

I mprove Engineering decision MakinG



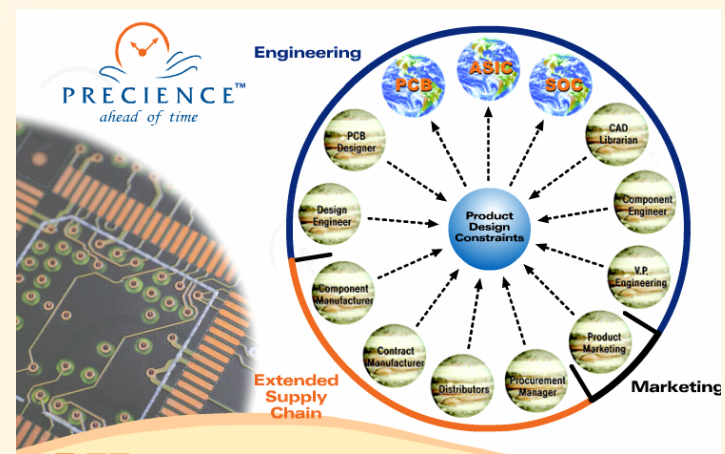
Library Component Data Obsolescence Management

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Design Supply Chain™ Solutions



Plan Ahead With Proactive Component Lifecycle Management Process





What is Proactive Component Lifecycle Management ?

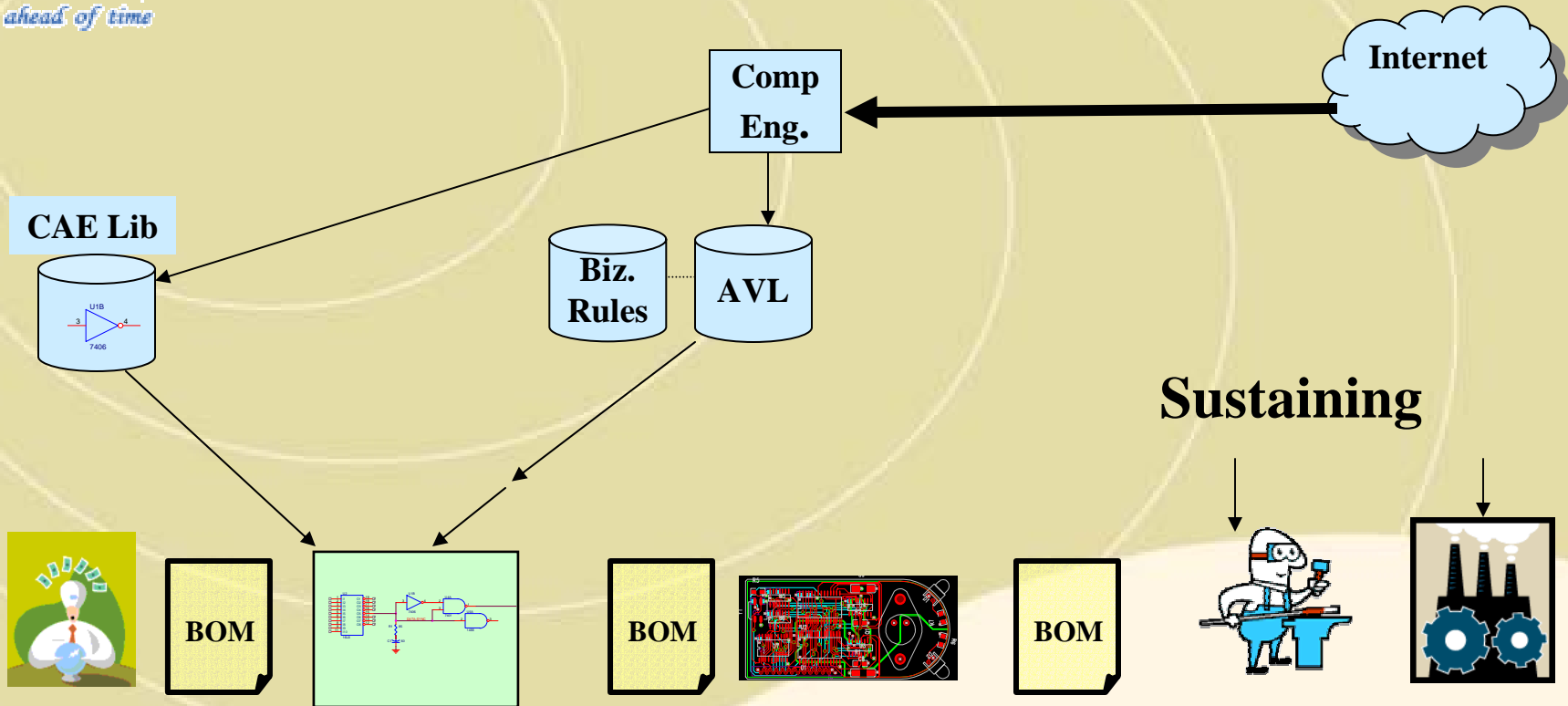
- **Real time component and supply chain updates to an existing part database**
- **Real Time Lifecycle & HAZMAT data within the design process**
- **Business rule driven decision support information network for design engineers to supplement the library**
- **Track Status changes on parts that are in design or in use**



