Université du Québec à Montréal

Software Engineering Management Laboratory

Function Point Tool Market Survey
1996

Research report prepared by
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FP Tool Market Survey

Overview of Survey Results

FP Tool Vendors

Vendor
AGS Management Systems
Angel Group
ABT Corporation
Cayenne / Backman Information Systems Inc.
CAP Gemini / CAP Volmac
Charismatek Software Metrics
CMD - CASE Methods Development Corporation
Computer Associates International Inc.
CIM
Data Processing Organization
DDB Software Inc.
Development Support Center Inc.
Durr Comsoft
G A SEER Technologies
GEC - Marconi Systems Technologies
Information Technology Development Center (TIEKE)
Integrated Software Specialists Inc.
Interfase S.A.
Koch Productivity Consulting
Lockheed Martin Price Systems
Micro Focus, Ltd.
Olivetti Group - SIP
Productivity Management Group Inc.
Protellices Software Inc.
QP Management Group Inc.
Quality Xperience Solutions
Quantitative Software Management Inc.
Resource Calculations Inc.
SofStar Systems
Software Productivity Research
Strategic Systems Technology
Hydro Québec - Systemhouse
Texas Instruments Inc.
Unisys
VIASOFT Inc.

FP Tools Surveyed

Product	Version
AEM - Adaptive Estimating Model	
Asset - R	
AutoPoint	1.0
Cayenne / Bachman FP Analyst	
Before You Leap	1.52
CA - Estimacs	7.1
CA - FPXpert	3.1
CA - Metrics	3.0
CheckPoint	2.3
CIM Aid	2.0
Composer: FP Calculation Report	3.0
Costar	
Enterprise Software Planner	
ESTEEM	1.1
firstCASE	3.5
ForeSight	ß test
FP Estimator	1.0
FP Fast	3.1
FP Manager	1.03
FP Mentor	1.5
FPSII - FP System II	**2.11**
FP Tool	
Function Point Workbench	2.02F
GPM	1.4
LATURI	2.0
LDA - LINC Development Assistant	
MARS	
Metrics Manager	1.0
Micro Focus Revolve	3.1
Micro Man Esti Mate	
Micro Man II	
PADS	
PCA Calc	1.0
PRICE S	**2.11**
Productivity Manager	3.5
Project Workbench	3.0
Project Bridge Modeler	3.0
PQM *Plus*	2.0
Quality Xpert	
SEER - Software Sizing Model	1.18
SEER - Software Evaluation Model	4.5
SFERA	2.0
Size Planner	
Size Plus	**1.2**
SLIM	4.0
SLIM Control	2.0
SLIM Metrics	2.0
SMART Counter	2.0A
SMART Data	1.0
SMART Risk	**1.0**
Synergy	
VIA / RECAP - ESW Portfolio Analysis	2.1

Detailed Classification Grid

Activities	#	Main Category	Features	FP Tool *available*
Project Planning & Sizing				Yes
Planning*	**0**	**[PLAN]**	[PLA]	
Sizing (Size Estimation)*:				Yes
Detailed FPA :		**[SIZ]**		
FP Data Collection and Calculation	**1**		[DCC]	Yes
Expert System that Assist with FP Counting	**2**		[EXP]	Yes
Automatic FP Counting	**3**		[AUT]	Yes
High Level	**4**		[SIZE]	Yes
Estimating - Predicting*:	**5**	**[EST]**	[EST]	Yes
Effort - Schedule/Duration - Staff /Team Size - Cost ...				
Analysis: Risk (5A), Productivity (5B), Quality (5C), Value (5D), Financial, Tradeoff, What-if ...	5A 5B …		[RISK] [PROD] [QUA] [VAL] [.........]	
Management (Scheduling, Tracking & Control) *:	**6**			
Scheduling: Activities - Staff - Costs ...		**[MGM]**	[SCHED]	Yes
Tracking: ,,			[TRACK]	
Trending: ,,			[TREND]	
Controlling (Re-planning: Tradeoff Analysis)**: ,,**			[CTRL]	
Software Measures Repository *:	**7**			
FP Counts Repository (already computed in types tool 1 to 6)	**-**	**[SWM]**		
Project's Measures & Metrics Repository (including FP Counts)				
SW Metrics Tracking *(post facto)*			[MTRACK]	Yes
SW Metrics Trending *(post facto)*			[MTREND]	
SW Metrics Analysis *(post facto)*			[MANA]	
Evaluation (Assessment & Comparisons) *:	**8**			
Process Assessment		**[EVAL]**	[ASSESS]	Yes
Baselining			[BASE]	
Benchmarking			[BENCH]	
Training:	**9**			Yes
FPA Tutorial		**[TRAIN]**	[TRAIN]	
FPA Guidance			[GUIDE]	
Documentation *:	**10**	**[DOC]**		Yes
Computer Based FP Documentation : Rules - Case Studies ...			[DOC]	

*: For all FP tools the following facilities are included : Data storage - Printing - Reporting

Abbreviations

Main Categories

[DOC]   **Documentation of IFPUF - CPM counting rules (hypertext and other computer based supports)**
[EVAL]   **Internal & External Evaluation :   Process Assessment - Project Baselining - Benchmarking**
[EST]   **Project Estimation Based on FP Counts**
[MGM]   **Project Management: Scheduling - Tracking - Trending - Controlling - Reporting**
[SIZ]   **Project Sizing**
[SWM]   **Software Measures & Metrics Repository, Analysis & Reporting**
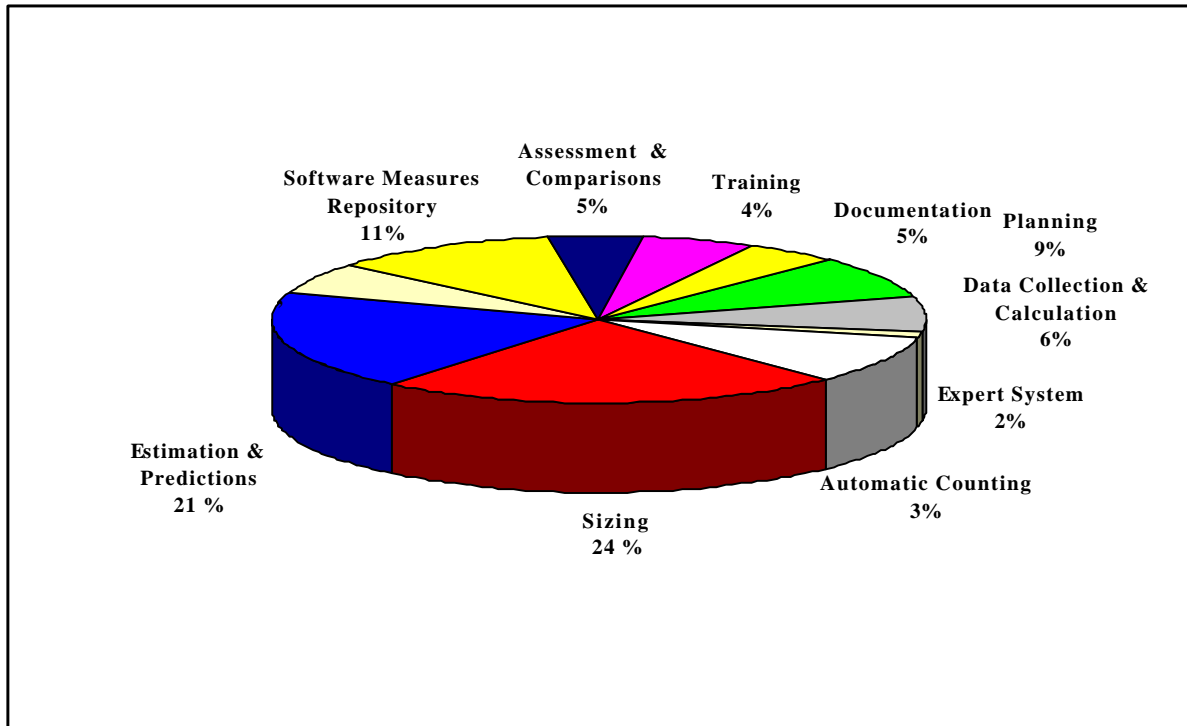[TRAIN]   **FP Individual Training: FPA concepts tutorial**

Tool Functionalities

[ANA]   **Analysis: Risk - Value - Quality - Defect - Reliability - Financial ...**
[AUT]   **Automatic FP Calculation (Type 3 Tool - IFPUG)**
[BASE]   **Project Baselining**
[BENCH]   **Benchmarking**
[CRTL]   **Project Controlling**
[DCC]   **FP Data Collection And Calculation (Type 1 Tool - IFPUG)**
[DEF]   **Defects Analysis**
[DOC]   **Documentation of IFPUF - CPM counting rules (hypertext and other computer based supports)**
[EST]   **Project Estimation Based on FP Counts**
[EXP]   **Expert System that Assist with FP Counting (Type 2 Tool - IFPUG)**
[GUIDE]   **FP Counting Guidance**
[MANA]   **Measures / Metrics Analysis: Risk - Value - Quality - Defe ct - Reliability - Financial ...**
[MTRACK]   **Measures / Metrics Tracking**
[PROD]   **Productivity Analysis**
[RELI]   **Reliability Analysis**
[RISK]   **Risk Analysis**
[SCHED]   **Project Scheduling: Activities, Staff, Resources ...**
[SIZE]   **Software Sizing**
[TRACK]   **Tracking**
[TRADE]   **Re-Planning: Tradeoff Analysis**
[TRAIN]   **FP Individual Training: FP concepts tutorial**
[TREND]   **Trending**
[VALUE]   **Value Analysis**
[WHAT]   **What-If Analysis**

FP Tool: Classification Grid (Taxonomy)

FP Tool	Tool Category
Project Planning	**[0]**
FP Data Collection and Calculation IFPUG Type ①	**[1]**
Expert System that Assist with FP Counting IFPUG Type ②	**[2]**
Automatic FP Counting IFPUG Type ③	**[3]**
Sizing (high level)	**[4]**
Estimation / Prediction (based on FP counts)	**[5]**
Risk: [5-A] Productivity: [5-B] Quality: [5-C] Value: [5-D] ...	
Project Management (scheduling, tracking, control)	**[6]**
Software Measures Repository	**[7]**
Evaluation (assessment & comparisons)	**[8]**
Training (FP concepts tutorial)	**[9]**
FP Documentation (computer based supports)	**[10]**

Distribution by Type

Assessment & Comparisons 5%

Software Measures Repository 11%

Training 4%

Documentation 5%

Planning 9%

Data Collection & Calculation 6%

Expert System 2%

Automatic Counting 3%

Sizing 24 %

Estimation & Predictions 21 %

FP Tool Classification	Total
[0] Project Planning	9*
[1] FP Data Collection and Calculation	6
[2] Expert System that Assist with FP Counting	2
[3] Automatic FP Counting	8
[4] Sizing (High Level)	22
[5] Project Estimating (Estimation & Predictions)	19
[5-A] Risk	13†
[5-B] Productivity	11†
[5-C] Quality	9†
[5-D] Value	6†
[6] Project Management (Scheduling & Control)	6
[7] Software Measures Repository	11
[8] Evaluation (Assessment & Comparisons)	4
[9] Training	5
[10] Documentation	4

*: Included in sizing and estimation tools
†: Included in estimation tools

Distribution by Country
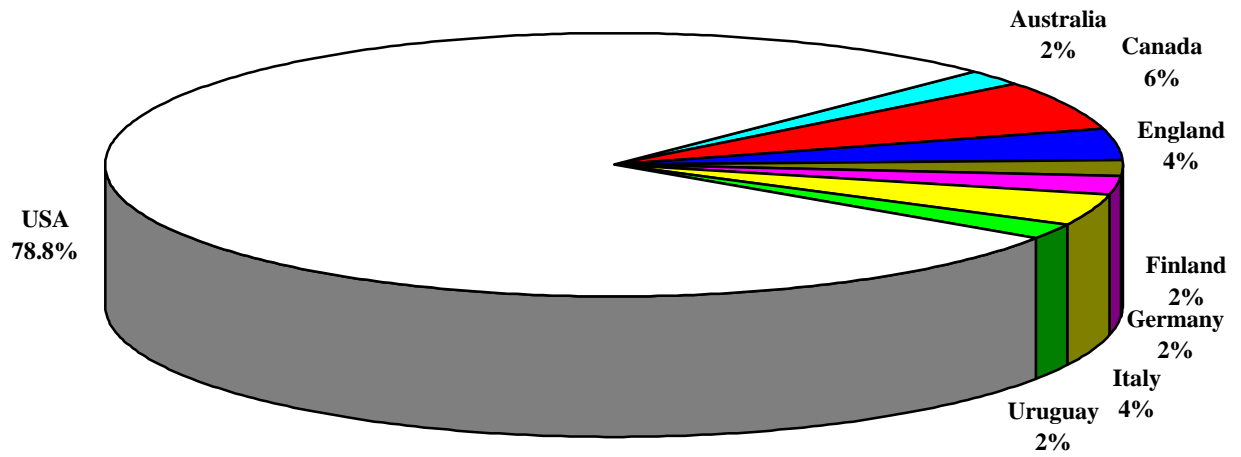
Country	FP Tools
Australia	1
Canada	3
England	2
Finland	1
Germany	1
Italy	2
Uruguay	1
USA	41
Total	**52**

Distribution by Platform

Work Station
9.5 %

Mini
4.8 %

Mainframe
9.5 %
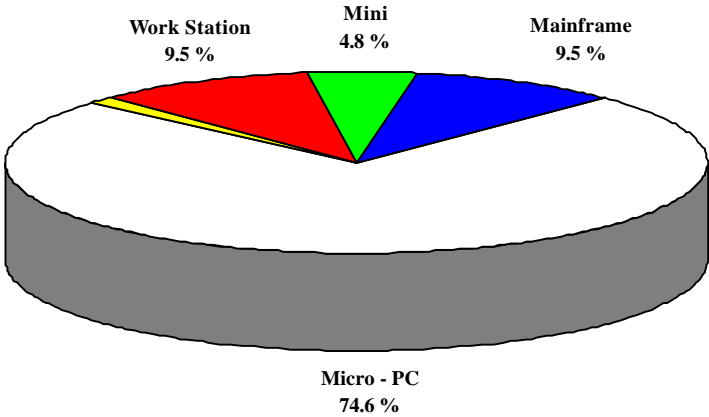
Micro - PC
74.6 %

Platform	FP Tools
Micro - PC	47
Micro - Macintosh	1
Work Station	6
Mini	3
Mainframe	6

Distribution by Operating System - Interface
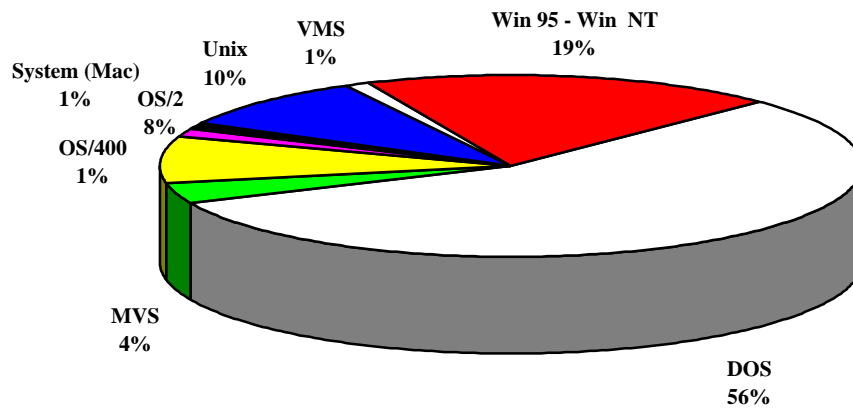
Operating System	FP Tools
DOS	49
MVS	3
OS/2	8
OS/400	1
System (Mac)	1
Unix	8
VMS	1
Win 95 - Win NT	16

