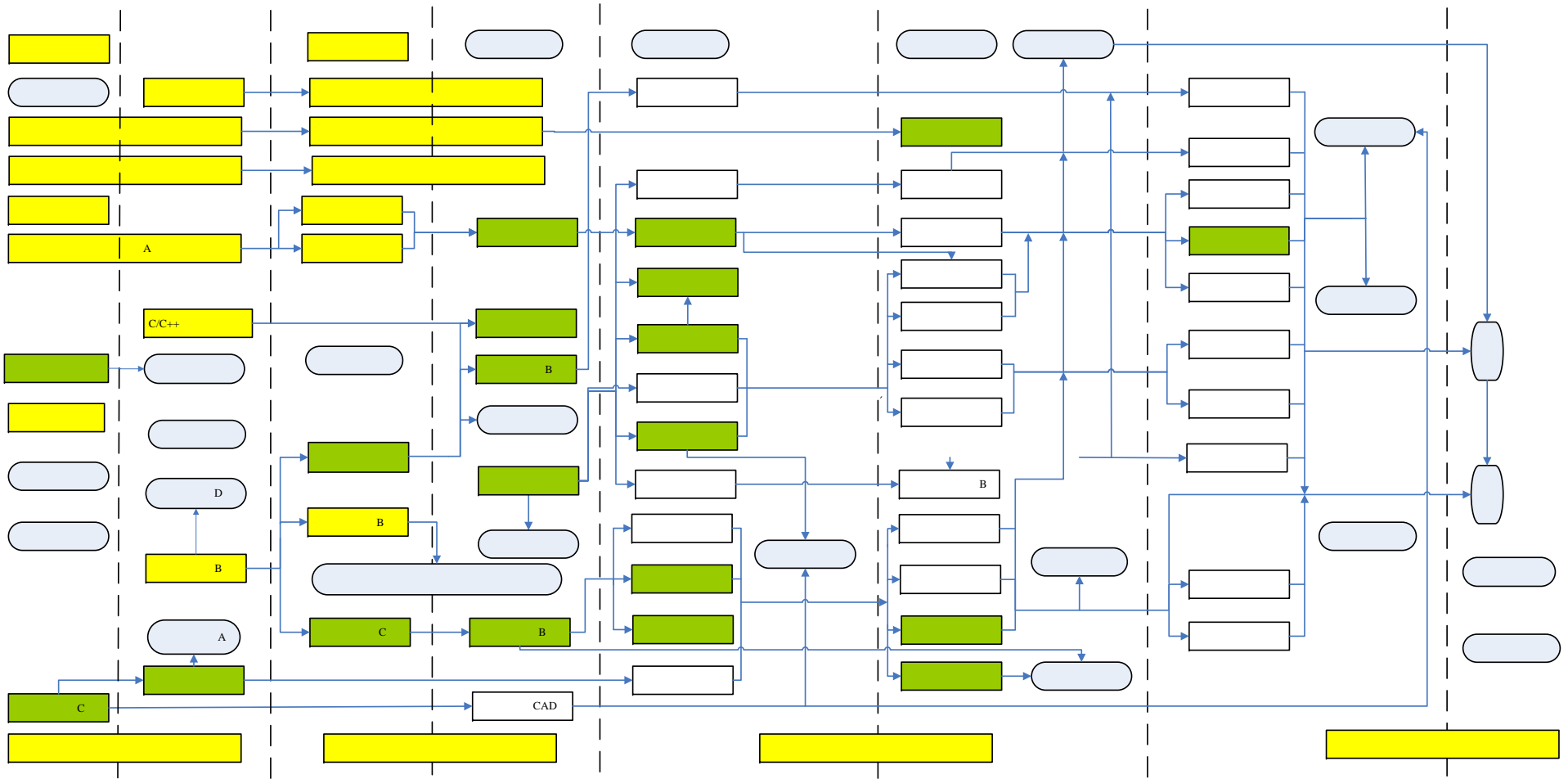
C/C++												
C												
B												
C												
B												
B												

CAD													



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1.

2.

190

149.5

40.5

4

9

6

3.