Component Management Needs

- ◆ Access an electronics component database to reduce time spent on researching, qualifying and finding appropriate components based on company business rules for a new design.
- ◆ Find suitable alternates and substitutes for replacement parts that have gone obsolete or not available anymore.
- ◆ Identify parts with multiple sources, alternate supplies and avoid sole source
- ◆ Improve a product lifecycle costs by being proactive and introduce lifecycle data within a design process, hence reduce redesigns/rework.
- ◆ Need a proactive obsolescence management system which Monitor AVLs, and BOM from the CM system real time.
- ◆ Audit design engineers submitted BOM, using BOM analysis tools for component engineering & provide schematic analysis tools as well to the design engineers.
- ◆ Need real time data integration with existing Supply Chain systems to reduce inventory costs and design rework.

Cost of a Component Change

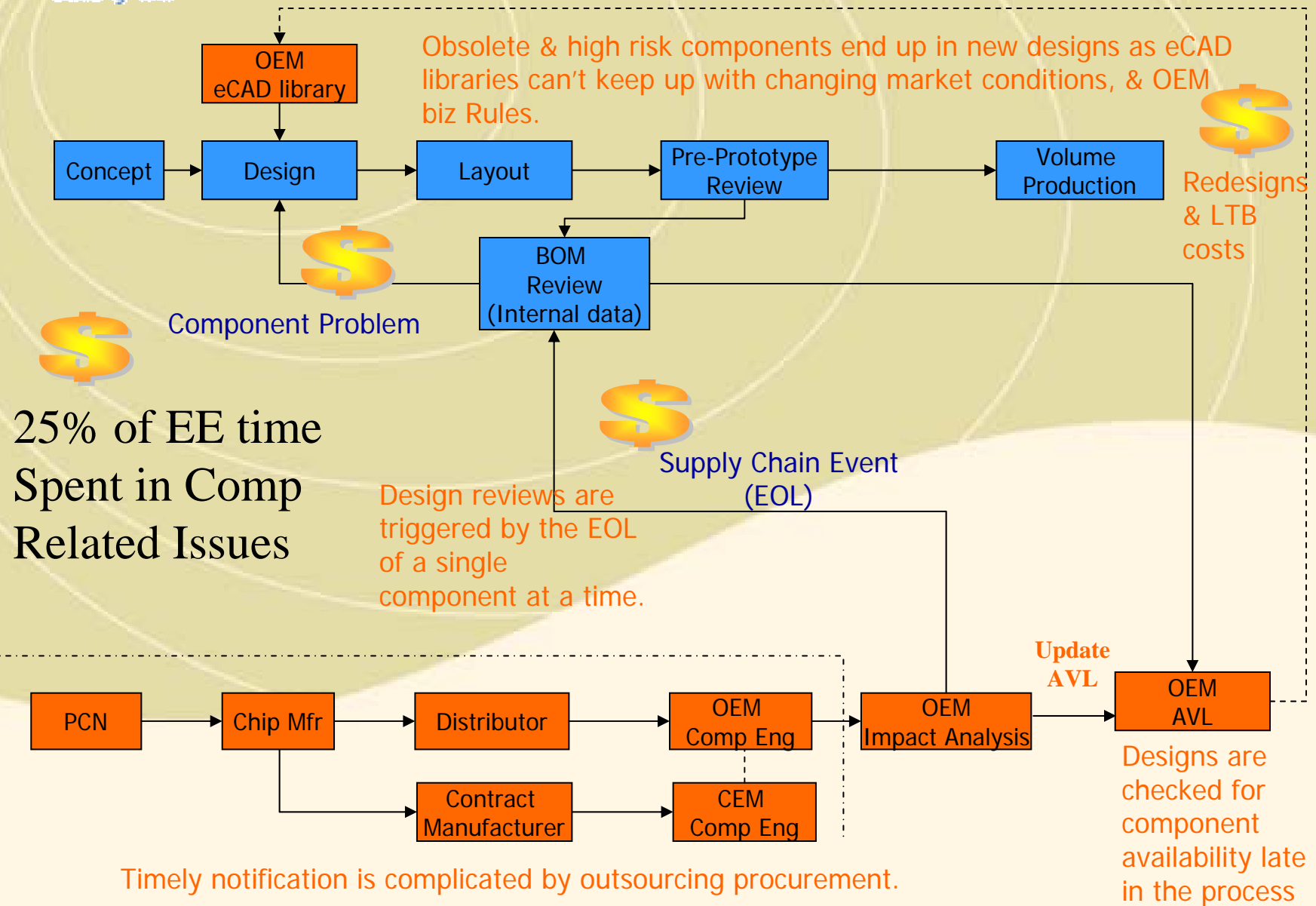


Product Life Cycle Time Line

Concept	BOM Review	Schematic Design	BOM Review	PCB/CAD Design	BOM Review	Build Test	Volume Production
\$10	\$10	\$100	\$100	\$1000	\$1000	\$10K	\$100K+