Detailed Results

Product Index

Product	Vendor	Location	Phone
AEM - Adaptive Estimating Mode	Koch Productivity Consulting	Bel Air, MD	(410) 838-8721
Asset - R	Resource Calculations Inc.		
AutoPoint	Integrated Software Specialists Inc.	Schaumburg, IL	(708) 240-5070
Bachman FP Analyst	Cayenne Software Inc.	Burlington, MA	(617) 273-9003 Ext. 490
Before You Leap	Strategic Systems Technology	London, GB	(44) (171) 538-8228
CA - Estimacs	Computer Associates International Inc.	Fort Lee, NJ	(201) 585-6734
CA - FPXpert	Computer Associates International Inc	Fort Lee, NJ	(201) 585-6734
CA - Metrics	Computer Associates International Inc.	Fort Lee, NJ	(201) 585-6734
CheckPoint	Software Productivity Research	Burlington, MA	(617) 273-0140 Ext. 110
CIM Aid	CIM - CRIM	Montréal, PQ	(514) 398-1234
Composer: FP Calculation Report	Texas Instruments Inc.	Plano, TX	(214) 575-3689
Costar	SofStar Systems	Amherst, NH	(603) 672-0987
Enterprise Software Planner	Software Productivity Research.	Burlington, MA	(617) 273-0140 Ext. 110
ESTEEM	CAP Gemini America	New York, NY	(212) 944-6464
Fristcase	AGS Management Systems	King of Prussia,PA	1 800 220-2471
ForeSight	Lockheed Martin Price Systems	Mt. Laurel, NJ	(609) 866-6790
FP Estimator	CIM - SELAM	Montréal, PQ	(514) 355-2872
FP Fast	Olivetti Group - SIP	Milan, Italy	(39) (2) 66 20 30 02
FP Manager	ABT Corporation.	New York, NY	(212) 219-8945
FP Mentor	Angel Group	Las Colinas, TX	(214) 491-2686
FP System II - FPSII	MSB2	Mequon, WI	(414) 243-9130
FP Tool	Durr Comsoft	Munich,Germany	(49) 89- 22 85 406
Function Point Workbench	Charismatek Software Metrics	Charismatek, Austr	(61)(0) 3 9696 1255
GPM	Interfase S.A.	Montevideo, UY	(5982) 49 46 00
LATURI	Information Technology Development	Helsinki, Finland	(358) (0) 685-1200
LDA - LINC Development Assista	Unisys	New York, NY	(212) 504-9600
MARS	Applied Information Development		
Metrics Manager	ABT Corporation.Corporation	New York, NY	(212) 219-8945
Micro Focus Revolve	Micro Focus, Ltd.	Newbury Berkshire	+(1635) 32646
Micro Man Esti Mate	Protellices Software Inc.	Santa Monica, CA	(310) 393-4552
Micro Man II	Protellices Software Inc.	Santa Monica, CA	(310) 393-4552
PADS	Quantitative Software ManagementInc	McLean, VA	(703) 790-0055
PCA Calc (with add-on)	Hydro Québec - Systemhouse - Hyd	Montréal, Québec	(514) 866-2891
PQM Plus	QP Management Group Inc.	Stoneham, MA	(617) 438-2692
PRICE S	Lockheed Martin Price Systems	Mt. Laurel, NJ	(609) 866-6790
Productivity Manager	Productivity Management Group Inc.	Williamsville,NY	(716) 633-0621
Project Bridge Modeler	ABT Corporation.	New York, NY	(212) 219-8945
Project Workbench	ABT Corporation.	New York, NY	(212) 219-8945
Quality Xpert	Quality Xperience Solutions	Chicago, IL	(312) 667-9890
SEER - Software Sizing Model	G A SEER Technologies	Los Angeles, CA	(310) 670-3404
SEER - Software Evaluation Mod	G A SEER Technologies	Los Angeles, CA	(310) 670-3404
SFERA	Data Processing Organization	Rome, Italy	(39) (6) 322.68.87
Size Planner	Quantitative Software Management Inc	McLean, VA	(703) 790-0055
Size Plus	GEC - Marconi Systems Technologies	Chantilly, VA	(703) 263-1260
SLIM	Quantitative Software Management Inc	McLean, VA	(703) 790-0055
SLIM Control	Quantitative Software Management Inc	McLean, VA	(703) 790-0055
SLIM Metrics	Quantitative Software Management Inc	McLean, VA	(703) 790-0055
SMART Counter	DDB Software Inc.	Orange Park, FL	(904) 213-9836
SMART Data	DDB Software Inc.	Orange Park, FL	(904) 213-9836
SMART Risk	DDB Software Inc.	Orange Park, FL	(904) 213-9836
Synergy	CMD Corporation	Richardson, TX	(800) 644-8173
VIA / RECAP Portfolio Analysis	VIASOFT Inc.	Schaumburg, IL	(602) 952-0060

Vendor Index

Vendor	Product	Location	Phone
AGS Management Systems	Firstcase	King of Prussia, PA	1 800 220-2471
Angel Group	FP Mentor	Las Colinas, TX	(214) 491-2686
ABT Corporation	FP Manager	New York, NY	(212) 219-8945
ABT Corporation	Metrics Manager	New York, NY	(212) 219-8945
ABT Corporation	Project Bridge Modeler	New York, NY	(212) 219-8945
ABT Corporation	Project Workbench	New York, NY	(212) 219-8945
ABT Corporation	MARS		
Cayenne Software Inc.	Bachman FP Analyst	Burlington, MA	(617) 273-9003 Ext. 490
CAP Gemini America	ESTEEM	New York, NY	(212) 944-6464
Charismatek Software Metrics	Function Point Workbench	Charismatek, Austr	(61)(0) 3 9696 1255
CIM - SELAM	FP Estimator	Montréal, PQ	(514) 355-2872
CIM - CRIM	CIM Aid	Montréal, PQ	(514) 398-1234
CMD Corporation	Synergy	Richardson, TX	(800) 644-8173
Computer Associates International Inc	CA - FPXpert	Fort Lee, NJ	(201) 585-6734
Computer Associates International Inc.	CA - Estimacs	Fort Lee, NJ	(201) 585-6734
Computer Associates International Inc.	CA - Metrics	Fort Lee, NJ	(201) 585-6734
Data Processing Organization	SFERA	Rome, Italy	(39) (6) 322.68.87
DDB Software Inc.	SMART Counter	Orange Park, FL	(904) 213-9836
DDB Software Inc.	SMART Data	Orange Park, FL	(904) 213-9836
DDB Software Inc.	SMART Risk	Orange Park, FL	(904) 213-9836
Durr Comsoft	FP Tool	Munich,Germany	(49) 89 22 85 406
G A SEER Technologies	SEER - Software Sizing Model	Los Angeles, CA	(310) 670-3404
G A SEER Technologies	SEER - Software Evaluation Mod	Los Angeles, CA	(310) 670-3404
GEC - Marconi Systems Technologies	Size Plus	Chantilly, VA	(703) 263-1260
Information Technology Development	LATURI	Helsinki, Finland	(358) (0) 685-1200
Integrated Software Specialists Inc.	AutoPoint	Schaumburg, IL	(708) 240-5070
Interfase S.A.	GPM	Montevideo, UY	(5982) 49 46 00
Koch Productivity Consulting	AEM - Adaptive Estimating Mode	Bel Air, MD	(410) 838-8721
Lockheed Martin Price Systems	ForeSight	Mt. Laurel, NJ	(609) 866-6790
Lockheed Martin Price Systems	PRICE S	Mt. Laurel, NJ	(609) 866-6790
Micro Focus Ltd.	Micro Focus Revolve	Newbury Berkshire	+(1635) 32646
MSB2	FP System II - FPSII	Mequon, WI	(414) 243-9130
Olivetti Group - SIP	FP Fast	Milan, Italy	(39) (2) 66 20 30 02
Productivity Management Group Inc.	Productivity Manager	Williamsville,NY	(716) 633-0621
Protellices Software Inc.	Micro Man Esti Mate	Santa Monica, CA	(310) 393-4552
Protellices Software Inc.	Micro Man II	Santa Monica, CA	(310) 393-4552
QP Management Group Inc.	PQM *Plus*	Stoneham, MA	(617) 438-2692
Quality Xperience Solutions	Quality Xpert	Chicago, IL	(312) 667-9890
Quantitative Software Management Inc	SLIM	McLean, VA	(703) 790-0055
Quantitative Software Management Inc	SLIM Control	McLean, VA	(703) 790-0055
Quantitative Software Management Inc	SLIM Metrics	McLean, VA	(703) 790-0055
Quantitative Software Management Inc	PADS	McLean, VA	(703) 790-0055
Quantitative Software Management Inc	Size Planner	McLean, VA	(703) 790-0055
Resource Calculations Inc.	Asset - R		
SofStar Systems	Costar	Amherst, NH	(603) 672-0987
Software Productivity Research	CheckPoint	Burlington, MA	(617) 273-0140 Ext. 110
Software Productivity Research.	Enterprise Software Planner	Burlington, MA	(617) 273-0140 Ext. 110
Strategic Systems Technology	Before You Leap	London, GB	(44) (171) 538-8228
Hydro Québec - Systemhouse - Hyd	PCA Calc (with add-on)	Montréal, Québec	(514) 866-2891
Texas Instruments Inc.	Composer: FP Calculation Report	Plano, TX	(214) 575-3689
Unisys	LDA - LINC Development Assista	New York, NY	(212) 504-9600
VIASOFT Inc.	VIA / RECAP Portfolio Analysis	Schaumburg, IL	(602) 952-0060

Product	FP tool classification using the proposed taxonomy
AEM - Adaptive Estimating Model	[EST] [EVAL]: [EST] [PROD] [QUA] [SATIS] [RISK] // [BENCH]
Asset - R	[SIZ]: [SIZE]
AutoPoint	[SIZ]: [AUT]
Bachman FP Analyst	[SIZ]: [AUT]
Before You Leap (with add-on)	[SIZ] [EST] : [SIZE] [AUT] [EST] // [RISK] [PROD]
CA - Estimacs	[EST] : [EST] [WHAT] [RISK] [FIN] [VAL] // [BASE]
CA - FPXpert	[SIZ]: [EXP] // [GUIDE]
CA - Metrics	[SWM] [EVAL] : [SWM] [MTRACK] [MTREND] [BASE] [BENCH]
	[MANA] : [VAL] [PROD] [QUA]
CheckPoint (Checkmark)	[PLAN] [EST] [EVAL] [SWM]: [EST] [ANA] [TRACK] [TREND] [PROD] [VAL]
	[RISK] [QUA] [DEF] [ASSESS] [BASE] [BENCH] // [SWM]
CIM Aid	[DOC] : [DOC]
Composer: FP Calculation Report	[SIZ]: [AUT]
Costar	[SIZ] [EST]: [SIZE] [EST] [ANA]
Enterprise Software Planner	[SIZ] [EST]: [SIZE] [EST]
ESTEEM	[SIZ] [EST]: [SIZE] [EST] [QUA]
firstCASE	[PLAN] [SIZ] [EST] [MGM]: [PLAN] [SIZE] [EST] [ANA] [SCHED] [CTRL]
ForeSight	[PLAN] [SIZ] [EST]: [PLAN] [SIZE] [EST] [TRADE] [WHAT]
FP Estimator	[SIZ]: [DCC]
FP Fast	[PLAN] [SIZ] [EST] [MGM] : [PLAN] [SIZE] [EST] [RISK] // [SCHED]
FP Manager	[SIZ] : [DCC]
FP Mentor	[TRAIN]: [TRAIN] [DOC]
FP System II FPSII	[SWM] [SIZ]: [SWM] // [SIZE]
FP Tool	[SIZ]: [SIZE]
Function Point Workbench	[SIZ] [PLAN] : [DCC] // [PLAN] [DOC] [GUIDE]
GPM	[SIZ] [EST]: [SIZE] [EST] // [PLAN] [TRACK]
LATURI	[SIZ] [EST]: [SIZE] [EST] [QUA] [PROD] [RISK]
LDA - LINC Development Assistant	[SIZ] : [AUT]
MARS	[SWM]: [SWM] // [MTREND] [VAL] [PROD]
Metrics Manager	[SWM]: [SWM] // [MANA] [PROD] [MTRACK]
Micro Focus Revolve	[SIZ]: [AUT]
Micro Man Esti Mate	[PLAN] [SIZ] [EST]: [PLAN] [SIZE] [EST] [PLAN]
Micro Man II	[MGM]: [SCHE] [TRACK]
PADS	[EST] [SWM]: [PROD] // [SWM]
PCA Calc (with add-on)	[SIZ] [EST]: [AUT] [EST]
PRICE S	[SIZ] [EST] [EVAL]: [SIZE] [EST] [ANA] [PROD] [RISK] // [BENCH]
Productivity Manager	[PLAN] [SIZ] [EST] [SWM]: [DCC] [EST] [SWM] // [PLAN] [DEF] [TRACK] [MTRE ND]
Project Bridge Modeler	[PLAN] [SIZ] [EST]: [PLAN] [SIZE] [EST] [RISK]
Project Workbench	[PLAN] [MGM]: [SCHE] [TRACK] [ANA] // [PLAN]
PQM *Plus* (ProQMS)	[PLAN] [SIZ] [EST] [SWM]: [PLAN], [SIZE], [EXP], [EST], [DCC],
	[RISK], [VALUE] [DEFE] // [MTRACK], [DOC], [GUIDE]
Quality Xpert	[PLAN] [SIZ] [EST]: [PLAN] [SIZE] [QUA] [RISK]
SEER-SSM Softw. Sizing Model	[SIZ]: [SIZE]
SEER-SEM Software Evaluation	[PLAN] [EST] [MGM : [PLAN] [EST] [RISK] [DEF] [ANA] [SCHE]
SFERA	[SIZ] [EST]: [SIZE] [EST]
Size Planner	[SIZ]: [SIZE]
Size Plus	[SIZ]: [SIZE]
SLIM	[EST] [EVAL] : [EST] [RISK] [RELI] [PROD] [ANA] // [ASSESS]
SLIM Control	[MGM] [SWM]: [TRACK] [ANA] [CRTL] // [SWM]
SLIM Metrics	[SWM]: [SWM]
SMART Counter	[SIZE] : [DCC]
SMART Data	[SWM]: [SWM]
SMART Risk	[EST] [EVAL] : [EST] [PROD] // [BENCH] [BENCH]
Synergy	[PLAN] [SIZ] [EST] [SWM] [MGM]: [PLAN] [SIZE] [EST] [RISK] [ANA] // [SWM]
VIA/Recap - ESW Portfolio Analysis	[SIZ] [SWM] [EVAL]: [SWM] [AUT] [QUA] [ASSESS] // [BENCH]

Product	FP tool classification using codes
	Key: [**Primary feature**] // [**Secondary feature**]
	[**Strong characteristic**] [Weak characteristic]
AEM - Adaptive Estimating Model	[5] [5-A,B,C] // [8]
Asset - R	[4]
AutoPoint	[3]
Bachman FP Analyst	[3]
Before You Leap	[4] [5] [5-A,B] // [3]
CA - Estimacs	[5] [5-A,D] // [8]
CA - FPXpert	[2] // [9]
CA - Metrics	[7] [8]
CheckPoint (Checkmark)	[5] [5-A,B,C,D] [8] [7] // [0]
CIM Aid	[10]
Composer: FP Calculation Report	[3]
Costar	[5] [4]
Enterprise Software Planner	[5] // [4]
ESTEEM	[5] [5-C] [4]
firstCASE	[4] [5] [6] [0]
ForeSight	[5] [4] [5-C] [0]
FP Estimator	[1]
FP Fast	[0] [4] [5] [5-A] [6]
FP Manager	[1]
FP Mentor	[9] [10]
FP System II FPSII	[7] [4]
FP Tool	[4]
Function Point Workbench	[1] [0] // [9] [10]
GPM	[5] [4] // [0] [6]
LATURI	[4] [5] [5-A,B,C]
LDA - LINC Development Assistant	[3]
MARS	[7]
Metrics Manager	[7]
Micro Focus Revolve	[3]
Micro Man Esti Mate	[4] [5] // [0]
Micro Man II	[6]
PADS	[5-B] [7]
PCA Calc	[3] [5]
PRICE S	[4] [5] [5-A,B] [8] [0]
Productivity Manager	[1] [5] [7] // [0] [9]
Project Bridge Modeler	[0] [4] [5] [5-A]
Project Workbench	[6] [0] // [9]
PQM *Plus* (ProQMS)	[5] [1] [2] [4] [0] // [9] [10]
Quality Xpert	[0] [4] [5-A,C]
SEER-SSM Software Sizing Model	[4]
SEER-SEM Software Evaluation Model	[5] [5-A] [6] [0]
SFERA	[4] [5]
Size Planner	[4]
Size Plus	[4]
SLIM	[5] [5-A,B] [8]
SLIM Control	[6] [7]
SLIM Metrics	[7]
SMART Counter	[1]
SMART Data	[7]
SMART Risk	[5] [5-B] // [8]
Synergy	[0] [4] [5] [5-A,D,E] [6] [7]
VIA/Recap - ESW Portfolio Analysis	[7] [3] // [5-C] [8]

FP Tools by Category

1. FP Data Collection and Calculation
FP Estimator
FP Manager
FP Workbench
Productivity Manager
PQM *Plus*
SMART Counter

2. Expert System Which Aids with Counting of FPs
CA-FPXPert
PQM *Plus*

3. Automatic FP Counting
AutoPoint
Bachman FP Analyst
Before You Leap (with add-on)
LDA - LINC Development Assistant
Composer 3.0: FP Calculation Report
Micro Focus Revolve
PCA Calc add-on (Prototype)
VIA RECAP: ESW Portfolio Analysis

4. Project Sizing (High Level)
Asset R
Before You Leap*
COSTAR
Enterprise Software Planner   (Prototype)
ESTEEM
Firstcase
ForeSight
FP FAST
FP System II
FP Tool
GPM
LATURI
MicroMan EstiMate
PRICE S
Project Bridge Modeler
PQM Plus
Quality XPert
SEER - SSM
SFERA
SIZE Planner
SIZE Plus
Synergy

FP Tools by Category (cont'd)

5. Project Estimation - Prediction
AEM - Adaptive Estimating Model
Before You Leap
CA-Estimacs
CheckPoint
COSTAR
Entreprise Software Planner
ESTEEM
ForeSight
FP FAST
GPM
LATURI
MicroMan Esti-Mate
PCA Calc add-on (Prototype)
PRICE S
Productivity Manager
Project Bridge Modeler
PQM *Plus*
SEER - SEM
SFERA
SLIM
SMART Risk
Synergy

