



# Symposium 98

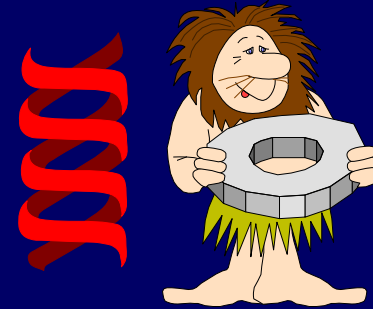
## Product Development

Jim Walter  
Director, Product Development

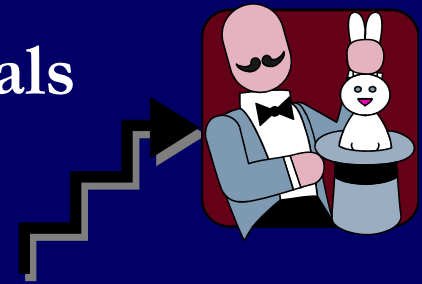
***PRICE***

# Introduction

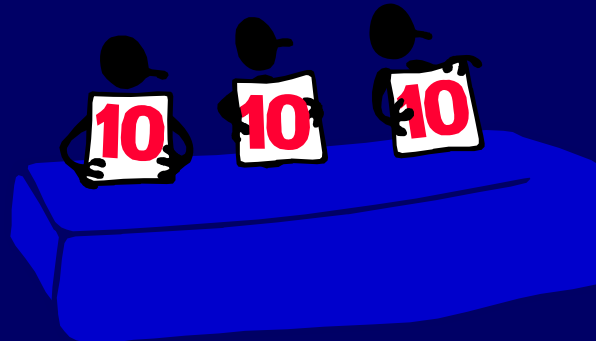
- Evolution & Revolution



- The plan for accomplishing our goals



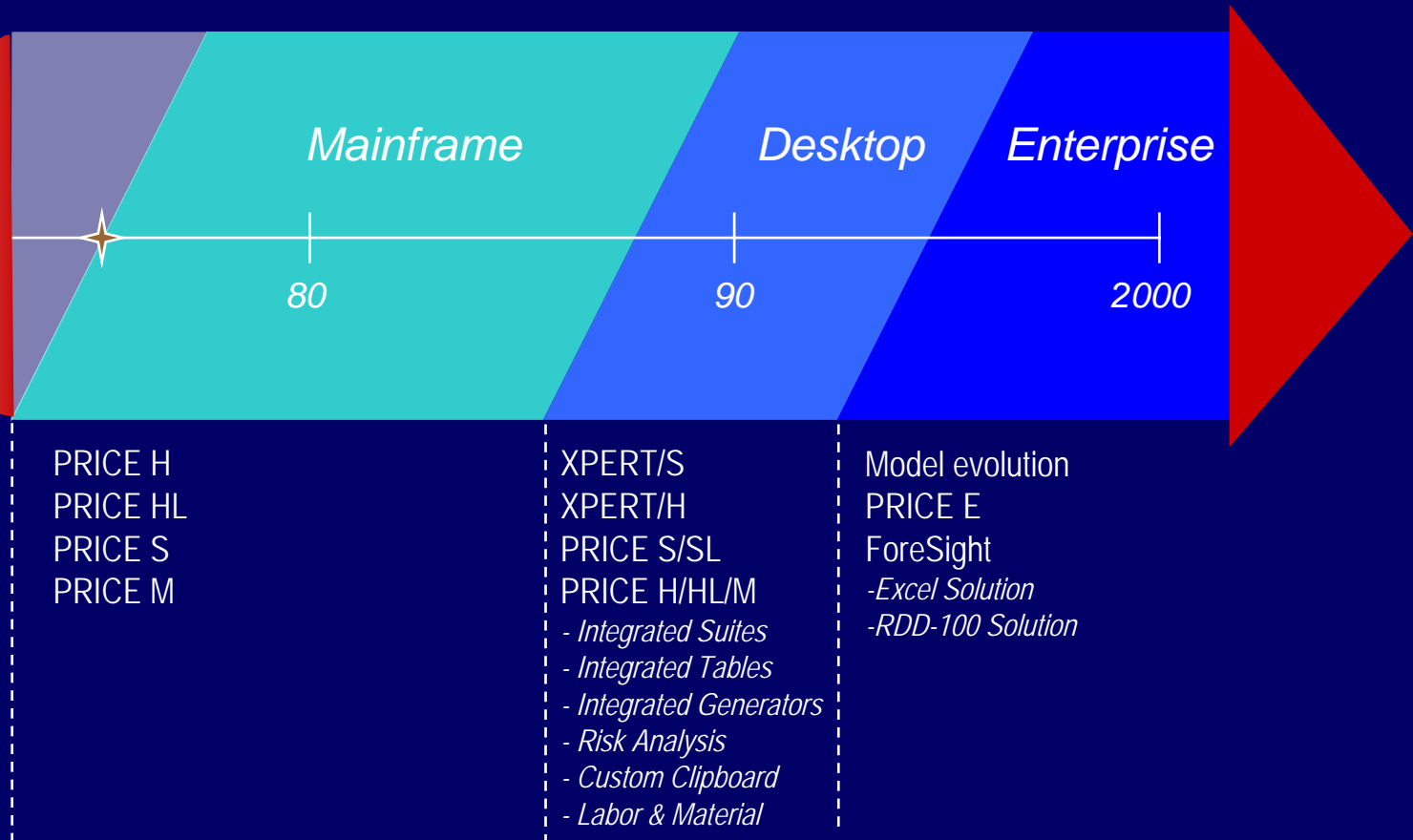
- We want to show you how responsive we can be!