Cost of Change

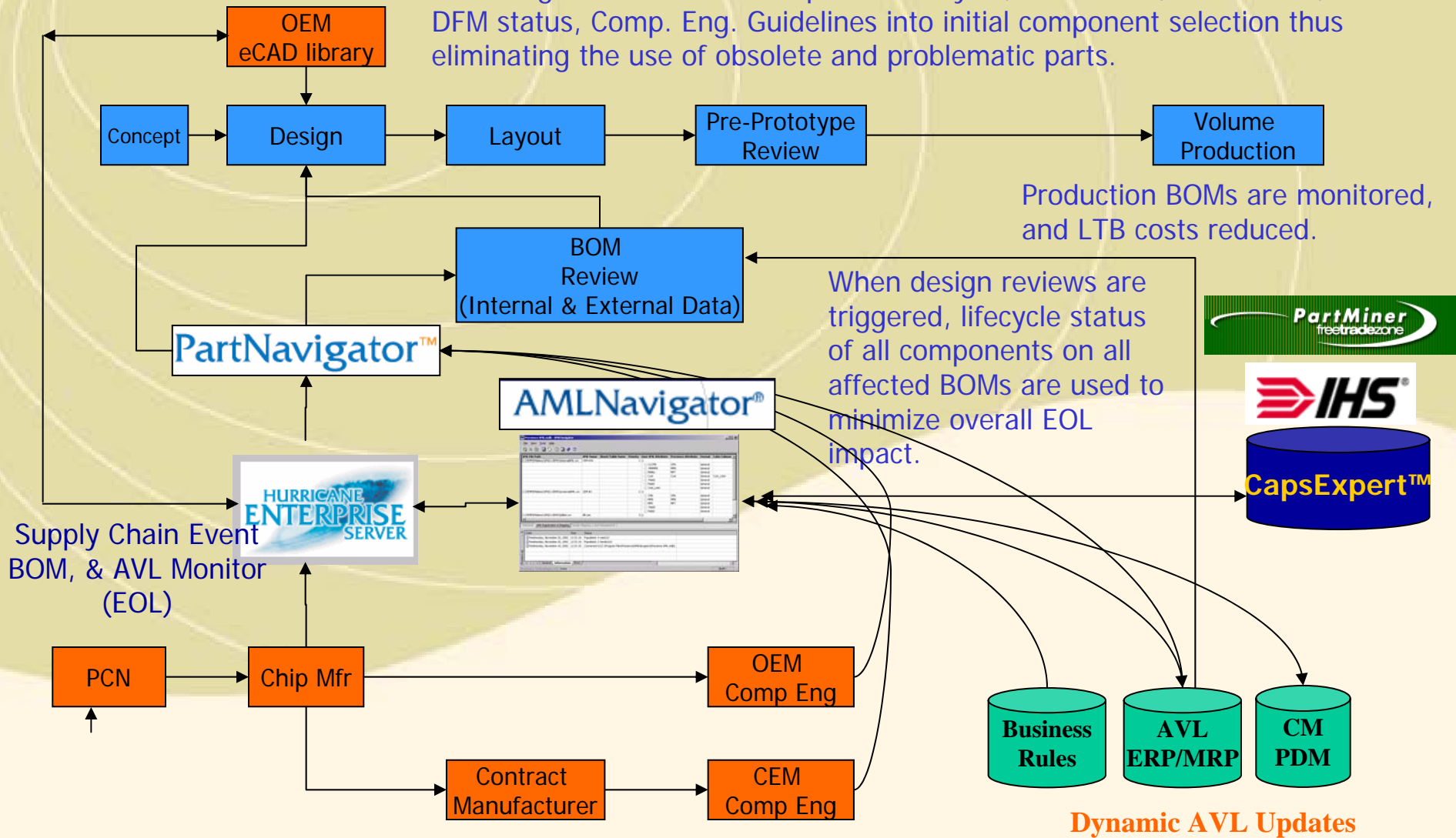
Reactive Design Process





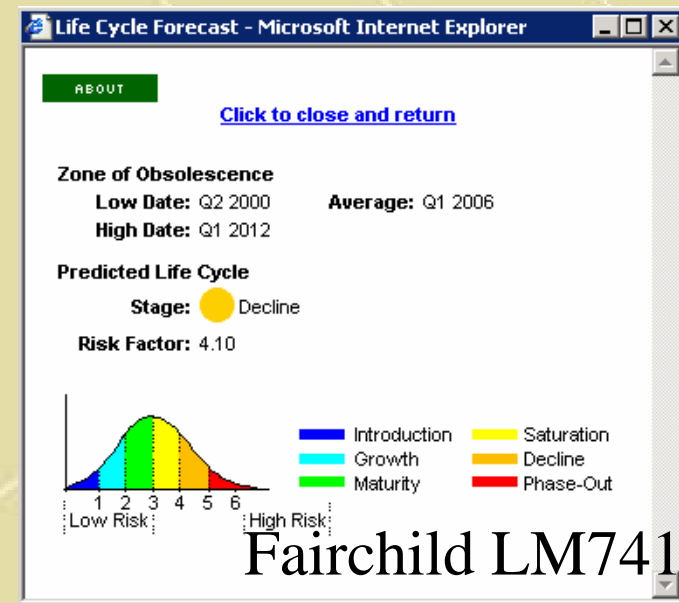
Proactive Design & Sustaining Process

PartNavigator introduces component lifecycle, AVL Status, CEM status, DFM status, Comp. Eng. Guidelines into initial component selection thus eliminating the use of obsolete and problematic parts.

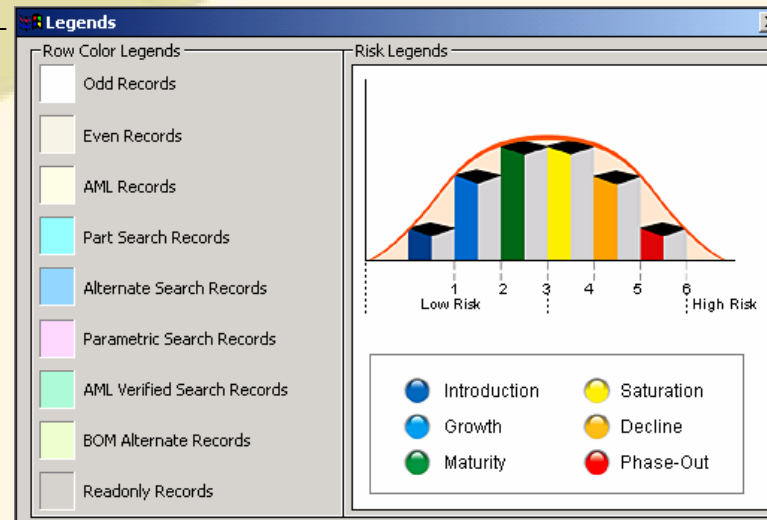


Predictive Analysis output

- YEOL predicted in real time
- Min/Max years resolved
- Lifecycle Stage Calculation
- Cover all of active devices



Risk Rating on Parts





PCN/PDN, and EOL lookup

Click on EOL/PCN and you will see the complete information with historical data. One click and add to your database. Web link to all PCN/PDN documents can be loaded into your database.