5-A. Project Estimation - Prediction: Risk
AEM Adaptive Estimation Model
Before You Leap
CA-Estimacs
CheckPoint
FP-Fast
LATURI
PRICE S
PQM *Plus*
Project Bridge Modeler
Quality Xpert
SEER - SEM
SLIM
Synergy

5-B. Project Estimation - Prediction: Productivity Analysis
AEM - Adaptive Estimating Model
Before You Leap
CA-Metrics
CheckPoint
LATURI
MARS
Metrics Manager
PADS   (Tool targeting this functionality specifically)
PRICE S
SMART Risk
SLIM

FP Tools by Category   (cont'd)

5-C. Project Estimation - Prediction: Quality
AEM - Adaptive Estimating Model
CheckPoint
ESTEEM
ForeSight
LATURI
Quality Xpert
VIA RECAP - ESW Portfolio Analysis

5-D. Project Estimation - Prediction: Corporate Value
CA-Estimacs
CheckPoint
PQM *Plus*
Synergy

6. Project Scheduling & Control / Management
Firstcase
FP FAST
GPM
Micro Man II
PQM *Plus*
Project Workbench
SLIM Control
Synergy

7. Software Metric Collection, Analysis & Reporting   [SWM]
CA-Metrics
CheckPoint
FP System II
MARS
Metrics Manager
PADS
Productivity Manager
SLIM Metrics
SMART Data
Synergy
VIA / RECAP - ESW Portfolio Analysis

FP Tools by Category   (cont'd)

8. Evaluation [Assessment & Comparisons]
AEM - Adaptive Estimation Model

CA-Metrics
CheckPoint
SEER - SEM
SLIM

9. FPA Training
FP Mentor[†]
CA-FPXPert (Guidance)
FP Workbench (Guidance)
Project Bridge Modeler (Guidance)
PQM *Plus* (Guidance)

10. FPA Documentation
CIM Aid [†]
FP Mentor
FP Workbench
PQM *Plus*

† **:** Tool targeting specifically the functionality

Product Index

Product	Vendor	Location	Phone
AEM - Adaptive Estimating Mode	Koch Productivity Consulting	Bel Air, MD	(410) 838-8721
Asset - R	Resource CalculationsInc.		
AutoPoint	Integrated Software Specialists Inc.	Schaumburg, IL	(708) 240-5070
Bachman FP Analyst	Cayenne Software Inc.	Burlington, MA	(617) 273-9003 Ext. 490
Before You Leap	Strategic Systems Technology	London, GB	(44) (171) 538-8228
CA - Estimacs	Computer Associates International Inc.	Fort Lee, NJ	(201) 585-6734
CA - FPXpert	Computer Associates International Inc.	Fort Lee, NJ	(201) 585-6734
CA - Metrics	Computer Associates International Inc.	Fort Lee, NJ	(201) 585-6734
CheckPoint	Software Productivity Research	Burlington, MA	(617) 273-0140 Ext. 110
CIM Aid	CIM - CRIM	Montréal, PQ	(514) 398-1234
Composer: FP Calculation Report	Texas Instruments Inc.	Plano, TX	(214) 575-3689
Costar	SofStar Systems	Amherst, NH	(603) 672-0987
Enterprise Software Planner	Software Productivity Research.	Burlington, MA	(617) 273-0140 Ext. 110
ESTEEM	CAP Gemini America	New York, NY	(212) 944-6464
Firstcase	AGS Management Systems	King of Prussia, PA	1 800 220-2471
ForeSight	Lockheed Martin Price Systems	Mt. Laurel, NJ	(609) 866-6790
FP Estimator	CIM - SELAM	Montréal, PQ	(514) 355-2872
FP Fast	Olivetti Group - SIP	Milan, Italy	(02) 48366300
FP Manager	ABT Corporation	New York, NY	(212) 219-8945
FP Mentor	Angel Group	Las Colinas, TX	(214) 491-2686
FP System II - FPSII	MSB2	Mequon, WI	(414) 243-9130
FP Tool	Durr Comsoft	Munich,Germany	(49) 89- 22 85 406
Function Point Workbench	Charismatek Software Metrics	Charismatek, Austr	(61)(0) 3 9696 1255
GPM	Interfase S.A.	Montevideo, UY	(5982) 49 46 00
LATURI	Information Technology Development	Helsinki, Finland	(358) (0) 685-1200
LDA - LINC Development Assista	Unisys	New York, NY	(212) 504-9600
MARS	Applied Information Development		
Metrics Manager	ABT Corporation	New York, NY	(212) 219-8945
Micro Focus Revolve	Micro Focus, Ltd.	Newbury Berks., GB	+(1635) 32646
Micro Man Esti Mate	Protellices Software Inc.	Santa Monica, CA	(310) 393-4552
Micro Man II	Protellices Software Inc.	Santa Monica, CA	(310) 393-4552
PADS	Quantitative Software Management Inc	McLean, VA	(703) 790-0055
PCA Calc add-on	Hydro Québec - Systemhouse	Montréal, Québec	(514) 866-2891
PQM Plus	QP Management Group Inc.	Stoneham, MA	(617) 438-2692
PRICE S	Lockheed Martin Price Systems	Mt. Laurel, NJ	(609) 866-6790
Productivity Manager	Productivity Management Group Inc.	Williamsville,NY	(716) 633-0621
Project Bridge Modeler	ABT Corporation	New York, NY	(212) 219-8945
Project Workbench	ABT Corporation	New York, NY	(212) 219-8945
Quality Xpert	Quality Xperience Solutions	Chicago, IL	(312) 667-9890
SEER - Software Sizing Model	G A SEER Technologies	Los Angeles, CA	(310) 670-3404
SEER - Software Evaluation Model	G A SEER Technologies.	Los Angeles, CA	(310) 670-3404
SFERA	Data Processing Organization	Rome, Italy	(39) (6) 322.68.87
Size Planner	Quantitative Software Management Inc	McLean, VA	(703) 790-0055
Size Plus	GEC - Marconi Systems Technologies	Chantilly, VA	(703) 263-1260
SLIM	Quantitative Software Management Inc	McLean, VA	(703) 790-0055
SLIM Control	Quantitative Software Management Inc	McLean, VA	(703) 790-0055
SLIM Metrics	Quantitative Software Management Inc	McLean, VA	(703) 790-0055
SMART Counter	DDB Software Inc.	Orange Park, FL	(904) 213-9836
SMART Data	DDB Software Inc.	Orange Park, FL	(904) 213-9836
SMART Risk	DDB Software Inc.	Orange Park, FL	(904) 213-9836
Synergy	CMD Corporation	Richardson, TX	(800) 644-8173
VIA / RECAP - ESW Portfolio	VIASOFT Inc.	Schaumburg, IL	(602) 952-0060

Analysis

Vendor Index

Vendor	Product	Location	Phone
AGS Management Systems	Firstcase	King of Prussia, PA	1 800 220-2471
Angel Group	FP Mentor	Las Colinas, TX	(214) 491-2686
ABT Corporation.	FP Manager	New York, NY	(212) 219-8945
ABT Corporation.	Metrics Manager	New York, NY	(212) 219-8945
ABT Corporation.	Project Bridge Modeler	New York, NY	(212) 219-8945
ABT Corporation.	Project Workbench	New York, NY	(212) 219-8945
ABT Corporation.	MARS		
Cayenne Software Inc.	Bachman FP Analyst	Burlington, MA	(617) 273-9003 Ext. 490
CAP Gemini America	ESTEEM	New York, NY	(212) 944-6464
Charismatek Software Metrics	Function Point Workbench	Victoria, Australia	(61)(0) 3 9696 1255
CIM - SELAM	FP Estimator	Montréal, PQ	(514) 355-2872
CIM - CRIM	CIM Aid	Montréal, PQ	(514) 398-1234
CMD Corporation	Synergy	Richardson, TX	(800) 644-8173
Computer Associates International Inc.	CA - FPXpert	Fort Lee, NJ	(201) 585-6734
Computer Associates International Inc.	CA - Estimacs	Fort Lee, NJ	(201) 585-6734
Computer Associates International Inc.	CA - Metrics	Fort Lee, NJ	(201) 585-6734
Data Processing Organization	SFERA	Rome, Italy	(39) (6) 322.68.87
DDB Software Inc.	SMART Counter	Orange Park, FL	(904) 213-9836
DDB Software Inc.	SMART Data	Orange Park, FL	(904) 213-9836
DDB Software Inc.	SMART Risk	Orange Park, FL	(904) 213-9836
Durr Comsoft	FP Tool	Munich,Germany	(49) 89- 22 85 406
G A SEER Technologies	SEER - Software Sizing Model	Los Angeles, CA	(310) 670-3404
G A SEER Technologies.	SEER - Software Evaluation Mod	Los Angeles, CA	(310) 670-3404
GEC - Marconi Systems Technologies	Size Plus	Chantilly, VA	(703) 263-1260
Information Technology Development	LATURI	Helsinki, Finland	(358) (0) 685-1200
Integrated Software Specialists Inc.	AutoPoint	Schaumburg, IL	(708) 240-5070
Interfase S.A.	GPM	Montevideo, UY	(5982) 49 46 00
Koch Productivity Consulting	AEM - Adaptive Estimating Mode	Bel Air, MD	(410) 838-8721
Lockheed Martin Price Systems	ForeSight	Mt. Laurel, NJ	(609) 866-6790
Lockheed Martin Price Systems	PRICE S	Mt. Laurel, NJ	(609) 866-6790
Micro Focus, Ltd.	Micro Focus Revolve	Newbury Berks.,GB	+(1635) 32646
MSB2	FP System II - FPSII	Mequon, WI	(414) 243-9130
Olivetti Group - SIP	FP Fast	Milan, Italy	(02) 48366300
Productivity Management GroupInc.	Productivity Manager	Williamsville,NY	(716) 633-0621
Protellices Software Inc.	Micro Man Esti Mate	Santa Monica, CA	(310) 393-4552
Protellices Software Inc.	Micro Man II	Santa Monica, CA	(310) 393-4552
QP Management Group Inc.	PQM *Plus*	Stoneham, MA	(617) 438-2692
Quality Xperience Solutions	Quality Xpert	Chicago, IL	(312) 667-9890
Quantitative Software Management Inc	SLIM	McLean, VA	(703) 790-0055
Quantitative Software Management Inc	SLIM Control	McLean, VA	(703) 790-0055
Quantitative Software Management Inc	SLIM Metrics	McLean, VA	(703) 790-0055
Quantitative Software Management Inc	PADS	McLean, VA	(703) 790-0055
Quantitative Software Management Inc	Size Planner	McLean, VA	(703) 790-0055
Resource Calculations Inc.	Asset - R		
SofStar Systems	Costar	Amherst, NH	(603) 672-0987
Software Productivity Research	CheckPoint	Burlington, MA	(617) 273-0140 Ext. 110
Software Productivity Research	Enterprise Software Planner	Burlington, MA	(617) 273-0140 Ext. 110
Strategic Systems Technology	Before You Leap	London, GB	(44) (171) 538-8228
Hydro Québec - Systemhouse	PCA Calc add-on	Montréal, PQ	(514) 866-2891
Texas Instruments Inc.	Composer: FP Calculation Report	Plano, TX	(214) 575-3689
Unisys	LDA - LINC Development Assista	New York, NY	(212) 504-9600
VIASOFT Inc.	VIA / RECAP ESW Portfo	Schaumburg, IL	(602) 952-0060

Analysis

FP Tool Capability Matrix
Summary

FP Tool	Features							
	Planning	**Sizing**	**Estimation**	**Management**	**Measurement**	**Evaluation**	**FPA Training**	**FP Document**
AEM - Adaptive Estimating Model			●			●		
Asset - R		●						
AutoPoint		●						
Bachman FP Analyst		●						
Before You Leap (with add-on)		●	●					
CA - Estimacs			●					
CA - FPXpert		●					●	
CA - Metrics					●	●		
CheckPoint (Checkmark)	◦		●		●	●	◦	
CIM Aid								●
Composer: FP Calculation Report		●						
Costar		●	●					
Enterprise Software Planner		●	●					
ESTEEM		●	●					
Firstcase	◦	●	●	●				
ForeSight	◦	●	●					
FP Estimator		●						
FP Fast	◦	●	●	◦				
FP Manager		●						
FP Mentor							●	●
FP System II - FPSII		●			●			
FP Tool		●						
FP Workbench	◦	●					●	●
GPM	◦	●	●	◦				
LATURI		●	●					
LDA - LINC Development Assistant		●						
MARS					●			

FP Tool Capability Matrix
Summary

FP Tool	Features							
	Planning	Sizing	Estimation	Management	Measurement	Evaluation	FPA Training	FP Document
Metrics Manager					●			
Micro Focus Revolve		●						
Micro Man Esti Mate	○	●	●					
Micro Man II				●				
PADS			●			○		
PCA Calc add-on		●	●					
PRICE S	○	●	●			○		
Process Contiuum Estimator	○	●	●					
Process Contiuum Project Manager	○			●				
Productivity Manager	○	●	●		●			
Project Bridge Modeler	●	●	●					
Project Workbench	○			●				
PQM *Plus* (ProQMS)	○	●	●		○		●	●
Quality Xpert	○	●	●					
SEER - Software Sizing Model		●						
SEER - Software Evaluation Model	○		●	●				
SFERA	○	●	●					●
Size Planner		●						
Size Plus		●						
SLIM			●			●		
SLIM Control				●	○			
SLIM Metrics					●			
SMART Counter		●						
SMART Data					●			
SMART Risk			●			●		
Synergy	●	●	●	○	●			
VIA / RECAP - ESW Portfolio Analysi		●			●	●		

FP Tool Capability Matrix
Detailed Features

FP Tool	Plan		Sizing				Estimation										Management				Measurement				Evaluation			Train.		Doc
	Pro	Plan	DCC	Exp	Aut	High	Eff	Dur	Staff	Cost	Risk	Qua	Prod	Val	What	Other	Sche	Track	Trend	Cont	MM	Track	Analy	Tren	Asse	Base	Bench	Guid	Tut.	Doc.
AEM - Adaptive Estimating Model											●	●	●			●												●		
Asset - R																														
AutoPoint					●																									
Bachman FP Analyst					●																									
Before You Leap (with add-on)			●		●		●	●	●	●	●		●		●	●														
CA - Estimacs							●	●	●	●	●			●	●	●														
CA - FPXpert				●																								●		
CA - Metrics																					●	●	●	●	●	●	●			
CheckPoint (Checkmark)		●					●	●	●	●	●	●	●	●	●	●					●	●	●	●	●	●	●	○		
CIM Aid																														●
Composer: FP Calculation Report					●																									
Costar							●	●							●	●														
Enterprise Software Planner							●		●																					
ESTEEM													●																	
Firstcase		○								●							●	●		●					●					
ForeSight	●	●				●	●	●	●	●			●		●	●														
FP Estimator				●																										
FP Fast	○				●		●	●	●	●	●						●													
FP Manager				●																										
FP Mentor			○																										●	●
FP System II - FPSII																		●												
FP Tool																														
FP Workbench		●		●																								●		●
GPM		●				●	●	●	●	●								○												
LATURI						●	●	●	●	●	●	●	●																	
LDA - LINC Development Assistant					●																									
MARS																					●	●	●	●						

FP Tool Capability Matrix
Detailed Features

FP Tool	Plan		Sizing				Estimation										Management				Measurement				Evaluation			Train.		Doc
	Pro	Plan	DCC	Exp	Aut	High	Eff	Dur	Staff	Cost	Risk	Qua	Prod	Val	What	Other	Sche	Track	Trend	Cont	MM	Track	Analy	Tren	Asse	Base	Bench	Guid	Tut.	Doc.
Metrics Manager																					●	●	●	●				●		
Micro Focus Revolve					●																									
Micro Man Esti Mate		●					●																							
Micro Man II																	●	●	●											
PADS																					○		●							
PCA Calc add-on					●																									
PRICE S	○					●	●			●	●		●			●											●			
Process Contiuum Estimator		○					●	●																						
Process Contiuum Project Manager		○															●	●		●										
Productivity Manager		●	●				●	●	●				●								●	●		●					●	
Project Bridge Modeler	●	●				●	●	●	●		●			●	●															
Project Workbench	○																●	●	●											
PQM Plus (ProQMS)		○	●	●		●	●	●				●	●	●			●	●			●	●	●	●			●			●
Quality Xpert	○										●	●																		
SEER - Software Sizing Model		●				●																								
SEER - Software Evaluation Model		●					●	●	●		●	●			●	●	●													
SFERA		○				●	●	●		●																				●
Size Planner			●			●																								
Size Plus			●																											
SLIM						●	●	●	●	●	●	●	●		●	●										●				
SLIM Control																		●	●	●	○									
SLIM Metrics																					●	●								
SMART Counter			●																											
SMART Data																					●									
SMART Risk							●			●		●	●		●										●	●	●			
Synergy	●	●				●	●		●		●		●		●		○				●	●	●							
VIA / RECAP - ESW Portfolio					●																●	●	●	●				●		