- Historical Perspective
- Current Status
- Next Steps
- Summary

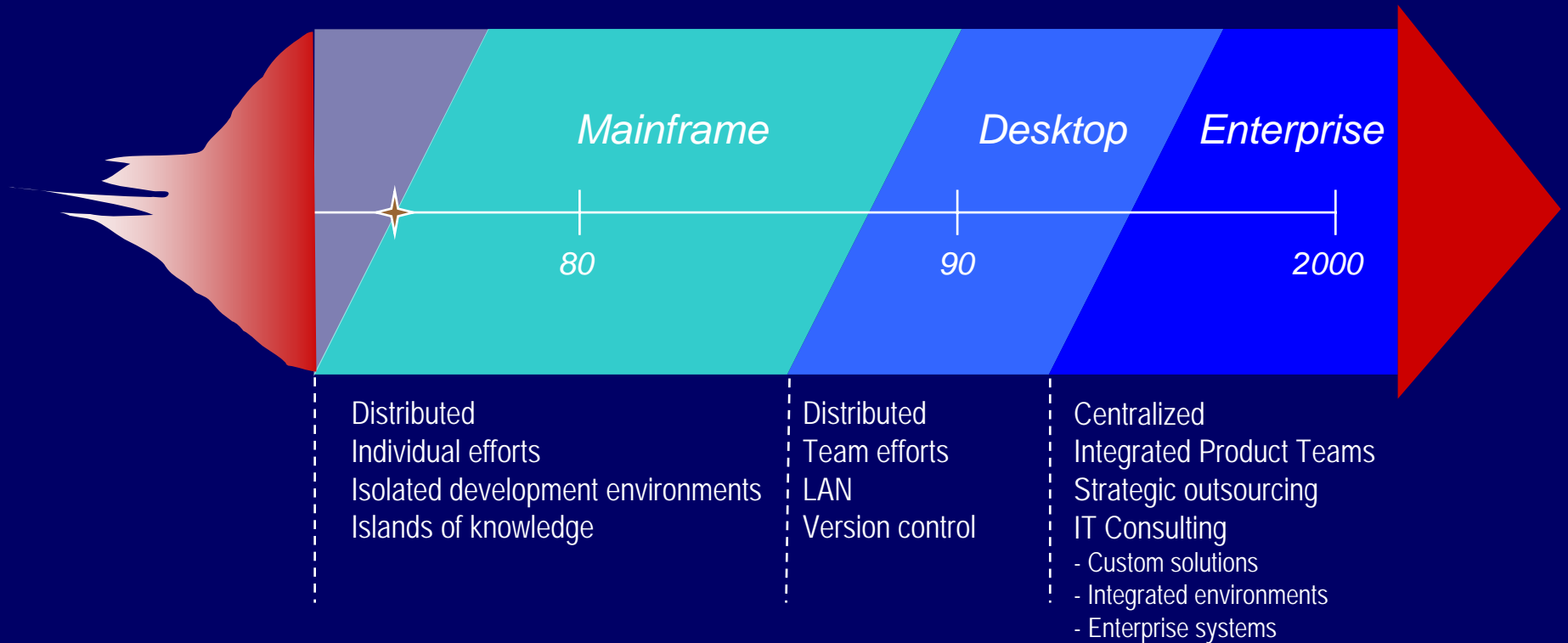
# Product Offerings

## Historical Perspective



# Product Development

## Historical Perspective



- **Mission & Responsibilities**
- **Organization**
- **Services**
  - IT Consulting
  - www product support
  - Papers
- **Recent/Upcoming Releases**

# Mission & Responsibilities



- “To build great products!”
- Evolution of existing products
- Creation of new products
- Quality Assurance
- Documentation, Packaging & Production

# Product Development Organization **PRICE**



## Summary

- 13 Positions (2 revolving co-ops)
- 30% of PRICE workforce
- 7 Bachelors
- 3 Masters
- 100+ years development experience
- 78 years PRICE service
- Outsource peak efforts