PartNavigator - Sample BOM.csv

File Edit View Tools Window Help

LMV921m5

PCN/EOL View

	CPN	MPN	MFR	Title	Notice	NoticeDate	LastOrder	LastShip	ReplPart
1	NPR_0	LMV921M5	National	EOL					
1.1				PRODUCT DISCONTINUE NO... H852WMWF, 6 April 2003,	E0083102	08/13/2002	05/31/2002	05/31/2002	LMV931MF
1.2				...update to the product discontinuance notification dated May	E0080996	06/10/2002	05/31/2002	05/31/2002	LMV931
1.3				PRODUCT DISCONTINUA... 54ACT169DMQB May 31, 2002	E0083098	05/31/2002	05/31/2002	05/31/2002	
1.4				PROD...: 54ACT, CLC, COP8, CR16M, LM, SC1440 SERIES	E0083107	05/21/2002	05/31/2002	05/31/2002	
1.5				... 54ACT, CLC, COP8S, CR16M, LMV, LMX, SC1440 SERIE	E0083103	05/17/2002	05/31/2002	05/31/2002	
2	NPR_0	LMV921M5	National	PCN					
2.1				FINAL CHANGE NOTIFICATION:20023902 Rev D	C0081614	06/04/2002			

ePartExplorer View

	AVL	CEM	bklist	BizRule	CPN	MPN	MFR	Status	LastOrder	DataShee
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NPR_0	LMV921m5				
Got 1 Record[s]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PRN103	LMV921M5	National Semiconductor Corp	DISCONTINUED	05/31/2002	D3000231
1.2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		LMV921M5X	National Semiconductor Corp	DISCONTINUED	05/31/2002	D3000231
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	123					
2.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	123	LM124JD	Motorola Semiconductor Products Inc			
2.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	123	LM124AJ/883	National Semiconductor Corp			
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	234					

Bom View

	AVL	CEM	bklist	BizRule	CPN	MPN	Qty	MFR	Status	LastOrder	DataSheet	Package
1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	123							
1.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	123	LM124JD		Motorola Semiconductor Products Inc				
1.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	123	LM124AJ/883		National Semiconductor Corp				
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	234							
2.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	234	XPC860ENZP80D3		Motorola Semiconductor Products Inc				
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PRN100							

Bom View | ePartExplorer View | **PCN/EOL View**

Ready NUM



Business Rule Driven Real Time Information Network

Select Components Based on Internal & External Supply Chain & Business Rules

AVL info Obsolete Biz Rule driven: FFF, Alternates Preferred Supplier Alternates Others FFF

	AVL	CEM	Biklist	BizRule	CPN	MPN	MFR	Status	LastOrder	DataSheet	Package	Pins
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	123							
1.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	123	LM124JD	Motorola Semiconductor Pro					
Got 241 Record	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PRN104,C104	LM124JDS	Motorola Semiconductor Pro	DISCONTINUED		D0239419	DIP	14
1.1.1.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	PRN111,123	LM124JD	Motorola Semiconductor Pro	CONTACTMFR		D0239419	DIP	14
1.1.1.2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PRN135	LM324AN	ON Semiconductor	ACTIVE		D8065835	DIP	14
1.1.1.3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		LM324AN	ST Microelectronics	ACTIVE		D8003757	DIP	14
1.1.1.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		LM324N	ST Microelectronics	ACTIVE		D8135043	DIP	14
1.1.1.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		LM224AN	ST Microelectronics	ACTIVE		D8003757	DIP	14
1.1.1.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		LM224N	ST Microelectronics	ACTIVE		D8135043	DIP	14
1.1.1.7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		LM124AN	ST Microelectronics	ACTIVE		D8003757	DIP	14
1.1.1.8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		LM324J	ST Microelectronics	HISTORICAL		D0113591	DIP	14
1.1.1.9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		LM124AJ/883	National Semiconductor Cor	ACTIVE		D3000882	DIP	14
1.1.1.10	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		LM124J/883	National Semiconductor Cor	ACTIVE		D3000882	DIP	14
1.1.1.11	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		LM124J	Texas Instruments Inc	ACTIVE		D8109594	DIP	14

Out of 241 possible alternates which one is suitable?