Classification by Country

Product	Country
Function Point Workbench	Australia
CIM Aid	Canada
FP Estimator	Canada
PCA Calc add-on	Canada
Asset - R	England
Before You Leap	England
LATURI	Finland
FP Tool	Germany
FP Fast	Italy
SFERA	Italy
GPM	Uruguay
AEM - Adaptive Estimating Model	USA
AutoPoint	USA
Bachman FP Analyst	USA
CA - Estimacs	USA
CA - FPXpert	USA
CA - Metrics	USA
CheckPoint	USA
Composer: FP Calculation Report	USA
Costar	USA
Enterprise Software Planner	USA
ESTEEM	USA
Firstcase	USA
ForeSight	USA
FP Manager	USA
FP Mentor	USA
FP System II FPSII	USA
LDA - LINC Development Assistant	USA
MARS	USA
Metrics Manager	USA
Micro Focus Revolve	USA
Micro Man Esti Mate	USA
Micro Man II	USA
PADS	USA
PRICE S	USA
Productivity Manager	USA
Project Bridge Modeler	USA
Project Workbench	USA
PQM *Plus* (Pro *QMS*)	USA
Quality Xpert	USA
SEER - Software Sizing Model	USA
SEER - Software Evaluation Model	USA
Size Planner	USA
Size Plus	USA
SLIM - SLIM Control - SLIM Metrics	USA
SMART Counter	USA
SMART Data	USA
SMART Risk	USA
Synergy	USA
VIA / RECAP ESW Portfolio Analysis	USA

Classification by Platform

PC Compatible
AEM - Adaptive Estimating Model
Asset - R
Bachman FP Analyst
Before You Leap
CA - Estimacs
CA - FPXpert
CA - Metrics
CheckPoint
CIM Aid
Costar
Enterprise Software Planner
Firstcase
ForeSight
FP Estimator
FP Fast
FP Manager
FP Mentor
FP System II - FPSII
FP Tool
Function Point Workbench
GPM
LATURI
MARS
Micro Focus Revolve
Metrics Manager
Micro Man Esti-Mate
Micro Man II
PADS
PCA Calc
PRICE S
Productivity Manager
Project Bridge
Project Workbench
PQM *Plus*
Quality Xpert
SEER - Software Sizing Model
SEER - Software Evaluation Model
SFERA
Size Planner
Size Plus
SLIM
SLIM Control
SLIM Metrics
SMART Counter
SMART Data
SMART Risk
Synergy

Macintosh Compatible
SEER - Software Evaluation Model

WorkStation Compatible
AutoPoint
CheckPoint
PRICE S
POM *Plus* (in development)
Quality Xpert
SEER - SEM
Size Planner

Mini Compatible
AutoPoint
PRICE S
Quality Xpert

Mainframe Compatible
Asset - R
Composer: FP Report
LINC - LDA
Quality Xpert
Size Plus
VIA / RECAP

Classification by Operating System

FP Tool	DOS Compatibility
AEM - Adaptive Estimating Model	DOS / Win 3.1
Asset - R	DOS - VMS
AutoPoint	DOS / Win 3.1 (Client) - OS/400 v2.3 (Server)
Bachman FP Analyst	DOS / Win 3.1
Before You Leap	DOS / Win 3.1 - Win 95
CA - Estimacs	DOS
CA - FPXpert	DOS
CA - Metrics	DOS
CheckPoint	DOS / Win 3.1 - Unix / XWin - Motif
CIM Aid	DOS / Win 3.1
Composer	MVS
Costar	DOS / Win 3.1 - MVS
Enterprise Software Planner	DOS / Win 3.1
Esteem	DOS / Win 3.1 - OS/2 / OS/2Win
Firstcase	DOS / Win 3.1 - Win 95 - Win NT
ForeSight	DOS / Win 3.1 - Win 95
FP Estimator	DOS / Win 3.1 - Win 95
FP Fast	DOS / Win 3.1
FP Manager	DOS / Win 3.1
FP Mentor	DOS / Win 3.1
FP System II - FPSII	DOS
FP Tool	DOS / Win 3.1 - OS/2 OS/2Win - Unix /XWin
Function Point Workbench	DOS / Win 3.1 - Win 95 Win NT OS/2 OS/2Win
GPM	DOS
LATURI	DOS / Win 3.1
LINC - LDA	DOS / Win 3.1 (Client) Unix / XWin (Server)
MARS	DOS
Metrics Manager	DOS / Win 3.1 - Win 95
Micro Focus Revolve	DOS / Win 3.1
Micro Man Esti-Mate	DOS
Micro Man II	DOS
PADS	DOS / Win 3.1 - Win 95
PCA Calc	DOS / Win 3.1
POM *Plus*	DOS / Win 3.1 - Win 95 - OS/2 OS/2Win - Unix*/XWin
PRICE S	DOS / Win 3.1 - 95 - OS/2 OS/2Win - Unix/XWin - Sun OS
Productivity Manager	DOS / Win 3.1 - Win 95
Project Bridge	DOS / Win 3.1
Project Workbench	DOS / Win 3.1
Quality Xpert	DOS / Win 95 - OS/2 - Unix - MVS - VM
SEER - Software Sizing Model	DOS / Win 3.1 - Win 95
SEER - Software Evaluation Model	DOS / Win 3.1 - Win 95 - OS/2* - Unix - System 6.08+
SFERA	DOS / Win 3.1
Size Planner	DOS / Win 3.1 - Unix / XWin - Motif
Size Plus	Unix (AIX - SCO) & MVS
SLIM	DOS / Win 3.1 - Win 95
SLIM Control	DOS / Win 3.1 - Win 95
SLIM Metrics	DOS / Win 3.1 - Win 95
SMART Counter	DOS / Win 3.1 - Win 95
SMART Data	DOS / Win 3.1 - Win 95
SMART Risk	DOS / Win 3.1 - Win 95
Synergy	DOS / Win 3.1 - Win 95
VIA Recap	OS/2 OS/2Win (Client) & IBM MVS/XA or /ESA (Server)

*: in test

Price Structure

FP Tool	List Price [Single license copy - Site license]	Maintenance Fee % / year
AEM - Adaptive Estimating Model	[USD ... - 18,000]	...
Asset - R	Call for price list	...
AutoPoint	[USD 46,280 Server - USD 668 / Client]	15
Bachman FP Analyst	Call for price list	...
Before You Leap	[£ 795 - 1,395]	10
CA - Estimacs	[USD 24,260 - 70,040]	15
CA - FPXpert	[USD 9,870 - 54,600]	15
CA - Metrics	[USD 12,180 - 70,040]	15
CheckPoint	Call for price list	...
CIM Aid	Call for price list	...
Composer: FP Report	Not available separadly from Composer	...
Costar	[USD 800 (PC), 1,500 (VMS) - ....]	...
Enterprise Software Planner	Call for price list	...
Esteem	[USD ... - 18,000]	...
ForeSight	Call for price list	
Firstcase	[USD 37,000 - ...]	...
FP Estimator	Call for price list	...
FP Fast	Call for price list	10
FP Manager	[USD 1,500 - .....]	...
FP Mentor	[USD 249 - 1,999]	...
FP System II - FPSII	[USD 2,595 - .....]	...
FP Tool	Call for price list	...
Function Point Workbench	[USD 1,495 - 10,000]	12.5
GPM	[USD 1,000 - 2,000]	...
LATURI	[USD 4,000 - 10,000]	10
LINC - LDA	Call for price list	...
MARS	Call for price list	...
Metrics Manager	[USD 7,500 - 15,000]	...
Micro Focus Revolve	Call for price list	...
Micro Man Esti-Mate	Call for price list	...
Micro Man II	Call for price list	...
PADS	Call for price list	...
PCA Calc	Call for price list	...
PRICE S	[USD 15,000 - 25,000]	...
Productivity Manager	[USD 4,900 - 49,000]	15
Project Bridge Modeler	[USD 5,900 - ....]	...
Project Workbench	[USD 1,275 - ....]	...
PQM *Plus*	[USD 5,900 - ....]	15
Quality Xpert	Call for price list	...
SEER - Software Sizing Model	[USD 1,950 - 3,300]	100
SEER - Software Evaluation Model	[USD 15,000 - 19,500]	100
SFERA	It. Lire 2,000,000	...
Size Planner	Call for price list	...
Size Plus	Call for price list	...
SLIM	[USD 2,000 - 30,000]	100
SLIM Control	[USD 2,000 - 30,000]	100
SLIM Metrics	[USD 2,000 - 30,000]	100
SMART Counter	[USD 595 - ....]	0
SMART Data	Call for price list	0
SMART Risk	Call for price list	0
Synergy	Call for price list	
VIA Recap	Call for price list	15

Developer & Vendor Addresses

Organization	FP Tool

AGS Management Systems
    1012 W. Ninth Ave.
    King of Prussia,   PA   19406
    USA
	Developer and Vendor: **Firstcase**
	
	Tel: (610) 265-1550 1 800 220-2471
	Fax: (610) 265-1230
	Email: --

Angel Group
    Tonja Pfister
    6605 Rolling Vista, Suite 101
    Dallas,   TX   75248
    USA
	Developer and Vendor: **FP Mentor**
	
	Tel: (214) 458-7052
	Fax: (214) 458-7053
	Email: 73163,426@compuserve.com
	http://www.angelgroup.com

ABTCorporation
(Applied Business Technology)
 	
    Andrew Farver
    361 Broadway
    New York, NY   10013-3998
    USA
	Developer and Vendor:
	         Project Bridge
	         FP Manager
	         Metrics Manager
	         Project Workbench
	
	Tel: (212) 219-8945 Ext: 0315
	Fax: (212) 334-9523
	Email: --
	http://www.abtcorp.com

Applied Information Development Inc.
    ....
    USA
	Vendor: **MARS**
	
	Tel: ()
	Fax: ()
	Email : --

CAP Gemini America
 	
    1114 Ave. of the Americas, 29th floor
    New York, NY 10036
    USA
	Vendor: **ESTEEM**
	
	Tel: (212) 944-6464
	Fax: (212) 719-5346
	Email : --

Cayenne Software Inc.
    Robert Curley
    8 New England Executive Park
    Burlington,   MA   01803
    USA
	Developer and Vendor: **Bachman FP Analyst**
	
	Tel: (617) 273-9003 Ext. 432
	          1 800 5282388 (Toll Free)
	Fax: (617) 273-4371
	Email : curley@cayennesoft.com
	http://www.cayenne.com

Charismatek Software Metrics
    Paul Radford
    Managing Director
    175   Dorcas Street
    South Melbourne,   Victoria   3205
    Australia
	Developer: **FP WorkBench**
	
	Tel: (61) (0) 3 9696 1255
	Fax: (61) (0) 3 9696 1204
	Email: --

Organization	FP Tool
CIM	Co-Developer and Vendor: **CIM Aid**

Centre d'Interêt sur les Métriques de Montréal Montréal , PQ Canada	**FP Estimator** Tel: (514) 987-8900 Fax: (514) 987-8477 Email: abran.alain@er.uqam.ca
CMD Corporation John V. Olsen Manager, Eastern Region 51 Monroe, Suite 1700 Rockville, MD 20850 USA	Developer and Vendor: **Synergy** Tel: (301) 738-8835 Fax: (301) 738-8803 Email: --
Computer Associates InternationalInc. Andrea K. Hanlon Marketing Specialist Fort Lee Executive Park Two Executive Drive Fort Lee, NJ 072024 USA	Vendor: **CA-Estimacs** **CA-FPExpert** **CA-Metrics** Tel: (201) 585-6734 1 800 592-0009 Fax: (201) 585-6746 Email: --
Computer Power GroupInc. David R. Kniefel VP National Director 10 Parsonage Road, Suite 212 Edison, NJ 08837 USA	Developer: **Project Bridge** **FP Manager** **Metrics Manager** **Project Workbench** Tel: (908) 494-9333 Fax: (908) 494-9305 Email : 73444,442@compuserve.com
CRIM Centre de Recherche Informatique de Montréal 1801, McGill College Ave., Suite 800 Montréal , PQ Canada	Developer : **CIM Aid** Tel: (514) 398-1234 Fax: (514) 398-1244 Email: --
DPO - Data Processing Organization S. r. L. Roberto Meli Via Flaminia, 217 00196 Rome Italy	Vendor: **SFERA** Tel: (39) (6) 322.68.87 Fax: (39) (6) 323.3628 http://www.vol.it/dpo

Organization	FP Tool

DDB Software Inc.
Jennifer Pannell
1935 Salt Myrtle Lane
Orange Park,   FL   32073
USA
 	
certified tool: SMART Counter
	Developer and Vendor:
	      SMART Counter
	      SMART Tracker - Risk - Data
	
	Tel: (904) 213-9836
	Fax: (904) 215-0444
	Email: 75663.672@compuserve.com

Development Support Center Inc. William J. Hufschmidt Principal 1625 Lindhurst Drive, Suite 100 Elm Grove, WI 53122 USA	Vendor: **FPSII** Tel: (414) 789-9190 Fax: (414) 789-9180 Email : --
Dürr Comsoft Tal 30 D-80331 Munich Germany	Vendor: **FP Tool** Tel: (49) (89) 22 85 406 Fax: (49) (89) 22 89 459 Email:
GA SEER Technologies **Division of Galorath Associates Inc.** Miles Nesman Business Development Manager 100 N. Sepulveda Blvd., Suite 1801 El Segundo, CA 90245 USA	Vendor: **SEER-SSM** Developer and Vendor: **SEER-SEM** Tel: (310) 414-3222 Fax: (310) 414-3220 Email: mnesman@gaseer.com
GEC - Marconi Systems Technology 4115 Pleasant Valley Road Suite 100 Chantilly, VA 22021 USA	Vendor: **Size Plus** Tel: (703) 263-1260 Fax: (703) 263-1533 Email: --
Information Technology Development Centre Risto Nevalainen Salomonkatu 17 A, 10 kervos 00100 Helsinki Finland	Developer and Vendor: **LATURI** Tel: (358) (9) 685-1200 Fax: (358) (9) 685-1616 Email: --
Integrated Software Specialists Inc. Michael D. Locascio President 1701 East Woodfield Road, Suite 911 Schaumburg, IL 60173 USA	Developer and Vendor: **Autopoint** Tel: (708) 240-5070 Fax: (708) 240-5073 Email: --

Organization	FP Tool
INTERFASE S.A.	Developer and Vendor: **GPM**

Juan Grompone - Director Bulevar España 2094 Montevideo 11200 Uruguay	Tel: (5982) 49 46 00 Fax: (5982) 49 46 00 Email: UY33507@ANTEL.COM.UY
Koch Productivity Consulting - KPC Warren Koch President 814 Pecan Court Bel Air, MD 21014 USA	Developer and Vendor: **AEM - Adaptive Estimate Model** Tel: (1) (410) 838-3310 Fax: (1) (410) 265-0889 Email: --
Lockheed Martin PRICE Systems Arlene French Minkiewicsz Senior Software Design Engineer 700 East Gate Drive, Suite 200 Mt. Laurel, NJ 08054 USA	Developer and Vendor: **PRICE S** **ForeSight** Tel: (609) 866-6790 1 800 43PRICE Fax: (609) 866-6789 Email: arlene.minkiewicz@den.mmc.com
Micro Focus Ltd. Speen Court 7 Oxford Road Newbury, Berkshire RG14 1PB England	Developer and Vendor: **Micro Focus Revolve** Tel: +1635 32646 Fax: +1635 33966 Email: -- http://www.mfltd.co.uk
MSB2 Daniel G. Bradley 344 West Bonniwell Road Mequon, WI 53097-1712 USA	Developer and Vendor: **FPSII** Tel: (414) 243-9130 Fax: (414) 243-9130 Email : --
Olivetti GROUP Technology S. p. A. Roberto Ciampoli Via E. Cialdini, 37 - Torre "C" Milan 20161 Italy	Vendor: **FP Fast** Tel: (39) (2) 66 20 30 02 Fax: (39) (2) 66 22 12 78 Email: --
PLATINUM technology Inc. Karen Beaubien 1815 S. Meyers Road Oakbrook Terrace, IL 60181 USA	Developer and Vendor: **Process Continuum Estimator** **Process Continuum Project Manager** Tel: (310) 337-5086 Fax: (310) 451-2888 Email: --

Organization	FP Tool
Productivity Management Group Inc. Caroline Knight Vice President	Developer and Vendor: **Productivity Manager**

160 Lawrence Bell Drive, Suite 122 Williamnsville, NY 14221-7897 USA	Tel: (716) 633-0621 Fax: (716) 633-1880 Email: --
Protellicess SoftwareInc. 429 Santa Monica Boulevard Suite 460 Santa Monica, CA 90401 USA	Developer and Vendor: **Micro Man Esti-Mate, MicroMan II** Tel: (310) 393-4552 Fax: (310) 451-2888 Email: --
Q###P Management Group Inc. Scott L. Goldfarb President 10 Bow Street Stoneham, MA 02180 USA	Vendor: **PQM *Plus*** (formerly Pro QMS) Tel: (617) 438-2692 Fax: (617) 438-5549 Email: --
Quality Xperience Solutions Jacqueline Jones 5050 South Lake Shore Drive Suite 3101 Chicago, IL 60615 USA	Vendor: **Quality Xpert** Tel : (312) 667-9890 Fax: (361) 667-9819 Email: --