Jim Walter  
Director

## Leaders

Todd Geiser  
Software Lead

Arlene Minkiewicz  
Software Lead

Greg Bachrach  
Software Lead

Jane Phillips  
Doc. Lead

Claudette Reeves  
QA Lead

## Individual Contributors

Joe Bauer  
SW Engineer

Mike Weiss  
SW Engineer

Bob Rader  
SW Engineer

Pete Stanley  
SW Engineer

Gurev Gambhir  
SW Co-op

Alex Lawani  
QA Co-op

Vera Zaychik  
SW Engineer

## Outsourcing Vendors

# Recent/Upcoming Releases

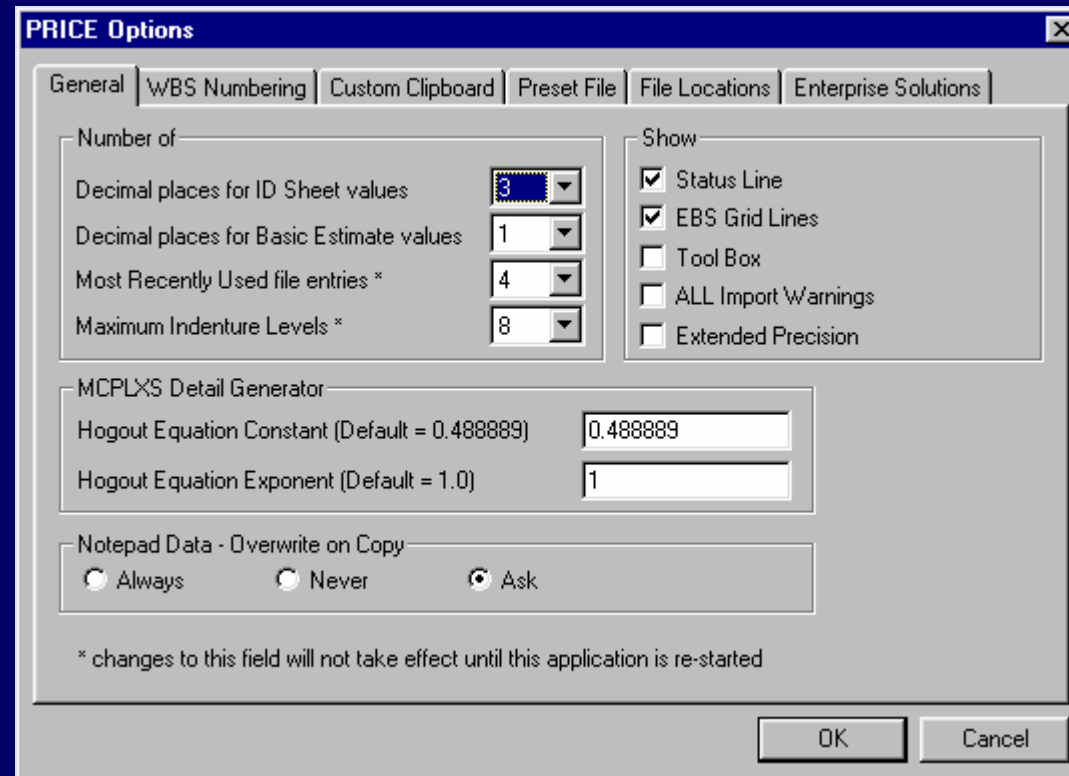


- **7 Key Enhancements**
  - Direct support for 95/98/NT (32-bit)
  - Software security
  - Data protection
  - MCPLXS detail generator
  - User definable tables
  - Cosmetic enhancements
    - ▣ PRICE H Globals, notepad marker...
  - Economic update
- **2 New Products**
  - PRICE Enterprise
  - ForeSight
- **3 Enterprise Solutions**
  - Excel
  - RDD-100
  - MS Project

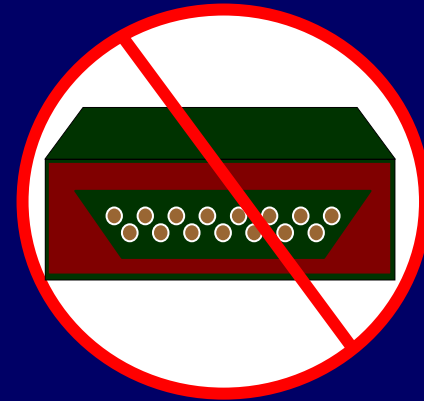
# H/HL/M for 95/98/NT



- 32 bit architecture
  - Long filenames
  - Faster
  - More robust
- Registry replaces “.ini” file
- Options dialog manages registry



- Eliminates need for dongle
- Applies to unlimited and limited sites
- Does not run as a separate process
  - (Doesn't fail due to license manager not running)
- Only an issue at initial installation



- Password protects sensitive financial data
- Data is encrypted in file
- Views limited to prevent reverse engineering

# Data Protection

The screenshot displays the PRICE H/HL/M software interface. The main window has a menu bar with File, Edit, View, Format, Util, Window, Run!, and Help. The Util menu is open, showing options like Create HL data, Validate EBS, Validate Risk, Edit default Glb, Esc, and, Protection (highlighted), and Project Database. Below the menu is a project list with 'Project1' and 'Sys' visible. A second window, '[M-EBS] - Project1', shows 'PRICE M Equipment'. Overlaid on the main window is the 'Protection' dialog box, which asks 'What do you want to protect?' and has three sections: 'Input Protection', 'Output Protection', and 'File I/O Protection'. Each section has checkboxes for 'Financial Factors' and 'Labor & Material'. A 'Lock' sub-dialog box is also open, showing a 'Password:' field and 'OK' and 'Cancel' buttons. The 'Protection' dialog has 'OK', 'Cancel', 'Help', 'Reset', and 'Lock' buttons. At the bottom of the 'Protection' dialog is a checkbox for 'Save Settings As Default'. The main window title bar shows 'PRICE H/HL/M' and the bottom status bar shows 'PRICE H/HL/M' and 'H'.