CAPS Expert View



Home | Research | Find | Buy & Sell | PartMiner Quote

Research

- Circuit Protection Devices
- Clock Generator
- CODEC
- Communication Miscellaneous
- Connector
- Connector Accessory
- Consumer Miscellaneous
- Diode
- Display
- Display Module
- Driver
- Fan/Blower
- Filter
- Frequency Synthesizer
- Logic
- Memory
- Microcontroller
- Microprocessor
- Multiplexer (Analog)
- Optocoupler
- Optoelectronic Misc
- DRAM
- EEPROM
- EPROM
- FIFO
- PROM
- Register

Bom View

	AML1	BizRu	CPN	MPN	Status	LastOrder
1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	PRN100	AD741LN	DISCONTINUED	04/14/2001
1.1	<input type="checkbox"/>	<input type="checkbox"/>	PRN100	AD741LN/+		
1.2	<input type="checkbox"/>	<input type="checkbox"/>	PRN100	AD741LN	DISCONTINUED	04/14/2001
2	<input type="checkbox"/>	<input type="checkbox"/>	PRN101	1MBI400N-120	ACTIVE	
3	<input type="checkbox"/>	<input type="checkbox"/>	PRN102	74HC253N	EOL	06/30/2003
4	<input type="checkbox"/>	<input type="checkbox"/>	PRN103	74LS573DC		
4.1	<input type="checkbox"/>	<input type="checkbox"/>	PRN103	MCC74LS573	DISCONTINUED	
4.2	<input type="checkbox"/>	<input type="checkbox"/>	PRN103	74LS573DCQR	DISCONTINUED	
4.3	<input type="checkbox"/>	<input type="checkbox"/>	PRN103	SN74LS573JD	DISCONTINUED	
4.4	<input type="checkbox"/>	<input type="checkbox"/>	PRN103	SN74LS573JDS	DISCONTINUED	
4.5	<input type="checkbox"/>	<input type="checkbox"/>	PRN103	74LS573DC	DISCONTINUED	
5	<input type="checkbox"/>	<input type="checkbox"/>	PRN104	LM124JD	CONTACTMFR	
5.1	<input type="checkbox"/>	<input type="checkbox"/>	PRN104	LM124JDS	DISCONTINUED	
6	<input type="checkbox"/>	<input type="checkbox"/>	PRN105	A3134LLT	ACTIVE	
7	<input type="checkbox"/>	<input type="checkbox"/>	PRN106	100302W-QMLV	ACTIVE	

PCN/EOL View

	CPN	MPN	Manufacturer	Title	Notice	NoticeDate	LastOrder	LastShip	ReplPart	ReplMfrName
1	LMV921m5	LMV921M5	National Semiconc	EOL						
1.1				... H852WM	E0083102	08/13/2002	06/03/2003	09/03/2003	LMV931	National Sem
1.2				...update to	E0080996	06/10/2002	06/03/2003	09/03/2003	LMV931MF	National Sem
1.3				... 54ACT16	E0083098	05/31/2002	06/03/2003	09/03/2003		
1.4				... 54ACT, C	E0083107	05/21/2002	06/03/2003	09/03/2003		
1.5				... 54ACT, C	E0083103	05/17/2002	06/03/2003	09/03/2003		
2	LMV921m5	LMV921M5	National Semiconc	PCN						
2.1				...20023902	C0081614	06/04/2002				

ePartXplorer View

	AML1	BizRu	CPN	MPN	Manufacturer	Status	LastOrder	DataSheet	Package	Description
1	<input type="checkbox"/>	<input type="checkbox"/>	LMV921m5	LMV921m5						
Got 1 Records	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		LMV921M5	National Semiconduct	DISCONTINUED	06/03/2003	D3000231	TSOP	IC,OP-AMP,
1.2	<input type="checkbox"/>	<input type="checkbox"/>		LMV921M5X	National Semiconduct	DISCONTINUED	06/10/2002	D3000231	TSOP	IC,OP-AMP,
2	<input type="checkbox"/>	<input type="checkbox"/>	PRN100	AD741LN	Analog Devices Inc				DIP	