Quantitative Software Management Inc.
Doug Putnum
2000 Corporate Ridge Suite 900
McLean, VA 22 102
USA
	Developer and Vendor : **SLIM - SLIM Control**
	      SLIM Metrics
	       Size Planner
	       PADS
	
	Tel: (703) 790-0055
	Fax: (703) 749-3795

Resource Calculations, Inc. .... England	Vendor : **ASSET-R** Tel: Fax: Email: --
SELAM - Software Engineering Laboratory in Applied Metrics Jean-Marc Desharnais 7415, rue Beaubien Est, Suite 509 Anjou , PQ H1M 3R5 Canada	Developer : **FP Estimator** Tel: (514) 355-2872 Fax: (514) 355-2600 Email: jmdeshar@riq.qc.ca

Organization	FP Tool
SofStar Systems 28 Ponemah Road Amherst, NH 03031 USA	Vendor : **Costar** Tel: (603) 672-0987 Fax:

	Email: --
Software Productivity Research Richard Gazoorian Director, Regional Sales One New England Executive Park Burlington , MA 01803-5005 USA	Developer and Vendor: **Checkpoint** **Entreprise Softw.** **Planner** Vendor: **FP Workbench** Tel: (617) 273-0140 Ext. 110 Fax: (617) 273-5176 Email: richg@spr.com www: http://www.spr.com
Strategic Systems Technology Ltd. Nicolas A. Justice Managing Director 14 Landons Close Jamestown Harbour Prestons Road London E14 9QQ England	Developer and Vendor: **Before You Leap Win** **Before You Leap** **MKII** Tel: (+44) (0) (171) 538-8228 Fax: (+44) (0) (171) 515-3887 Email: 100112,3253@compuserve.com
System House - SHL Québec 740 Notre Dame ouest Montréal, PQ Canada	Developer and Vendor: **PCA- Calc add-on** Tel: (514) 866-2891 Fax: .... Email: ......
Texas IntrumentsInc. Frank Mazzucco Total Quality Manager 6620 Chase Oaks Blvd. P.O Box 869305 MS 8504 Plano, TX 75023 USA	Developer and Vendor: **Composer / FP Report** Tel: (214) 575-3689 Fax: (214) 575-4268 Email: mazz@msg.ti.com
Union Pacific Technologies Ronald L. Schaefer Senior Manager 7930 Clayton Road St. Louis, MO 63117-1368 USA	Developer: **PQM** *Plus* (former Pro QMS) Tel: (314) 768-7422 Fax: (314) 768-0927 Email: Ron_Schaefer@notes.up.com
Unisys 110 Wall Street New York, NY 10005 USA	Developer and Vendor: **LDA** Tel: (212) 504-9600 Fax: Email:

Organization	FP Tool
Viasoft Inc. Larry Classen 3033 North 44th Street Phoenix, AZ 85018 USA	Developer and Vendor: **VIA RECAP** Tel: (602) 952-0060 Fax: (602) 840-4068 Email: Larry_Classen@viasoft.com

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Automatic FP Counting Tools

This section summarizes the answers to the three research questions that motivated the present FP tool market survey:

- What are the automatic counting tools (type 3 tools) are currently being marketed ?
- What are the features of these tools ?
- What are the major steps adopted by these tools to perform automatic FP counting ?

1 - Automatic FP Counting Tools Currently Being Marketed:

Automatic FP Counting
AutoPoint
Before You Leap with add-on*
Cayenne / Bachman FP Analyst
LDA - LINC Development Assistant
Composer (FP Calculation Report)
Micro Focus Revolve
PCA Calc add-on* (prototype)
VIA RECAP: ESW Portfolio Analysis
Total **8**

*: Manual FP tool modified to perform automatic counting

Currently, only AutoPoint, Bachman FP Analyst, Composer, LDA and VIA Recap focus primarily on the problem of reliable automatic FP counting.

AutoPoint is a product bound tightly to the AS/400 architecture (taking advantage of the AS/400 integrated data dictionary). It features automatic detection of application changes   (with automatic FP recalculation).

Cayenne FP Analyst (formerly Bachman FP Analyst) calculates FP automatically from Cayenne models. Preliminary estimates can be made early in the development life cycle where requirements are already completed but a fully attributed data flow isn't yet available. Detailed estimates are derived from data flow diagrams built into the Cayenne/Analyst. Users are able to modify functions from the initial interpretations to obtain a more correct model from which to calculate FPs, in addition to adjusting calculations based on the 14 GSC complexity factors. Outputs are in the form of FP reports (summary or detailed) and results can be exported to productivity or estimation tools.

Composer's FP output data is in the form of an FP calculation report. Since the report is completely automated, there is no opportunity, through human interaction, to specify for example, which components should be counted. FP counts are based on the business application model (Entity-Relationship diagram and Dialog Flow / Process Action diagram) stored in the Composer repository.

Unisys's LDA FP output data is also in the form of a report. FP counts are based on the graphical business model stored in the central repository.

VIASOFT's VIA Recap performs automatic FP calculation using the Portfolio Analysis component (part of VIASOFT's ESW suite). In addition to the FP measures it proposes many other metrics, based essentially on lines of code (Halstead, McCabe, McClure, Control Flow Knots). All metrics including FP, are stored in VIASOFT's Application Knowledge Repository. Comparison of one application with other selected applications can be performed, as well as quality assessment and trend analysis.

Before You Leap has a well-established customer base in England, but up tol now hasn't had an significant penetration in the North American FP tool market. By means of an add-on, the tool can input data - DFD and ER-D definitions - directly from CASE tools (System Architect - Excelerator - IEW) thereby rendering some phases of the FP counting process automatic.

The Cayenne FP Analyst is still supported following the merge between Bachman Information Systems and Cadre Technologies Inc. The newly merged company - Cayenne - has as its primary interest the object-oriented methodology and the development of OO products, but the original product is still available.

Micro Focus Revolve is primarily a software analysis tool which essentially addresses the programming environment issues: management of very large systems, analysis of changing impacts, walk-throughs etc. It produces a many LOC metrics (Halstead, McCabe, McClure) besides FP, as well as statistics (number of lines, calls to and from, statements associated with code paragraphs etc.)

PCA Calc with the add-on prototype developed by Hydro-Québec (Montreal) works on the same principle as adopted by Before You Leap: automatic data input from CASE tools to a manual FP sizing tool.

2 - FP Automatic Counting Tools Features

A summary of the information available on the primary features of the automatic counting tools is presented in the next exhibit. For the detailed characteristics of these tools, please refer to the corresponding product pages in the Product Information appendices.

Automatic FP Counting Tools Features

Features	Autopoint	Before You Leap v1.52	Composer FP Report	FP Analyst	LDA LINC Dev. Assistant	Revolve v3.1	PCA Calc Add-on v4	VIA Recap v2.1
				FP Tools				
1. General Characteristics								
Tool vendor	Integrated Software Specialists	Strategic Systems Technology Ltd.	Texas Instruments	Cayenne Software Inc.	Unisys	Micro Focus Ltd.	System House SHL Québec (Prototype)	VIASOFT Inc.
Local	Schaumburg IL	London	Plano TX	Burlington, MA	Rio Brazil	Newbury Berkshire	Montréal Québec	Phoenix, AZ
Country	USA	England	USA	USA	USA	England	Canada	USA
Phone	(708) 240-5070	44 (0) 71 538-8228	(214) 575-3689	(617) 273-9003 Ext 490	(55) (21) 217-1133 Ext 1229	+1635 32646	(514) 866-2891	(602) 952-0060
Tool developed by	Same	Same	Same	Same	Same	Same	Grenier St-Pierre GSA Montréal, PQ	Same
First installed	94	91	88				94	92
Number of installations	4	100+						160
FP Tool basic category	Automatic FP counting tool Type 3	Automatic FP counting tool Type 3	Automatic FP counting tool Type 3	Automatic FP counting tool Type 3	Automatic FP counting tool Type 3	Automatic FP counting tool Type 3	Automatic FP counting tool Type 3	Automatic FP counting tool Type 3
Other FP tool categories	None	imation - Prediction Type 5	oduct is part of an I-CASE tool		oduct is part of an I-CASE tool	Software Analysis Tool	None	SW Metrics Collection Type 7
Stand-alone tool	●	●			●	●		●
Integrated module	●		●	●	●	●	●	●
Integratable to	X-Analysis Survival2000 Productivity Manager PMG		Composer model-based development tools	Bachman's Re-engineering environment	LINC Environment	Micro Focus COBOL Workbench	ASYST's *Developpeur* CASE tool	VIASOFT's Existing System Workbench
2. Technical Characteristics								
Targeted platforms								
Micro	● *Client*	●	● *Client*	● *Client*	● *Client*	●	●	● *Client*
Work-station		●			●			
Mid-range	●							
Mainframe			●	●	●			●
Minimum system requirements:								
Host (when client-server architecture)	AS/400 S 36 S38		IBM compatible	_	1) Unisys SMP and U series Sequent SUN Sparc RS6000 2) Unisys A series			IBM compatible 1000 TRKS 3380 DASD
RAM (Mo)								4
Hard disk (Mo)	2x source code							
OS compatibility	OS/400 v2.2		IBM MVS/XA MVS/ESA		UNIX			IBM MVS/XA MVS/ESA
Client								
Features	**Autopoint**	**Before You Leap v1.52**	**Composer FP Report**	**FP Analyst**	**LDA LINC Dev. Assistant**	**Revolve v3.1**	**PCA Calc Add-on v4**	**VIA Recap v2.1**
CPU	386+	386+	386+		386+	386+	386+	

Features	Autopoint	Before You Leap v1.52	Composer FP Report	FP Analyst	LDA LINC Dev. Assistant	Revolve v3.1	PCA Calc Add-on v4	VIA Recap v2.1
RAM (Mo)		4	-		-	8	4	
Hard disk (minimal available space Mo)		4	-		-	20	4	
OS compatibility	DOS	DOS OS/2	DOS	DOS	DOS	DOS 5.0+ OS/2 2.0+	DOS 5.0+	DOS
Interface	Win Presenter	Win OS/2 Win	Text	Win	Win	Win	Win	Win Via Recap2
LAN capability	Not Applicable	Win NT Novell OS/2 Lan	Not Applicable		●		Not Applicable	Not Applicable
Tool source code	Visual C++ RPG	C					Lotus 123 Turbo C	Pascal
Storage type	Central Repository (Corporate) Any level	Local Database	Central Repository (Corporate)				Local Database	Central Repository (Corporate)
Data access support	XAnalysis DataBoarux(host) Access (client)	Requires 3rd part repository	Composer Central Repository				Lotus 123	VIASOFT's Application Knowledge Repository
Storage environment			IMS DB2				Flat file	VSAM Sequential IMS DB2 IDMS
Stored information	1) FP count at the end of project 2) FPA definitions, rules, examples 3) Historical FP counts for trending FP count each time application is changed	1) FP count at diff. project phases 2) FP count at the end of project 3) FPA definitions, rules, examples	None: FP counts are based on the business application model stored in the repository					1) FP count at diff. project phases 2) FP count at the end of project
Display of results:								
On-line display (screen)	●		●		●	●	●	●
Hard copy report	●		●		●	●	●	●
Summary FP Report			●		●	●	●	●
Detailed FP Report	●		●		●	●	●	●
Report preview							●	
3. FPA Process								
FP Analysis compliance:	IFPUG CPM v?	Mark II FPA	'It was developed to support the intent of CPM 4.0'			IFPUG CPM v?		IFPUG CPM v4.0
FP targeted object:								
Project under development	●	●	●					
Application	●	●	●			●		●
Enhancement	●	●						●
Touched / Modified FP	● Maintenance							
4. Other Features								
Automatic rebuild of FP count if application changes	●							
Multi-level view: Program - Application -Entr	●							●●●
FP size tracking	●							●

Update security	●							
Application languages handled:								
OS/COBOL VS/COBOL 2 COBOL/370	●●●							●●●
RPG	●							
Generation of other metrics than FP	No	No	No	No	No	Halstead, McCabe, McClure	No	Halstead, McCabe, McClure Control Flow Knots
Statistics about the applicat. portfolio		No				●	No	●
Export data to	1) External databases 2) Presenta- tion package 3) Software metrics tool 4) PMG's Productivity Manager	1) Project management tool 2) Presenta- tion package 3) Software metrics tool 4) Full Win DDE export/import	) Spreadsheet Lotus / Excel)					1) External databases) Presenta- tion package 3) Project management tool
Import data from	**COBOL Code** resulting from application generators: COBOL, and RPG; File definitions screen defini- tions, OCL, etc (legacy applications)	**Via add-on** (£ 795) ntity-Relationship Diagrams DFD generated by a CASE tool **System Architect, Excelerator, IEW**	**COMPOSER' Dialog Flow/ Process Action Diagrams** stored in central repository	**Bachman Models** stored in the central repository	**LINC's Graphical business models** stored in the central repository	**COBOL code** on many different environments including those that incorporate MVS, JCL, BMS, IMS/ESA, DB2 ...	**DFD** from **Designer** CASE tool	**COBOL Code** resulting from application generators: COBOL68, 74, I, /370, ICL, Load modules, Tx definitions
Input from DFD, E-R Diagrams	No	●	●	●	●	No	●	No

3 - Majors Steps in the Automatic FP Counting

All information on the automatic FP counting steps was provided directly by the vendors in the form of specific answers to a questionnaire on this issue. The only exception is Cayenne FP Analyst, information about wich was derived from product documentation. To date, no information has been obtained on the automated FP counting steps for Unisys LDA and Micro Focus Revolve.

FP Tool	Version	Automatic FP Counting Steps*																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
AutoPoint	1.0	M	M	A	A	A	A	A	A	A	A	A	A	A	A		M/A	A	A
Before You Leap with add-on	1.52	M	M	M	M	A	A	A	A	M	M	A	M	A	A	M	M	A	A
Cayenne / FP Analyst			M	A	A	A†	A†	A†	A†	A	A†	A	A	A	A	A	M	A	A
Composer-FP Rep	3.0	A	A			A	A	A	A			A	A	A	A				
PCA-Calc add-on	4.0	M	A	A	A	A	A	A	A	A	A	A	A	A	A	A	M	A	A
VIA/RECAP	2.1	E	E	A	A	A	A	A	A†	A	A†	A	A	A	A	A	M	A	A

[M] Manual (user intervention)   [A] Automatic (system stocked FPA rules)
[E] Activity supported by an expert system   [V] Default value
[D] Default directory   [†] Identified process can be reclassified by the user if necessary

Automatic FP Counting Steps *

[1] Identify the target applications;
[2] Identify the application boundaries;
[3] Identify the file status: added, modified, not changed, deleted, internal, external;
[4] Identify the process status: added, modified, not changed, deleted, internal, external;
[5] Identify which processes are required for FP counting;
[6] Identify which files are required for FP counting;
[7] Identify the required file types: EIF, ILF, ignored file;
[8] Identify the required process types: EI, EO, EQ, ignored process;
[9] Decide which relevant files are unique;
[10] Decide which relevant processes are unique;
[11] Compute the attribute file types and data element types for each unique relevant process;
[12] Compute the attribute record types and data element types for each unique relevant file;
[13] Compute the unadjusted FPs for each unique relevant process;
[14] Compute the unadjusted FPs for each unique relevant file;
[15] Compute unadjusted FP count for the parts added, modified, deleted, used for conversion;
[16] Decide on the values of the 14 general system characteristics (GSC);
[17] Compute the value application factor (VAF);
[18] Compute the adjusted FP count.

*: Based on the Technical Report **- The Methodology of Function Point Analysis -** by K. Paton and A. Abran (94)

Other FP Tools Recently Identified

- **BIS / Estimator**

- **Estimator's Workbench**

- **IEW Information Engineering Workbench** - Knowledgeware

- **Oracle I-CASE (FP Report module) -** Oracle Corporation

- **PMS/Bridge**

- **Simpact Estimator**

- **SoftCost-R**

- **Venturi -** Int. Software Benchmarking Standard Group - ISBSG (Australia)

We are currently in the data-gathering stage for these FP tools. Their features will be included in the next revision of the FP tool product infomation report

Olavo Mendes
December, '96

Appendices
FP Tool Product Information

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
		●			●		

Product Identification:

Product Name: **AEM - Adaptive Estimating Model**
Current Version: v ...

Vendor: **Koch Productivity Consulting - KPC**
                        814 Pecan Court
                        Bel Air, MD   21014   Tel: (1) (410) 838-3310
                        USA   Fax: (1) (410) 265-0889

Developed by: **Koch Productivity Consulting   (91)**
                        10 Parsonage Road, Suite 212
                        Edison, NJ 08837
                        USA

Goal: **ESTIMATION**

Main Category: **Project Development Estimation Tool   [EST]**
                        Analysis: Productivity [PRO] - Quality [QUA]
                        Client Satisfaction [SATIS] - Risk [RISK]
Secondary Class: **Evaluation: Benchmarking [BENCH]**

Technical Characteristics:

Host Environment:
       System Classes: **Micro PC Compatible 386+**
Operating Environment: DOS 3.3+
Interface: Windows 3.1

Tool Features:

Primary Features:
- Management-oriented tool for application system project development estimation
- Risk analysis
- Quality and customer satisfaction tracking
- Benchmarking: normalized cross-industry comparative analyses
- Feedback on performance - productivity - quality - customer satisfaction - risk
- Employs analytical processes throughout and is adaptable to each user's environment

Accessory Features:
- Graphical management reports
- Report results by project - year - yearly trend - client organization

Pricing Structure:

Price Range: [USD   ... - 18,000]   List price for a site license

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
	●						

Product Identification:

Product Name: **ASSET - R**
Current Version: v ...