# Improved MCPLXS Detail Generator

- Spreadsheet view
- Unlimited number of rows
- Move & copy between rows
- Zoom control to adjust display size

# Improved MCPLXS Detail Generator

**MCPLXS Detailed Generator**
✕

Sum Total (%'s): 
Combined MCPLXS:

#	Name	Precision	Maturity	PLTFM	% of Total	Machin	# of Parts	Cal. Factor	Cal. MCPLXS	Composite or Slug Weight	Distance	% Hogout	Surface Finish	% Finished
1		0.000000	0.000000	0.000	0.00	0	0	0.000000	0.000	0.000000	0.000000	0	0.000000	0
2		0.000000	0.000000	0.000	0.00	0	0	0.000000	0.000	0.000000	0.000000	0	0.000000	0
3		0.000000	0.000000	0.000	0.00	0	0	0.000000	0.000	0.000000	0.000000	0	0.000000	0
4		0.000000	0.000000	0.000	0.00	0	0	0.000000	0.000	0.000000	0.000000	0	0.000000	0
5		0.000000	0.000000	0.000	0.00	0	0	0.000000	0.000	0.000000	0.000000	0	0.000000	0
6		0.000000	0.000000	0.000	0.00	0	0	0.000000	0.000	0.000000	0.000000	0	0.000000	0
7		0.000000	0.000000	0.000	0.00	0	0	0.000000	0.000	0.000000	0.000000	0	0.000000	0
8		0.000000	0.000000	0.000	0.00	0	0	0.000000	0.000	0.000000	0.000000	0	0.000000	0
9		0.000000	0.000000	0.000	0.00	0	0	0.000000	0.000	0.000000	0.000000	0	0.000000	0
10		0.000000	0.000000	0.000	0.00	0	0	0.000000	0.000	0.000000	0.000000	0	0.000000	0
11		0.000000	0.000000	0.000	0.00	0	0	0.000000	0.000	0.000000	0.000000	0	0.000000	0
12		0.000000	0.000000	0.000	0.00	0	0	0.000000	0.000	0.000000	0.000000	0	0.000000	0
13		0.000000	0.000000	0.000	0.00	0	0	0.000000	0.000	0.000000	0.000000	0	0.000000	0
14		0.000000	0.000000	0.000	0.00	0	0	0.000000	0.000	0.000000	0.000000	0	0.000000	0
15		0.000000	0.000000	0.000	0.00	0	0	0.000000	0.000	0.000000	0.000000	0	0.000000	0
16		0.000000	0.000000	0.000	0.00	0	0	0.000000	0.000	0.000000	0.000000	0	0.000000	0
17		0.000000	0.000000	0.000	0.00	0	0	0.000000	0.000	0.000000	0.000000	0	0.000000	0
18		0.000000	0.000000	0.000	0.00	0	0	0.000000	0.000	0.000000	0.000000	0	0.000000	0
19		0.000000	0.000000	0.000	0.00	0	0	0.000000	0.000	0.000000	0.000000	0	0.000000	0
20		0.000000	0.000000	0.000	0.00	0	0	0.000000	0.000	0.000000	0.000000	0	0.000000	0

# User Definable Tables



- Microsoft Access database driven
- Centralized administration capability
- Linked to input parameters
- 3 dimensions of control
  - Row
  - Column
  - Page

# User Definable Tables

**Maturity Table** [X]

Value:

OK  
Cancel

	Forgings	Cold Forge	Hot Forge
Description of Item	Aluminum Alloy	5.5	5.3
	Steel Alloy	5.7	5.5
	Titanium	2.8	2.6