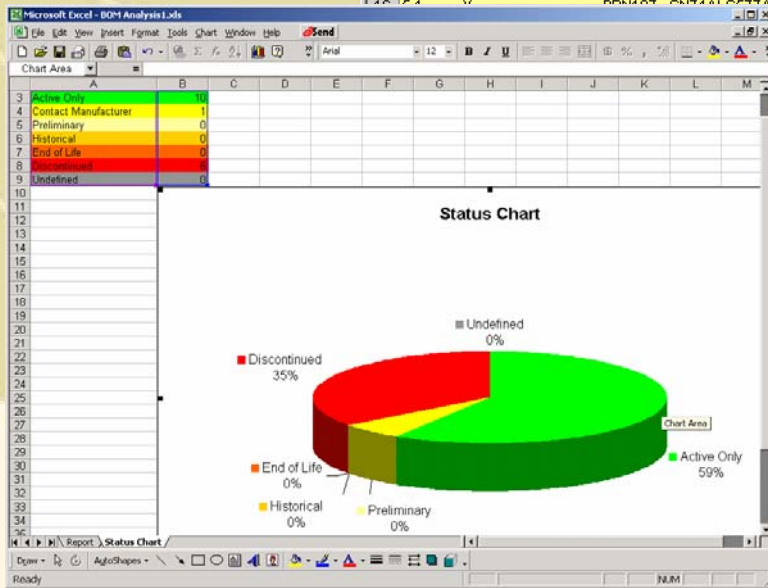
Report Generation

Microsoft Excel - BOM Analysis Report-Sample.xls

Q35 = Q22013

Bill of Material
Created by Precience PartNavigator™ Thursday, October 02, 2003

S.No.	AVL	CEM	BizList	BizRule	CPN	MPN	Qty	MFR	Status	SAP Price	Stage	DataSheet	YEOL	AVG	YEOL Max
1					123										
1.1	X	X			123	LM124JD		Motorola Semiconductor Products Inc	CONTACTMFR	1.46	Decline	D0239419	Q12011		Q12012
2					234										
2.1	X	X			234	XPC860ENZP80D3		Motorola Semiconductor Products Inc	ACTIVE	1.2	Saturation	D8147147	Q22007		Q42013
3					PRN100										
3.1	X	X			PRN100	AD741LN		Analog Devices Inc	DISCONTINUED	6.1	Phase-Out	D8126107	Obsolete		Obsolete
3.2	X				PRN100	LM741H		National Semiconductor Corp	ACTIVE	6.1	Decline	D3000409	Q12006		Q120012
4					PRN105										
4.1	X				PRN105	A3134LLT		Allegro Microsystems Inc	ACTIVE	4	Saturation	D8126199	Q12011		Q22015
5					PRN107										
5.1	X				PRN107	SN74ALOC73A00V		Texas Instruments Inc	ACTIVE	4	Saturation	D8089538	Q12006		Q120012
6															
6.1								Fuji Semiconductors, Inc.	ACTIVE	1.1	Saturation	D8099943	Q12006		Q120012
7															
7.1								Allegro Microsystems Inc	ACTIVE	1.1	Saturation	D8134950	Q12008		Q42010
8															
8.1								National Semiconductor Corp	ACTIVE	7.7	Saturation	D3001735	Q12009		Q120012
8.2								Intersil Corp	DISCONTINUED	2.8	Phase-Out	D0032426	Obsolete		Obsolete
8.3								Fairchild Semiconductor Corp	DISCONTINUED	4.8	Phase-Out	D0021096	Obsolete		Obsolete
8.4								RCA Solid State	DISCONTINUED	4.8	Phase-Out	D0205503	Obsolete		Obsolete
8.5								RCA Solid State	DISCONTINUED	4.9	Phase-Out	D0205503	Obsolete		Obsolete
8.6								RCA Solid State	DISCONTINUED	2.5	Phase-Out	D0205503	Obsolete		Obsolete
9															
9.1								Fairchild Semiconductor Corp	ACTIVE	4	Decline	D1001070	Q12011		Q22015
10															
10.1								Fairchild Semiconductor Corp	EOL	6	Decline	D1001279	Obsolete		Obsolete
11															
11.1								Motorola Semiconductor Products Inc	DISCONTINUED	7.7	Phase-Out	D0067984	Obsolete		Obsolete
11.2								Zarlink Semiconductor	PRELIMINARY	2.8	Decline	D8066201	Q12011		Q22013



Excel, XML and HTML based reports for easy viewing



Benefits of Proactive Lifecycle Management

- μ AVL and BOMs which are complex moving targets can be automatically synchronized with the component data and risk monitoring system on an ongoing basis.
 - ◆ As a result large data sets and changes to them automatically flow to target systems without human intervention required.
- μ Availability of component risk data which may impact customer business is maximized.
 - ◆ As a result the process has no unnecessary delays of precious days, weeks or months.
- μ Access to the maximum amount of component and risk data is made available within the design session.
 - ◆ As a result the entire existing PCN and obsolescence database is available for consultation at all times within the design session



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