Vendor: **Resource Calculations**

Developed by: **Resource Calculations**

Goal: **SIZING**

Main Category: **Project Size Estimation Tool   [SIZE]**

Secondary Class: **None**

Technical Characteristics:

Host Environment:
Operating Environment: DOS & VMS
Interface:
Network:

Tool Features:

Primary Features:
  - ♦ Sizing package based on function points
  - ♦ Extended to real-time systems

Accessory Features:
  - ♦
  - ♦

Pricing Structure:

Price Range: **[USD   .... - ....]**   Call for price list

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
	●						

Product Identification:

Product Name: **Auto Point**
Current Version: **v1**

Vendor: **Integrated Software Specialists, Inc.**
                      1701 East Woodfield Road, Suite 911
                      Schaumburg, IL   60173   Tel: (708) 240-5070
                      USA   Fax: (708) 240-5073
Developed by: **Integrated Software Specialists, Inc.**

Goal: **SIZING**

Main Category: **Automatic FP Counting and Data Collection   [AUT]**
Secondary Class.:   **None**

Technical Characteristics:

Host Environment:
      Targeted Platforms: Client Stations: 386+
                                          Server   : IBM AS/400 - S/36 - S/38
Operating Environment:
      Client Stations: MS/DOS
      Server   :   OS/400 v2.3
Interface:
      Client Stations: Windows 3.1
      Server   :   Character-based

Tool Features:

Primary Features:
   ♦ Automatic FP counts for new projects and applications / legacy code
   ♦ Automatic FP data collection

Accessory Features:
   ♦ Automatic detection of application changes   (project enhancements / changes): FP recalculation
   ♦ Product is bound tightly to the AS/400 architecture   (taking advantage of the AS/400 integrated data dictionary)

Pricing Structure:

Price Range: **[USD   46,280 One AS/400 & One PC -   USD 668 / For each additional Client Station]**

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
	●						

Product Identification:

Product Name: **Bachman/Cayenne FP Analyst**
Current Version:

Vendor: **Cayenne Software, Inc.**
                       8 New England Executive Park
                       Burlington,   MA   01803   Tel: (1)(617) 273-9003 Ext. 490
                       USA   Fax: (1)(617) 229-9904

Developed by: formerly **Bachman Information Systems, Inc.**

Goal: **SIZING**

Main Category: **Automatic FP Counting and Data Collection   [AUT]**
Secondary Class.: **None**

Technical Characteristics:

Host Environment:
    System Classes: **Micro PC Compatible**
    Targeted Platforms: **386+**
Operating Environment:

                  MS-DOS
Interface: Windows 3.1 +

Tool Features:

Primary Features:
- Automatic FP counts for new projects and applications
- Detailed mode: calculates FPs automatically from Bachman/Cayenne data flow diagrams built into the Cayenne/Analyst (takes as input an export file from GroundWorks (.var))
- Preliminary mode: allows preliminary estimates early in the development life cycle where requirements are already completed but a fully attributed data flow isn't yet available
- Allows addition, deletion or editing of functions from the initial interpretations to obtain a more correct model from which to calculate FPs
- Identifies and weights data and transactional functions based on analysis of data elements and entities referenced by data flows
- Allows adjustment of calculations based on the 14 GSC complexity factors

Accessory Features:
- Provides consistent FP analysis based on IFPUG standards
- Produces standard summary and detail reports
- Exports results to productivity or estimation tools

Pricing Structure:

Price Range: **[USD   .... - ....]**   Call for price list

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
	●	●					

Product Identification:

Product Name: **Before You Leap**
Current Version: **v 1.52**

Vendor: **Strategic Systems Technology Ltd**
14 Landons Close
Jamestown Harbour
Prestons Road
London E14 9QQ   Tel: (44) (0) (171) 538-8228
England   Fax: (44) (0) (171) 515-3887
Developed by: **Strategic Systems Technology Ltd**

Goal: **SIZING - ESTIMATION**
Main Category: **Sizing High-level   [SIZE]**
Automatic Counting   [AUT] (with an add-on)
Estimation of Effort - Duration - Staff - Cost   [EST]
Risk Assessment   [RISK] - Productivity Analysis [PROD]
Secondary Class.:   **None**

Technical Characteristics:

Host Environment:
      System Classes: **Micro PC Compatible   386+**
Operating Environment: MS-DOS   3.3+
Interface: Windows 3.1 & 95

Tool Features:

Primary Features:
- Parametric software estimating tool for development and maintenance
- Size estimation methods: COCOMO (SLOC)   - IFPUG /FPA (FP) -   EFPUG/Symons (Mark II FPA)
- Estimates: effort - schedule - staff size - cost - productivity
- What-If analysis: development of alternate scenarios for design trade-offs and scope changes
- schedule & staff planning
- Risk Analysis
- COCOMO cost drivers: <u>development</u> and <u>maintenance</u> models
- Automatic estimate recalibration based on project actuals
- Automatic FP counting using add-on for data importation from CASE tools (£ 795):
    IEW - System Architect - Excellerator - SSADM

Accessory Features:
- FP - SLOC conversion: backfiring
- Exports data to project management tools
- Windows DDE links to other applications

Pricing Structure:

Price Range: **[£ 795   - £ 1,395]**   List price for a single license copy and site license

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
		●					

Product Identification:

Product Name: **CA-Estimacs**
Current Version: **v7.1**   (released in February, '95)

Vendor: **Computer Associates International, Inc.**
                    Fort Lee Executive Park
                    Two Executive Drive   Tel: (1) (201) 585-6734
                    Fort Lee, NJ   07024   USA
Developed by: **Howard Rubin & Associates**
                    5 Winter Bottom Lane
                    Pound Ridge, NY   10576   USA

Goal: **ESTIMATION**
Main Category: **Estimation of Effort - Duration - Staff - Cost   [EST]**
                    Analysis: Risk [RISK] - What-If   [WHA] - Financial [FIN]
                    Corporate Value [VAL]
Secondary Class.:   **Evaluation**: **Baselining [BASE]**

Technical Characteristics:

Host Environment:
      System Classes: **Micro PC Compatible   286+**
Operating Environment: MS-DOS   3.3+
Interface: Character-based

Tool Features:

Primary Features:
- ♦ **Estimates**: **Effort - Duration - Cost - Staff**
- ♦ Estimation of total effort: based on ansoftwareers of 25 high-level questions: client's organization, project's general size, sophistication and complexity (customizable)
- ♦ Duration - staffing requirements - cost estimations are derived from total effort estimation
- ♦ What-If analysis: development of alternate scenarios for design trade-offs and scope changes
- ♦ Portfolio analysis: cumulative staffing requirements, cost, risks, for a chosen collection of projects
- ♦ Risk analysis -   corporate value analysis
- ♦ FP Calculator: FP sizes can be derived for productivity measurement and tracking
- ♦ **Financial Analysis**: month-by-month cash-flow, break-even point, rate of return, net present value

Accessory Features:
- ♦ Module of CA-Project Navigation suite: CA-Planmacs, CA-Estimacs, CA-Metrics, CA-SuperProject
- ♦ Compatible with a variety of lifecycle methodologies   -   Lifecycles: up to 32 phases
- ♦ Templates: large project - small project - maintenance project
- ♦ Statistical database: 18,000+ completed projects
- ♦ Interfaces with CA-Planmacs for project-integrated estimating and planning - ASCII format transfer

Pricing Structure:

Price Range: **[USD 24,260   -   70,040]**   List price for a single license copy and site license

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
	●					●	

Product Identification:

Product Name: **CA-FPXpert**
Current Version: **v3.1**   (released in January, '95)

Vendor: **Computer Associates International, Inc.**
                 Fort Lee Executive Park
                 Two Executive Drive   Tel: (1) (201) 585-6734
                 Fort Lee, NJ   07024   USA
Developed by: **Howard Rubin & Associates**
                 5 WinterBottom Lane
                 Pound Ridge, NY   10576   USA

Goal: **SIZING**
Main Category: **Expert System that Assists with FP Counting   [EXP]**
Secondary Class.:   **Guidance [GUIDE]**

Technical Characteristics:

Host Environment:
      System Classes: **Micro PC Compatible   286+**
Operating Environment: MS-DOS   3.3+
Interface: Character-based
Network Capability: Novell Netware

Tool Features:

Primary Features:
- ♦ Knowledge-based FP counting, analysis, tracking and measurement tool
- ♦ On-line assistant: provides a tutorial for the FPA method; guides the user through the key steps in the counting process
- ♦ Repository for FP counts created at various points in the development lifecycle
- ♦ Tracks system changes / enhancements through the FP baseline variation
- ♦ Analyzes and Reports FP Trends for a single project or portfolio

Accessory Features:
- ♦ Version Control: maintains historical versions of a system's FP counts
- ♦ Converters: FP to SLOC (and vice-versa), IFPUF FP to Mark II FP (and vice-versa)
- ♦ Module of CA-Project Navigation suite: CA-Planmacs, CA-Estimacs, CA-Metrics, CA-SuperProject
- ♦ Exports FP data for CA-Metrics to integrate with other key dimensions: cost, staffing levels, timeliness of delivery, functional quality, technical quality, customer satisfaction, etc.
- ♦ Entity-Relationship and Data Flow diagrams can be used as input to the counting process
- ♦ Exports FP data in ASCII Format

Pricing Structure:

Price Range: **[USD 9,870   -   54,600]**   List price for a single license copy and site license

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
				●	●		

Product Identification:

Product Name: **CA-Metrics**
Current Version: **v3.0**   (released in January, '95)

Vendor: **Computer Associates International, Inc.**
Fort Lee Executive Park
Two Executive Drive   Tel: (1) (201) 585-6734
Fort Lee, NJ   07024   USA

Developed by: **Howard Rubin & Associates**
5 WinterBottom Lane
Pound Ridge, NY 10576 USA

Goal: **SOFTWARE METRICS - EVALUATION**
Main Category: **Automated Software Metric Collection, Analysis & Reporting [SWM]**
     Tracking [MTRACK] & Trending of SW Metrics Over Time [MTREND]
     Analysis: Quality - Defect - Impact - Corporate Value - Productivity

     Evaluation: Baselining [BASE] - Benchmarking [BENCH]
Secondary Class.:   **None**

Technical Characteristics:

Host Environment: **Micro PC Compatible 386+**
Operating Environment: MS-DOS 3.3+
Interface: Character-based

Tool Features:

Primary Features:
- Comprehensive metrics repository: is demographics - quality - productivity measures - work profile measures - delivery measures
- Project assessment: on-line questionnaire to identify application's technical and functional quality tracking & trending: track changes over time (portfolio versions: time and date stamps)
- Quality assessment: project's technical / functional quality and user satisfaction
- Defect tracking & analysis: tracking and analyzing problems and defects using the total quality management software (TQM/S) package included
- Attribute / impact analysis: corporate value analysis
- Project baselining: quantitative & qualitative project historical data
- Project benchmarking: compares your application to your portfolio historical data or baseline results of leading is organizations around the world (industry benchmark data)

Accessory Features:
- Module of CA-Project Navigation suite: CA-Planmacs, CA-Estimacs, CA-Metrics, CA-SuperProject
- Aggregates data over different levels: application - project - business function - organizational area
- Import - export capabilities: ASCII - CSV - SDF formats

Pricing Structure:

Price Range: [USD 12,180 - 70,040]   List price for a single license copy and site license

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
○		●		●	●	◉	

Product Identification:

Product Name: **CheckPoint   (also marketed as CheckMark)**
Current Version: **v2.3**

Vendor: **SPR - Software Productivity Research**
                    One New England Executive Park   Tel: (617) 273-0140 Ext. 110
                    Burlington,   MA   01803-5005   USA   Fax: (617) 273-5176
Developed by: **SPR - Software Productivity Research (89)**

Goal: **ESTIMATION - EVALUATION**
Main Category: **Estimation [EST], [ANA], [RISK], [QUA], [VAL], [PROD], [DEF]**
                    Tracking [TRACK], Trending [TREND]
                    Assessment [ASSESS], Baselining [BASE], Benchmarking [BENCH]
Secondary Class.:   **[SWM]**

Technical Characteristics:

Host Environment:
    System Classes: **Micro PC Compatible**   **Work Station**
    Targeted Platforms: 386+   HP 7xx 8xx Sun SPARC Motorola MPC
Operating Environment: MS-DOS 3.3+   Unix: HP UX 9.01 SunOS 4.13 SysV R4
Interface: Windows 3.1   Xwindows (X11 r5)   Motif 1.1 / 1.2

Tool Features:

Primary Features:

♦ Estimation tool: software development, conversion, as well as maintenance & enhancements for 20 years. User enters project's profile (nature, class, type, size)
♦ Estimation: project's phases - effort - schedule - staff - resources - cost - deliverables - quality - productivity - defects & removal cost/time by knowledge-based prediction
♦ Analysis: risk /value - defect & removal - quality - productivity - what-if - technology impact
♦ Assessment: process - environment - technology - personnel - strengths & weaknesses (comparison of actual & projected - industry averages or best in class, internal standards)
♦ Assessment: comparison of software strengths and weaknesses against industry standards
♦ Capture & Tracking: size (IFPUG FP, Feature Points, SCLOC) - effort - duration - cost - staff - defects
♦ Analysis: Simulation of complex what-if scenarios (technology impact - risk/value - defect - quality)
♦ Measurement: project software metrics data storage and tracking
♦ Baselining: The aggregated measures from a representative number of projects can be used as a baseline
♦ Benchmarking: Comparison of actual and projected project performance with internal/external projects; Client historical data & Industrial data (over 6,000 software industrial projects)

Accessory Features:

♦ Supports MIS - systems software - government / defense development process
♦ Information level of detail: portfolio - project - phase - activity - task
♦ Import - export facilities; exports to spreadsheets & database systems (exports in MS Project MPX format)
♦ Templates: Portfolio - Best in Class (for comparisons)   Languages Versions: English and French
SPQR / 20 - Software Productivity - Quality - Reliability: Simpler predecessor model (85)

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
							●

Product Identification:

Product Name: **CIM - Aid**
Current Version: **v 2.0**

Vendor: **CIM**
1801 McGill College 8th floor
Montréal,   Québec   Tel: (514)   398-1234
Canada   Fax: (514)   398-1244

Developed by: **University of Magdeburg - CIM - CRIM**

Goal: **DOCUMENTATION**

Main Category: **FPA Documentation   [DOC]**
Secondary Class.:   **None**

Technical Characteristics:

Host Environment:
    System Classes: **Micro PC Compatible**
    Targeted Platforms: **386+**

Operating Environment: MS-DOS 3.3+

Interface: Windows 3.1

Tool Features:

Primary Features:
- ♦ Structured hypertext version of IFPUG - CPM v4.0
- ♦ Look-up & reference tool: IFPUG - CMP v4.0

Accessory Features:
- ♦ Definitions - procedures - rules - hints
- ♦ Search capability: topic - subtopic - text string - individual word searches
- ♦ Printing capability: topics - subtopics - entire document

Pricing Structure:

Price Range: **[USD   .... - ....]** Call for price list

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
	●						

Product Identification:

Product Name: **Composer FP Calculation Report**
Current Version: **v 3.0**   (released in November, '95)

Vendor: **Texas Instruments**
6620 Chase Oaks Boulevard   MS 8504
Plano, TX   75023   Tel: (214) 575-3689
USA   Fax: (214) 575-4268

Developed by: **Texas Instruments**

Goal: **SIZING**

Main Category: **Automatic FP Counting [AUT]**
Secondary Class.: **None**

Technical Characteristics:

Host Environment:
       System Class: **Mainframe**
       Targeted Platforms: **IBM**
Operating Environment: IBM - MVS

Interface: Character-based

Tool Features:

Primary Features:
 ♦ Automatic FP calculation and data collection
 ♦ FP output data is donein the form of a report: Composer's FP calculation report
 ♦ FP counts are based on the <u>business application model</u> (Entity-Relationship diagram and Dialog Flow / Process Action diagram) stored in the Composer repository

Accessory Features:
 ♦ Product was developed to support the intent of IFPUG r4.0
 ♦ Since the report is completely automated, there is no opportunity for human interaction to specify, for example, which components should be counted
 ♦ Accuracy is related directly to the degree of methodology usage. Where the TI methodology is used in its purest form, the report will produce a count very close to the IFPUG 4.0 manual count
 ♦ Product is part of an integrated suite of model-based development tools (not sold separately)
 ♦ FP data can be downloaded from the mainframe to any spreadsheet (.CSV format)

Pricing Structure:

Price Range: **[USD .... - ....]**   Call for price list

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
	●	●					

Product Identification:

Product Name: **COSTAR**
Current Version: v ...