Navigation: Sand Castings | **Sand Castings** | User Defined

# Improved Global Input Sheet

**Globals** [X]

Notepad   Reset   Help   Override   SysGlobals

\_\_\_\_\_

	Development	Production	Supplemental	
	DMULT	PMULT	ECNE	<input type="text"/>
	<input type="text"/>	<input type="text"/>	ECNS	<input type="text"/>
Engineering			NSHIFT	<input type="text"/>
Draft	<input type="text"/>	<input type="text"/>	NFACS	<input type="text"/>
Design	<input type="text"/>	<input type="text"/>	ZTECH	<input type="text"/>
System	<input type="text"/>		TECDEL	<input type="text"/>
Proj. Mgmt.	<input type="text"/>	<input type="text"/>	LOTFAC	<input type="text"/>
Data	<input type="text"/>	<input type="text"/>	GAPFAC	<input type="text"/>
Manufacturing			ETLG1:	<input type="text"/>
Prototype / Production	<input type="text"/>	<input type="text"/>	ETLG2:	<input type="text"/>
Tool & Test	M <input type="text"/>	M <input type="text"/>	STLG1:	<input type="text"/>
Schedule	<input type="text"/>	<input type="text"/>	STLG2:	<input type="text"/>
			MSF	<input type="text"/>

OK

Cancel

Lock

Load

SMODS

PSF:

- Inflation rates and conversion factors updated to 1/98
- Turkey added to economic model:
- Euro added to economic model:
  - Allows estimating in your currency and converting to another at output

- Commercial Information Systems Software Cost Model
- Quick Estimate feature
- Integrated Web Wizard
- MS Project Enterprise-style interface

# ForeSight's Quick Estimate Web Wizard

**Web Development**

Client-Side Programs

- Applets
- Scripts
- ActiveX Controls
- HTML

Server-Side Programs

- Client Initiated CGI API
- Server Initiated SSI

Client Computer

Web Server

Are you including the new development of any HTML files in this estimate?

Yes  No

Detailed Estimate

Estimate Now

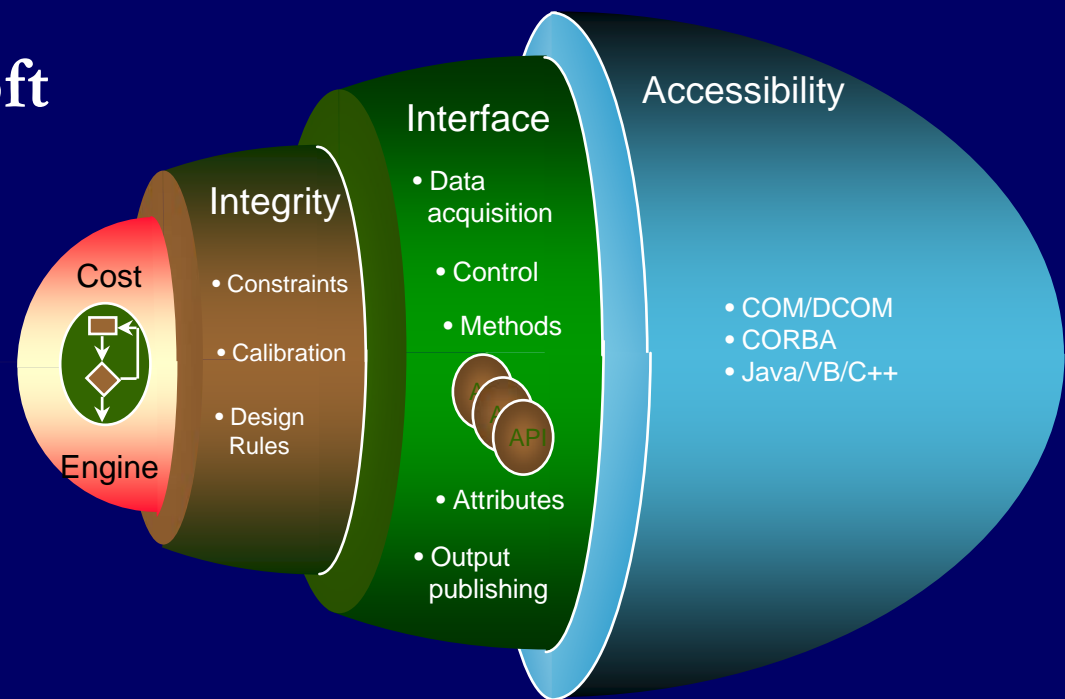
< Back   Next >   Cancel

# ForeSight's Project Interface



No graphic at time of printing

- Interface layer
- Enables smart, intuitive interfaces
- Uses Microsoft COM/OLE



- 2 way, real time interface
- Rows become PRICE elements
- Columns become PRICE parameters
- Column headers drop down parameter list
- Able to open and save HPR files from Excel
- PRICE can be visible or background
- Parameter validation
- Set only feature allows dependencies to calculate parameter values