1

2

3

4

5

6

7

8

9

10

11

12

										1	2	3	4	5	6	7	8		
1201111B 1201121B 1201131B 1201141B 1201151B 1201161B 1201171B 1201181B		O	(128 )	(64)			(64)	2		0.25	0.25	0.25	0.2 5	0.2 5	0.2 5	0.2 5	0.2 5	1-17	
1500011B 1500021B 1500031B 1500041B			176	160			16	10	1	2.5	2.5	2.5	2.5					1-17	
5100041B 5100051B 5100061B 5100071B			144	144			256 ( )	2	1	0.5	0.5	0.5	0.5					1-16	

1200141B

1200151B

1200081B			40	32			8	2	0.5			2						1-16
1200051B			48	32			16	2	1	2								1-17
5200011B		O	32	24			8	1.5		1.5								1-8
5200021B			32	24			8	1.5		1.5								9-17
1400211B 1400221B	A		192	192				12		6	6							1-17
1000231B 1000241B	B		116	112	4			7			3	4						1-16
1400071B			40	40				25				25						1-16
1400091B			48	48				3				3						1-17
0500101B	C/C+	+	48	24		24		3			3							1-16
			0					0										
			1052	920	4	24	104	54	6.5	14.25	17.25	16.75	4.75	0.25	0.25	0.25	0.25	

											1	2	3	4	5	6	7	8		
0700032B	C			40	40			2 5				2 5						1-17		
0700052B	B			64	56	8		4				4					1-17			
1710102B				48	48			3						3			1-8			
0200051B	C			48	48			3		3							1-17			
1710022B				40	28		12	2 5					2 5				1-15			
0400012B				48	32	16		3				3					1-10			
0400152B				56	40	16		3 5					3 5				1-17			



	B																		
1710142B			0	8	8			0.5		0.5									1-8
1719032B				32	32			2					2						1-6
0700122B				40	32	8		2.5		3									1-15
1710342B				24	24			1.5					1.5						1-17
1710442B				48	36	12		3					3						1-16
1710532B				56	48	8		3.5					3.5						1-17
1700012B				40	40			2.5					2.5						1-16
1710632B				48	48			3					3						1-8



											1	2	3	4	5	6	7	8			
1713030X					32	32			2						2					1-17	
1713130X					24	24			1.5							1.5				9-16	
1701030X					32	28	4		2						2					9-16	
170020X					32	28	4		2								2			1-8	
1713230X					32	32			2								2			9-16	
1713430X					32	32			2							2				1-17	
1713530X					24	24			1.5							1.5				1-8	
1713630X					24	24			1.5								1.5			9-15	
1711032B					48	40	8		3						3					1-15	
1710200X					32	32			2							2				1-17	
1710210X					24	24			1.5							1.5				9-16	

1710220X				24	16		8		1.5							1.5			1-9
1713830X				32	32				2					2					1-8
1700030X				32	32				2						2				1-8
1713930X	CAD			24	8		16		1.5				1.5						1-8
0808020X	B			24	24				1.5						1.5				9-16
1714130X				24	24				1.5							1.5			9-16
1714230X				24	12	12			1.5						1.5				1-8
1701020X				24	24				1.5							1.5			9-16
1700050X				24	24				1.5							1.5			1-8
1700040X				32	24	8			2							2			1-16
1714930X				24	24				1.5							1.5			9-16
1710230X				24	24				1.5				1.5						1-8
1710240X				32	32				2					2					9-16
1714830X				24	20	4			1.5						1.5				9-16
				704	640	40	24	0	44	0	0	0	0	1.5	12.5	15	15	0	
				0					23.5						7	9	7.5		



							1	2	3	4	5	6	7	8	
5700013B		O	0.5			0									1-3
5200023B		O	2			2	2								1-4
5700023B 5700033B 5700043B 5700053B 5700063B 5700073B 5700083B 5700093B		O	1			0									
5600013B		O	8			0.5					0.5				9-16
1710013B		O	4			4							4		1-6
1000013B 1000023B		O		48		2			1	1					9-16
5300053B		O	1			1			1						9-16
5300043B	D	O	1			1		1							
0700013B	A	O	2			2		2							15-17
1717143B		O	2			2			2						19-20
1717253B		O	2			2				2					21-22
1717343B		O	2			2					2				19-20
1717443B		O	1			1					1				9-12
1717553B		O	2		30	2							2		9-15
1717643B		O	2			2							2		9-15
1717743B		O	2			2								2	1-4
1717843B		O	14			14								14	1-14
1717943B		O	1			1		1							19-20

				1	2	3	4	5	6	7	8		
			948	60.5	15.75	18.75	18.75	6.25	0.25	0.25	0.25	0.25	32%
			144	9			1	2	2	3	1		5%
			800	50.5	3.5	3	5.5	14.5	14.5	8	1.5	0	27%
			384	23.5	0	0	0	0	7	9	7.5	0	12%
			96	6	2			0	0	2	2		3%
	4		39.5	40.5	2	4	1	4	2	3.5	4	20	21%
			2372	190	23.25	25.75	26.25	26.75	25.75	25.75	16.25	20.25	100%
			190										