Vendor: **SofStar Systems**
28 Ponemah Road
Amherst, NH 03031   Tel: (603) 672-0987
USA

Developed by: **Sofstar Systems   (86)**
28 Ponemah Road
Amherst, NH 03031
USA

Goal: **SIZING - ESTIMATION**
Main Category: **Sizing (SLOC - FP)   [SIZE]**
 Estimation   [EST]
 Analysis: Trade-off & What-If   [ANA]
Secondary Class: **None**

Technical Characteristics:

Host Environment:
    System Classes: **Micro PC Compatible 386+**   **DEC - VAX**
Operating Environment: DOS 3.3+   VMS
Interface: Windows 3.1
Network:

Tool Features:

Primary Features:
- ♦ Sizing: SLOC (COCOMO method) & FP
- ♦ Estimation: schedule (for each project phase) - staff size   (using COCOMO method)
- ♦ Interactive software estimation tool: allows preliminary estimation at project's initial definition and then produces a more and more accurate forecasts as the project's definition is refined
- ♦ Also supports ADA - COCOMO for ADA projects
- ♦ Calibration of estimates from actual project data
- ♦ Trade-off sensitivity analysis
- ♦ What-If analysis
- ♦ Compares alternative project plans side by side

Accessory Features:
- ♦ Graphical management reports

Pricing Structure:

Price Range: **[USD   800 (PC), 1,500 (VMS) - ....]** List price for a single copy.   Multi copy prices available

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
	●	●					

Product Identification:

Product Name: **Enterprise Software Planner**
Current Version: v ...

Vendor: **SPR - Software Productivity Research**
One New England Executive Park   Tel: (617) 273-0140 Ext. 110
Burlington, MA   01803-5005   USA   Fax: (617) 273-5176

Developed by: **SPR - Software Productivity Research**

Goal: **SIZING - ESTIMATION**

Main Category: **Sizing   [SIZE]**
Estimation [EST]
Secondary Class: **None**

Technical Characteristics:

Host Environment:
System Classes: **Micro PC Compatible   386+**
Operating Environment: DOS 3.3+
Interface: Windows 3.1
Network:

Tool Features:

Primary Features:
♦ Prototype used in consulting studies and seminars
♦ Allows users to specify improvement targets in terms of either SEI - CMM levels or SPR excellence levels
♦ The tool will estimate the costs and schedules for achieving the targets
♦ Also estimates the size of the entire portfolio owned by the company in terms of FP or LOC
♦ This prediction portfolio is used to calculate the return on investment (ROI) of the overall process improvement strategy

Accessory Features:

Pricing Structure:

Price Range: **[USD   .... - ....]**   Call for price list

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
	●	●					

Product Identification:

Product Name: ESTEEM
Current Version: v ...

Vendor: **CAP Gemini America**
                         1114 Ave. of the Americas, 29th floor
                         New York, NY 10036
                         USA

Developed by: **CAP Gemini America**

Goal: **SIZING - ESTIMATION**

Main Category: **Sizing [SIZE]**
                         Estimating [EST]
Secondary Class.:   **Quality Analysis   [QUA]**

Technical Characteristics:

Host Environment:
        System Classes: **Micro PC Compatible   386+**
Operating Environment: DOS 3.3+   OS/2
Interface: Windows 3.1   OS/2 Windows

Tool Features:

Primary Features:
   ♦   FP Sizing
   ♦   Estimation
   ♦   Quality Assessment

Accessory Features:
   ♦
   ♦

Pricing Structure:

Price Range: **[USD   .... - ....]**   Call for price list

	Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
	●	●	●	●				

Product Identification:

Product Name: **Firstcase**
Current Version: v 3.5

Vendor: **AGS Management Systems, Inc.**
                        1012 W. Ninth Ave.
                        King of Prussia,   PA   19406   Tel: (610) 265-1550   1 800 220-2471
                        USA   Fax: (610) 265-1230

Developed by: **AGS Management Systems, Inc.**

Goal: **PLANNING - SIZING - ESTIMATION - MANAGEMENT**
Main Category: **Management: Scheduling [SCHED] & Control [CRTL]**
Secondary Class: **Planning - Sizing [SIZ] - Process and Project Estimation [EST]**

Technical Characteristics:

Host Environment:
    System Classes: **Micro PC Compatible   486+**
Operating Environment: DOS 3.3+
Interface: Windows 3.1 & 95 & NT
Software Architecture: Client - Server

Tool Features:

Primary Features:
- Enterprise-wide, multi-user, multi-project management tool with project estimating, scheduling & control capabilities
- Enterprise Architecture Planning: for identifying and describing the resources needed to support the enterprise
- Information engineering: for project's conceptual data modeling
- Structured approach: for application development process
- Includes size estimation module: FP
- Project scheduling: task - duration - dependencies - resources (staff, material, equipment, cost)
- Scheduling: variable resource availability, variable task loading, variable task duration
- Resource analysis: resource calendar - variable resource availability
- Logical structures: work breakdown - organizational breakdown
- Cost analysis: cost computation - time capture and accounting
- Performance analysis / cost reporting: earned value on WBS

Accessory Features:
- Flexibility to use its own development methodology (customizable) or any other
- On line Tutorial
- Integration with Microsoft Project

Pricing Structure:

Price Range: **[USD   37,000]**

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
●	●	●					

Product Identification:

Product Name: **ForeSight**
Current Version: **ß test**   (relased in October, '96)

Vendor: **Lockheed Martin - PRICE Systems**
                        700 East Gate Drive, Suite 200
                        Mt. Laurel, NJ   08054   Tel: (609) 866-6591
                        USA   Fax: (609) 866-6789

Developed by: **Lockheed Martin - PRICE Systems**

Goal: **PLANNING - SIZING - ESTIMATION**

Main Category: **Planning [PLAN] - Sizing   [SIZE] - Estimation   [EST]**
                        Analysis: Tradeoff [TRADE] - What-If   [WHAT]
Secondary Class: **None**

Technical Characteristics:

Host Environment:
        System Classes: **Micro PC Compatible   386+**
Operating Environment: DOS
Interface: Windows 3.1

Tool Features:

Primary Features:
- ♦ Project profiling: Series of questions about the project (design paradigm, application type, CMM level, tools utilized, familiarity of the project team with the tools, methodologies for metrics collection, distribution etc.)
- ♦ Project planning: structuring from the system level to any number of subsystems
- ♦ Project work breakdown structure (WBS)
- ♦ Sizing: High-level (SLOC - FP - predictive object points)
- ♦ Estimation: effort - schedule - staff size - cost
- ♦ Risk assessment
- ♦ Trade-off analysis: evaluation of project's inter-dependencies and constraints (schedule, cost, quality, available staffing)
- ♦ What-If analysis

Accessory Features:
- ♦ Direct interface to project management tools (MS-Project)
- ♦ Generation of reports, graphics and MS-Project file from project's WBS plan

Pricing Structure:

Price Range: **[USD   .... - ....]**   Call for price list

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
	●						

Product Identification:

Product Name: **FP Estimator**
Current Version: **v 1.0**

Vendor: **CIM - Centre d'Interêt sur les Metriques de Montréal**
Montréal, PQ   Tel: (1) (514) 987-9800
Canada   Fax: (1) (514) 987-8477

Developed by: **CIM - SELAM**
7415, rue Beaubien est
Anjou,   Québec
H1M 3R5   Tel: (1) (514) 355-2874
Canada   Fax: (514) 355-2600

Goal: **SIZING**

Main Category: **FP Data Collection (Repository) and Calculation   [DCC]**
Secondary Class.:   **None**

Technical Characteristics:

Host Environment:
    System Classes: **Micro PC Compatible**
    Targeted Platforms: **386+**
Operating Environment:
        MS-DOS
Interface: Windows 3.1 - Windows 95

Tool Features:

Primary Features:
    ♦ FP data collection (repository) and calculation

Accessory Features:
    ♦ Repository: MS Access database
    ♦ Help for FP counting method: not available
    ♦ Free-form notes: application information
    ♦ Data export

Pricing Structure:

Price Range: **[USD   .... - ....]**   Call for price list

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
●	●	●	○				

Product Identification:

Product Name: **FP FAST**
Current Version: **v3.1**

Vendor: **Olivetti Group Technologgy   S. p. A.**
Via E. Cialdini, 37
20161 Milan   Tel: (39) (2) 66 20 30 02
Italy   Fax: (39) (2) 66 22 12 78

Developed by: **SIP - Società Italiana per l'Exercizio delle Telecomunicazioni S. p.a.**
SIP Via Flaminia, 189
00196   Rome   Italy

Goal: **PLANNING - SIZING - ESTIMATION - MANAGEMENT**
Main Category: **Sizing [SIZE]**
Estimating [EST],   Risk   [RISK]
Secondary Class.: **Management: Scheduling   [SCHED]**

Technical Characteristics:

Host Environment:
    System Classes: **Micro PC Compatible**
    Targeted Platforms: **386**+
Operating Environment: MS-DOS
Interface: Windows 3.1

Tool Features:

Primary Features:
- Project Planning
- Estimation: Project <u>size</u> in FP - total <u>effort</u> - <u>cost</u>
- Early sizing: Applicable very early in the software lifecycle (feasibility study)
- Scheduling: team size required & duration for each phase
- Costing: quantify <u>effort</u> using internal productivity standard equations
- Used for both new development and enhancement projects
- Evaluates the margin of risk and the associated probability

Accessory Features:
- FP-FAST can be used for both new development and enhancement maintenance projects
- Project FP Sizing: FP and SLOC (COBOL equivalent)
- Productivity model: standard & customized (productivity parameters)
- FP counts: new development and maintenance
- Contextual help on-line

Pricing Structure:

Price Range: [**USD**   ....   -   ....   ]   Call   for   price   list

Product Information

Reviewed: December, 14 1996

Product Identification:

Product Name: FP Manager
Current Version: **v1.0.3**   (released in January, '95)

Vendor: **ABT Corporation**
361 Broadway   Tel: (212) 219-8945
New York, NY 10013   USA   Fax: (212) 334-9523

Developed by: **ABT Corporation**
361 Broadway
New York, NY 10013 USA

Goal: **SIZING**

Main Category: **FP Data Collection (Repository) and Calculation [DCC]**
Secondary Class.:   None

Technical Characteristics:

Host Environment:
      System Classes: **Micro PC Compatible**
      Targeted Platforms: **386+**

Operating Environment: MS-DOS
Interface: Windows 3.1
Network Capability: MS LAN Manager -   Windows NT - Novell Netware

Tool Features:

Primary Features:
   ♦ FP calculation. Data display in a variety of worksheets.   Reporting
   ♦ Access and count a project at various stages during the development process
   ♦ Central repository for FP data
Accessory Features:
   ♦ Count data at project and application level
   ♦ Import data from Metrics Manager
   ♦ Merge and copy data from one database to another, sort data to fit requirements, check integrity of imported data
   ♦ Data support: MS- Access
   ♦ Exchange data with Project Bridge Modeler & Metrics Manager (ABT's Project Management Solution)

Pricing Structure:

Price Range: **[USD   1,500 -   .....]**   List price for a single license copy

Product Information

Product Identification:

Product Name: **FP Mentor**
Current Version: **v1.5**

Vendor: **Angel Group**
Tonja Pfister
6605 Rolling Vista, Suite 101   Tel: (214) 458-7052
Dallas, TX   75248   Fax: (214) 458-7053
USA   http://www.angelgroup.com

Developed by: **Angel Group**

Goal: **TRAINING**
Main Category: **Individual FP Training [TRAIN]**
FP documentation   [DOC]
Secondary Class.: **FP calculation**

Technical Characteristics:

Host Environment:
System Classes: **Micro PC Compatible**
Targeted Platforms: **386+**
Operating Environment:
MS-DOS 3.3+
Interface:
Windows 3.1

Tool Features:

Primary Features:
- Individual FP Training: step-by-step lesson plan
- Automated hypertext version of IFPUG - CPM v4.0: look-up and reference tool
- FP calculations: using <u>forms</u> for all project types and application

Accessory Features:
- Project estimation:
  - Estimating in summary form: to convert a system Size (FP) into an estimate of total effort
  - Assessment of risk & contingency factors for estimating
- Definitions - procedures - rules - hints - diagrams - examples
- Simultaneous viewing: IFPUG's definitions & rules and applications in examples & cases
- Search capability: topic - sub-topic - text string - individual word searches
- Printing capability: topics - subtopics - entire document
- Angel Group case studies: new development - enhancement & maintenance projects

Pricing Structure:

Price Range: **[USD   249 - 1,999]**   List price for a single license copy and 10 users license (special offer)

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
	●			●			

Reviewed: December, 14 1996

Product Identification:

Product Name: **FPSII**   Function Point System II
Current Version: **v 2.11**

Vendor: **MSB2**
                344 West Bonniwell Road
                Mequon,   WI   53097-1712   Tel: (414) 243-9130
                USA   Fax: (414) 243-9130

Developed by: **MSB2 (1991)**

Goal: **SOFTWARE METRICS - SIZING**

Main Category: **Software Measurement Data Repository   [SWM]**
Secondary Class.:   **FP Calculation [SIZE]**

Technical Characteristics:

Host Environment:
      System Classes: **Micro PC Compatible   386+**
Operating Environment: DOS 3.3+
Interface:
Network: **Novell, Peer to Peer NetBIOS Comptatible**

Tool Features:

Primary Features:
- Faciltate FP data entry, calculation and reporting
- Repository for FP data relating to information systems and products
- Intended to assist in metrics programs by fully supporting FPA
- Also acts as FP calculator during the entry process
- Suite of reports to assist in leveraging FP data
- Not intended to be a counting tutorial or assistant, but will follow the natural flow of the counting process

Accessory Features:
- Data import / export capability
- Reporting capabilities with graphics
- On-line reporting viewing
- Virtually unlimited capacity
- Context-sensitive help
- Storage: .dbf format

Pricing Structure:

Price Range: [USD   2,595]

Product Information

	Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
		●						

Product Identification:

Product Name: **FP Tool**
Current Version: **v ...**

Vendor: **Dürr Comsoft**
      Tal 30   D-80331
      Munich   Tel: (49) 89- 22 85 406
      Germany   Fax: (49) 89- 22 85 459

Developed by: **Dürr Comsoft**
      Tal 30   D-80331
      Munich - Germany

Goal: **SIZING**

Main Category: **Sizing   [SIZE]**
Secondary Class.:   **None**

Technical Characteristics:

Host Environment:
      System Classes: **Micro PC Compatible**
      Targeted Platforms: **386+**
Operating Environment: MS-DOS - OS/2 - Unix
Interface: Windows 3.1 - OS/2 Windows

Tool Features:

Primary Features:
   ♦ Estimation: project <u>size</u> in FP
   ♦ FP data repository

Accessory Features:
   ♦ Documentats of project estimations
   ♦ Reuses all previous calculations to correct further estimations
   ♦ Imports / exports results to and from other productivity tools
   ♦ Records all additional expenses and influences

Pricing Structure:

Price Range: **[USD   .... - ....]**   Call for price list

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
●	●					●	●

Product Identification:

Product Name: **FP Workbench**
Current Version: **v2.02F**   (released in October, '95)

Vendor: **SPR - Software Productivity Research**
One New England Executive Park   Tel: (617) 273-0140 Ext. 110
Burlington, MA 01803-5005 USA   Fax: (617) 273-5176

Developed by: **Charismatek Software Metrics**
175 Dorcas Street
South Melbourne, Victoria 3205
Australia

Goal: **SIZING**
Main Category: **FP Data Collection (Repository) and Calculation [DCC]**

Secondary Class.:   **[PLAN], [DOC], [GUIDE]**

Technical Characteristics:

Host Environment:
    System Classes: **Micro PC Compatible**
    Targeted Platforms: **386+**
Operating Environment: MS-DOS 3.1+   OS/2
Interface: Win 3.1 - Win 95 - Win NT - XWindows - OS/2 Windows
Network Capability: MS LAN Manager - Win NT - Novell Netware - OS/2 LAN Server

Tool Features:

Primary Features:
    ♦ Calculation, storing, maintaining & analyzing FP counts
    ♦ Project / application planning: graphical decomposition (WBS)
    ♦ Tracks and highlights changes in software size
Accessory Features:
    ♦ Project attributes: FP count description
    ♦ Context sensitivity: count applies to the system - project - phase
    ♦ Aggregate feature: sums UFP for a number of projects
    ♦ Notes and comments can be attached to any component
    ♦ Labeling feature: functionalities in a project can be tagged
    ♦ Reports: various levels of detail and perspectives
    ♦ Data export: spreadsheet, data-base, graphics package
    ♦ Expert advice and counting rule documentation: IFPUG CPM's counting rules available

Pricing Structure:

Price Range: **[USD 1,495 - 10,000]**   List price for a single license copy and site license

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
●	●	●	●				

Product Identification:

Product Name: **GPM** Genexus Planner & Manager
Current Version: **v1.4** (released in September '94)

Vendor: **Interfase S.A.**
Bulevar España 2094
Montevideo   Tel: (5982) 49 46 00
Uruguay   Fax: (5982) 49 46 00

Developed by: **Interfase S.A.**

Goal: **SIZING - ESTIMATION**
Main Category: **Sizing [SIZE]**
            Estimation [EST]
Secondary Class.: **Planning [PLAN] - Tracking [TRACK]**

Technical Characteristics:

Host Environment:
    System Classes: **Micro PC Compatible**
    Targeted Platforms: **386+**
Operating Environment: MS-DOS
Interface: Character-based
Network Capability: Novell Netware