# Excel Solution

Microsoft Excel - PRICE Excel Interface.xls [Read-Only]

File Edit View Insert Format Tools Data Window Help

File menu options: New, Open, Close, Save, Save As, Update (Alt+F9), Get Data (Alt+F10), PRICE H visible (checked), Ignore Validation Errors, Help

Elements Title	H Inputs QTY	H Outputs AMORTIZED_UNIT_COST	H Outputs PRODUCTION_PROD Labor Hours
1 PRICE E File: C:\PRICE99\Samph.hpr			
2			
3 Sample PRICE H ONLY EBS	100	\$ 211.19	103,469
4 Sample PRICE H EBS	100	\$ 211.19	103,469
5 Sample Electro-mechanical Element	100	\$ 69.16	63,770
6 Sample Mechanical Element	100	\$ 29.56	29,056
7 Sample Purchased Element (all Structure	100	\$ 104.96	-
8 Sample Integration and Test Element	100	\$ 7.52	10,644
9			

Ready NUM

PRICE Estimating Suite 99 (SP1) - [C:\PRICE99\Samph.hpr]

File Edit View Format Util Window Run! Help

0	Sys	Sample PRICE H ONLY EBS	H/L	Gib	Esc	Fin	Dep
1		Sample PRICE H EBS	H/L				
2		Sample Electro-mechanical Element	H/L				
3		Sample Mechanical Element	H/L				
4		Sample Purchased Element (all S	H/L				
5		Sample Integration and Test Elem	H/L				

PRICE Estimating Suite 99 (SP1) H

- Imports a design from systems engineering tool
- Creates a populated EBS in PRICE H & S
- Hardware, Software, Development, Production, O&S
- Incorporates design source
  - Design integration of COTS/GFE
  - Modification of COTS/GFE/inherited designs
  - Integration & test of assemblies
  - Hardware/software integration & test
    - ▣ Multiple hardware and software targets
- Exports results to systems engineering tool
- “Preset” & “Override” files for estimator control

# RDD-100 Solution



PRICE Estimating Suite 99 (SP1) - [Project2]

File Edit View Format Util Window Run! Help

- 0 New...
- 1 Open... CTRL+F12
- 2 Close
- 3 Save SHIFT+F12
- 4 Save As... F12
- 5 Save Report
- 6 Print Report
- 7 Enterprise Solution
  - Excel
  - RDD
    - Import
    - Import t
- 8 Exit ALT+F4
- 9 1 c:\program files\calibrationrepository\diffuser 1.hpr
- 10 2 c:\price99\samph.hpr
- 11 3 c:\override.hpr
- 12 4 c:\windows\desktop\override.hpr

12 Video Driver HL

13 Mother BD assy (I&T) HL

14 Pwr supply HL

15 Pwr supply (Mod) HL

16 System2 (I&T) HL

17 Software System I&T HL

PRICE Estimating Suite 99 (SP1)

PRICE Enterprise Solution for RDD-100

File Edit Options Run! Help

RDD Import File: C:\WINDOWS\DESKTOP\RddJim\smal.txt

PRICE Preset File: C:\WINDOWS\DESKTOP\RddJim\PRESET.hpr

PRICE Override File:

Lock:

RDD Export File:

Component Name	Component Type	Component Sub Type	Design Sc
System2	System		
chassis	HW Element	Enclosure	Modified C
Mother BD assy	HW Element		
board1	HW Element	Board	New
daughter1	HW Element	Board	Modified F
ROM BIOS	FWCI		New
Video Driver	FWCI		COTS
Pwr supply	HWCI	Power Supply	Modified F

# RDD-100 Solution



PRICE Estimating Suite 99 (SP1) - [Project2]

File Edit View Format Util Window Run! Help

- 0 Sys System2
- 1 chassis
- 2 chassis (DI)
- 3 chassis (Mod)
- 4 Mother BD assy
- 5 board1
- 6 board1 (HSI)
- 7 daughter1
- 8 daughter1 (m)
- 9 daughter1 (m)
- 10 daughter1 (m)
- 11 ROM BIOS
- 12 Video Dr
- 13 Mother B
- 14 Pwr supply
- 15 Pwr supply
- 16 System2 (l
- 17 Software S

PRICE S - [Project3]

File Edit View Format Options Util Window Run! Help

- 0 Sys System2
- 1 ROM BIOS
- 2 C++
- 3 Video Driver

PRICE Enterprise Solution for RDD-100

File Edit Options Run! Help

RDD Import File: C:\WINDOWS\DESKTOP\RddJim\smal.txt

PRICE Preset File: C:\WINDOWS\DESKTOP\RddJim\PRESET.hpr

PRICE Override File:

Lock:

RDD Export File:

Component Name	HDevHW	HDevHSI	HDevDI	HDevIT	HDevSW	HDevSI	HProdTot	HProdHW	HProdIT	HProdUPC	HProdSW	HLPr
System2	\$727,474	\$47,570	\$69,946	\$98,696	\$606,412	\$3,042,483	\$193,343	\$180,982	\$12,360	\$13,810	\$	\$58:
chassis	\$5,229	\$	\$50,720	\$	\$	\$	\$27,293	\$27,293	\$	\$1,839	\$	\$8:
Mother BD assy	\$718,081	\$47,570	\$19,226	\$48,543	\$606,412	\$105,491	\$149,046	\$141,915	\$7,131	\$5,323	\$	\$46:
board1	\$714,649	\$7,723	\$	\$	\$	\$	\$139,876	\$139,876	\$	\$3,850	\$	\$46:
daughter1	\$3,432	\$5,409	\$19,226	\$	\$	\$	\$2,039	\$2,039	\$	\$17	\$	\$:
ROM BIOS	\$	\$34,438	\$	\$	\$605,912	\$105,491	\$	\$	\$	\$	\$	\$:
Video Driver	\$	\$	\$	\$	\$500	\$	\$	\$	\$	\$	\$	\$:
Pwr supply	\$4,164	\$	\$	\$	\$	\$	\$11,774	\$11,774	\$	\$614	\$	\$3:

- Better understanding of customer needs
- Better communication:
  - Product capabilities
  - Product limitations
  - Product availability
- Increase
  - Customer focus
  - Throughput
  - Quality

# You Can Expect



- Major enhancements on annual basis
- Minor revisions on continuing basis
- Establishment of formal customer feedback mechanism
- Increased use of WWW client only site
  - Software availability (revision, beta & gold)
  - Bug lists
  - Service Releases
- Timely communication of upcoming release goals

# Next Steps

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- Q4 1998 actions
  - Customer survey
  - Formation of forum
  - Invigorated web page
- Quarterly Newsletter Column
- Ongoing contact point email address:
  - [productdevelopment@pricesystems.com](mailto:productdevelopment@pricesystems.com)

- **Significant annual investment in Product Development**
  - ~30% of personnel
  - ~\$25,000 in capital
  - ~\$40,000 in software tools and training
- **Significant Achievements (last twelve months alone)**
  - 2 new products (PRICE E & ForeSight)
  - 3 enterprise solutions (Excel, RDD & Project)
  - 6 major enhancements
- **Ambitious Plans**
  - Continued increase in throughput
  - Increased customer focus
  - Increased custom development
- **We are dedicated to your success!**