Tool Features:

Primary Features:
- Planning: Project task planning (WBS)
- Sizing: FP (Analytical method: bottom-up)
- Uses backfiring to obtain SLOC (Genexus' Cobol & FoxPro)
- Estimation: total effort - schedule - team size (high level and detailed) - cost
- Environmental factor modifiers: staff experience - product complexity & delivery schedule
- Project tracking: completed activities - staff hours - effort expended
- Software measurement repository: size (FP) - effort - cost - duration - project attributes (staffing - tools - techniques)
- Version management: historical & alternative estimation versions

Accessory Features:
- Mixed methodology: Function Points (project size estimation) and COCOMO - 5 out 15 cost drivers
- Interfase's empirical productivity model: determine total effort - schedule - staff
- COCOMO's Cost Drivers: estimation of project optimal development time
- Project memo notes ; reports: project - activities - attributes
- Project work plan: high level and detailed

Pricing Structure:

Price Range: **[USD 1,000 - 2,000]** List price for a single license copy and site license (10+ concurrent users)

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
	●	●					

Product Identification:

Product Name: **LATURI**
Current Version: **v 2.0**

Vendor: **Information Technology Development Center (TIEKE)**
Salomonkato 17A, 10 kervos
00100   Helsinki   Tel: (358) (0) 685-1200
Finland   Fax: (358) (0) 685-1616

Developed by: **Information Technology Development Center (1991)**

Goal: **SIZING - ESTIMATION**

Main Category: **Size [SIZE] - Estimation   [EST]**
                       Assessment of Quality [QUA] - Productivity [PRO]   - Risk   [RISK]
Secondary Class: **None**

Technical Characteristics:

Host Environment:
    System Classes: **Micro PC Compatible 386+**
Operating Environment: MS/DOS
Interface: Windows 3.1

Tool Features:

Primary Features:
- Estimation of Size - Effort - Schedule
- Assessment of project's Productivity - Quality - Risk
- Sizing model: estimation of software size in FP
- Effort estimation model: effort = a * Size_in_FP ^{b} a = a' * Π p$_i$ p$_i$: Productivity factors (27)
- Schedule estimation model: Time = c * Effort ^{d} c,d are estimated from the LATURI database
- Estimation in different phases of development: feasibility study - specification - design - implementation and testing

Accessory Features:
- LATURI database: 182 projects   (109,000 FP)
- Sample or whole database: Possibility of use to select projects for comparisons - only one's own projects - same size - same business sector - using the same tools, or the whole database
- Entity -Relationship: input information for the FP sizing module
- Risk identification / priority
- Process assessment

Pricing Structure:

Price Range: **[USD   4,000   - 10,000]**   List price for a single license copy and site license

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
	●						

Product Identification:

Product Name: **LDA - FP Report**   LINC Developement Assistant
Current Version: **v ...**

Vendor: Unisys
                     110 Wall Street   Tel: (212) 504-9600
                     New York, NY   Fax:
                     10005   USA

Developed by: **Unisys**

Goal: **SIZING**

Main Category: **Automatic FP Counting and Data Collection   [AUT]**
Secondary Class.:   **None**

Technical Characteristics:

Host Environment:
  Targeted Platforms: Client Stations: 386+
                         Server   : Unisys SMP & U Series, Sun SPARC, RS6000
Operating Environment:
  Client Stations: MS/DOS
  Server   :   Unix   ATT Unix System V compatible
Interface:
  Client Stations: Windows 3.1
  Server   :   XWindows

Tool Features:

Primary Features:
  ♦ Automatic FP calculation and data collection for new projects and applications
  ♦ FP output data in the form of a report: <u>FP calculation report</u>
  ♦ FP counts are based on the <u>business application model</u> stored in the central repository
Accessory Features:
  ♦ Automatic detection of application changes (project enhancements / changes): FP recalculation
  ♦ The report is completely automated there is no opportunity for human interaction to specify, for example, which components should be counted
  ♦ FP data can be downloaded from the mainframe to any spreadsheet
  ♦ Product is part of an integrated suite of model-based development tools (not sold separately)

Pricing Structure:

Price Range: **[USD   .... - ....]**   Call for price list

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
				●			

Product Identification:

Product Name: **MARS**   Metrics Analysis & Reporting System
Current Version: **v....**

Vendor: **Applied Information Development, Inc**
                      USA

Developed by: **Applied Information Development, Inc.**

Goal: **SOFTWARE METRICS DATA REPOSITORY**

Main Category: **Automated Software Metric Collection, Analysis & Reporting [SWM]**
                      Trending   [MTREND]

Secondary Class.:   **Analysis [MANA]: Value - Productivity**

Technical Characteristics:

Host Environment: System Class: **Micro PC Compatible   386+**
Operating Environment: MS-DOS
Interface: Character-based

Tool Features:

Primary Features:
- Software metrics repository: Automated software metric collection (data gathering)
- Basic measures supported (1): Size (FP - SLOC) - Effort - Time - Cost - Defect - Failure - Value
- Fundamental metrics (2): Productivity (FP - SLOC) - Quality - Reliability - Time/Duration - Cost - Performance - Value
- Critical Metric Set (customizable) (3): effectiveness - value - efficiency
- Attributes: project type - user involvement - manager experience - staff application experience - team technical experience - system availability - system responsiveness - tools - application size & complexity - language - CASE tools - methodology

Accessory Features:
- FP and SLOC sets of data
- Statistically validation of data using industry database of metrics: careful distinction made between trends and statistically significant correlations
- Quantitative (project measurements) and qualitative (project attributes) data
- Trend analysis
- Import / export project data: ASCII format
- Reporting

Pricing Structure:

Price Range: **[USD   .... - ....]**   Call for price list

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
				●			

Product Identification:

Product Name:	**Metrics Manager**
Current Version:	**v1.0** (released in November, '95)

Vendor:	**Applied Business Technology**	
	361 Broadway	Tel: (212) 219-8945
	New York, NY 10013	Fax: (212) 334-9523
	USA	

Developed by:	**Computer Power Group**
	10 Parsonage Road, Suite 212
	Edison, NJ 08837
	USA

Goal:	**SOFTWARE METRICS DATA REPOSITORY**

Main Category:	**Software Metrics Database [SWM]**
	Analysis [MANA] - Tracking [MTRACK]
Secondary Class:	**None**

Technical Characteristics:

Host Environment:

System Classes:	**Micro PC Compatible 486**+
Operating Environment:	DOS
Interface:	Windows 3.1 - Windows 95
Network:	Any PC-based Client-Server network

Tool Features:

Primary Features:
- Database for collecting work measurements and analyzing work metrics
- Data import / export to / from Project Bridge Modeler & Project Workbench
- Repository content: attributes - measures - metrics (values calculated on the basis of 2 or more measures)
- Measures includes: size, effort, elapsed time, cost, number of defects ...
- Measures list is customizable
- Metrics include: productivity, quality, reliability
- Analysis can be performed at enterprise - department - project levels

Accessory Features:
- Industry database maintained by Computer Power Group can be obtained (against subscription and supplies of customer's own data)
- Organizations can assess/calibrate their performance against that of others in the industry

Pricing Structure:

Price Range: **[USD   7,500   -   15,000]** **(USD   750 / seat)**   List price for a single license copy and site license

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
	●						

Product Identification:

Product Name: **Micro Focus Revolve**
Current Version: **v3.1**

Vendor:

Micro Focus Ltd.
Speen Court, 7 Oxford Road
Newbury, Berkshire   Tel: +(1635) 32646
England   Fax: +(1635) 33946

Developed by: **Micro Focus Ltd.**

Goal: **SIZING**

Main Category: **Software Analysis Tool with Automatic FP Counting Capability [AUT]**
Secondary Class.: None

Technical Characteristics:

Host Environment:
       System Classes: **Micro PC Compatible 386+**
Operating Environment: MS/DOS 5.0+
Interface: Windows 3.1
Network:

Tool Features:

Primary Features:
- ♦ Can generate all the industry standard metrics including: FP, Halstead, McCabe, McClure (these metrics provide an indication of the application's complexity at both the design and implementation levels)
- ♦ Other statistics include: SLOC, calls to and from, statements associated with code paragraphs

Accessory Features:
- ♦ Analysis tool aimed at supporting daily activities performed by programmers
- ♦ Interprets systems with thousands of programs and millions of SLOC
- ♦ Assesses the impact of changes: capability to cross-reference any program component across an entire system and trace data elements as they move through application
- ♦ Ability to walk a test path through code
- ♦ Can generate a series of canned reports that checks for program anomalies
- ♦ Inventory: assesses which software components belong to which application
- ♦ Interface for Micro Focus COBOL Workbench

Pricing Structure:

Price Range: **[USD .... - ....]** Call for price list

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
○	●	●					

Product Identification:

Product Name: **MicroMan EstiMate**
Current Version: **v ...**

Vendor: **Protellicess Services**
              429 Santa Monica Boulevard, Suite 460
              Santa Monica, CA   90401   Tel: (310) 393-4552
              USA   Fax: (310) 451-2888

Developed by: **POC-IT Management Services, Inc.**

Goal: **SIZING - ESTIMATION**

Main Category: **Sizing   [SIZE]**
                  Planning [PLAN] - Estimation [EST]
Secondary Class: **None**

Technical Characteristics:

Host Environment:
      System Classes: **Micro PC Compatible 386+**
Operating Environment: MS/DOS
Interface: Windows 3.1 ?
Network:

Tool Features:

Primary Features:
- Estimation of software size in FP
- Estimation of total effort required - overall estimation of project hours
- Work Breakdown Structure (WBS): Planning of project Phases - Activities - Tasks
- Sample Project Templates: major, intermediate and minor projects, study ... (customizable)
- Schedules for all project events: Based on the overall project estimate and project template

Accessory Features:
- Worksheets and computation algorithms for FPA
- Outputs data to MicroMan II (scheduling tool from the MicroMan suite)
- Re-estimation of project effort: after project completion, results from MicroMan II are used to refine the estimating process

Pricing Structure:

Price Range: **[USD   .... - ....]**   Call for price list

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
			●				

Product Identification:

Product Name: **MicroMan II**
Current Version: **v ...**

Vendor: **Protellicess Services**
429 Santa Monica Boulevard, Suite 460
Santa Monica, CA   90401   Tel: (310) 393-4552
USA   Fax: (310) 451-2888

Developed by: **POC-IT Management Services, Inc.**

Goal: **MANGEMENT   (SCHEDULING & CONTROL)**

Main Category: **Scheduling   [SCHED] - Tracking   [TRACK]**
Secondary Class.: **None**

Technical Characteristics:

Host Environment:
     System Classes: **Micro PC Compatible 386**+
Operating Environment: MS/DOS
Interface:
Network:

Tool Features:

Primary Features:
- ♦ Project scheduling
- ♦ Staff planning
- ♦ Project tracking and trending

Accessory Features:
- ♦ Inputs data from MicroMan Estimate: project size, total effort and duration
- ♦ After project completion, results fed back to MicroMan Estimate to improve estimating algorithm
- ♦ Project reporting

Pricing Structure:

Price Range: **[USD   .... - ....]**   Call for price list

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
		●		●			

Product Identification:

Product Name: **PADS**   Productivity Analysis Database System
Current Version: **v ...**

Vendor: **QSM - Quantitative Software Management, Inc.**
                       2000 Corporate Ridge,   Suite 900
                       McLean, VA   22102   Tel: (703) 790-0055
                       USA   Fax: (703) 749-3795

Developed by: **QSM - Quantitative Software Management, Inc.**

Goal: **ESTIMATION**

Main Category: **Productivity Assessment: Measure and Productivity Analysis [PRO]**
Secondary Class: **Software Metrics Database [SWM]**

Technical Characteristics:

Host Environment:
       System Classes: **Micro PC Compatible 386**+
Operating Environment: MS/DOS
Interface: Windows 3.1 - Windows 95
Network: MS LAN Manager - Win NT - Novell - OS/2 LAN Server

Tool Features:

Primary Features:
   ♦ PADS measures productivity based on captured data of completed software development releases
   ♦ Captures metrics on resources, schedule, reliability, tools and methods utilized
   ♦ Supports FP and SLOC
   ♦ Graphically plots completed projects against industry trends
   ♦ Impact analysis: schedule compression on defects and development costs, CASE tool utilization etc.

Accessory Features:
   ♦ Knowledge base: over 1500 industry completed projects for productivity benchmarking
   ♦ Captures data from completed software developments or releases
   ♦ Extracts data according to any set of conditions
   ♦ Inputs data automatically from SLIM Control to update the custom database of historical projects
   ♦ Outputs data in ASCII format
   ♦ Integrates the SLIM software metrics tool suite: SIZE Planner - SLIM - SLIM Control

Pricing Structure:

Price Range: **[USD   .... - ....]**   Call for price list

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
	●	●					

Product Identification:

Product Name: **PCA Calc add-on**
Current Version: **v4.0**

Vendor: **System House - SHL Québec**
740 Notre Dame Ouest
Montréal,   Québec   Tel: (514) 866-2891
Canada

Developed by: **Hydro Québec & Grenier St-Pierre - GSA**
Montréal,   Québec   Tel: (514)
Canada

Goal: **SIZING - ESTIMATION**
Main Category: **Automatic FP Counting and Data Collection   [AUT]**
Secondary Class.: **Estimation [EST]**

Technical Characteristics:

Host Environment:
      System Classes: **Micro PC Compatible 386+**

Operating Environment: MS/DOS 5.0+
Interface: Windows 3.1
Network: No

Tool Features:

Primary Features:
   ♦ PCA-Calc is an FP data collection and calculation tool (type 1)
   ♦ Hydro-Québec's add-on ensures a direct data input link with a CASE tool (ASYST's Développeur)
   ♦ It also automates the recognition of data and transactional function types from a DFD & E-R diagram
   ♦ PCA-Calc with the add-on automatically derives FP counts for new projects and applications
   ♦ Inputs information from a CASE Tool's Data Flow Diagram & Entity Relationship Model
   ♦ Based on the FP size and cost factors, the prototype estimates the project's effort (total) and cost
Accessory Features:
   ♦ Calibration is made using Hydro-Québec's database of completed projects
   ♦ PCA-Calc tool was built around a Lotus 123 spreadsheet; the add-on was written in Turbo C
   ♦ Historical FP counts are stored using Lotus (.wks) flat files

Pricing Structure:

Price Range: **[USD   .... - ....]**   Call for price list

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
●	●	●			○		

Product Identification:

Product Name: **Price S**
Current Version: **v2.11**   (released in June, '95)

Vendor: **Lockheed Martin - PRICE Systems**
700 East Gate Drive, Suite 200
Mt. Laurel, NJ 08054   Tel: (609) 866-6790   1 800 43PRICE
USA   Fax: (609) 866-6789

Developed by: **Lockheed Martin - PRICE Systems**

Goal: **SIZING - ESTIMATION**
Main Category: **Sizing   [SIZE]**
Estimation [EST]
Analysis: Productivity [PROD] - Risk [RISK]
Secondary Class.:   **Custom SW Metrics Repository with Knowledge-based Industry Repository**
EVALUATION: Benchmarking [BENCH]

Technical Characteristics:

Host Environment:
     System Classes: **Micro PC Compatible 386+**   **Mini Sun 4/75**
Operating Environment: DOS   Unix
Interface: Windows 3.1 & 95 - OS/2   X-Windows - Sun OS, Solaris
Network: MS LAN Manager - Win NT - Novell - OS/2 LAN Server - Appletalk

Tool Features:

Primary Features:
- Full-cycle (development - maintenance / enhancement) analytical tool
- PRICE S software estimating suite (3 modules): acquisition model -sizing model-life cost model
- Estimates software costs: effort (total and detailed) in labor hours or currency units
- Acquisition Model: estimates development costs and provides design parameters - productivity measurement - risk assessment (monte carlo or latin hypercube simulation) - financial analysis (roi) - benchmarking
- Sizing Model: sizer (estimation of size in SLOC) - FP Sizing (estimation of size in FP: translation into SLOC)
- Life cost model: estimates software support cost (maintenance - enhancement - growth in functionality) in total effort expended or currency units

Accessory Features:
- Design parameters: project type - re-use - productivity factors (organization, team, tools) - platform - complexity
- Collapsible estimating breakdown structure (EBS)
- Knowledge-based industry average parameters

Pricing Structure:

Price Range: **[USD 15,000 - 25,000]**   List price for annual license fee per site

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
●			●				

Reviewed: December, 14 1996

Product Identification:

Product Name:	**Process Continuum Project Manager**
Current Version:	**v 3.4**

Vendor: **Platinum *technology* Inc.**
1815 S. Meyers Road   Tel: (310) 337-5086
Oakbrook Terrace, IL   60181   Fax: (310) 451-2888
USA

Developed by: **Platinum Technology Inc.**

Goal: **PLANNING - MANAGEMENT**

Main Category: **Planning   [PLAN],   Management [MGM]**

Secondary Class: **None**

Technical Characteristics:

Host Environment:
      System Classes: **Micro PC Compatible 486+**
Operating Environment: DOS, OS/2
Interface: Windows 3.1 & 95 & NT
Network: None

Tool Features:

Primary Features:
- Project planning
- Project scheduling
- Staff planning
- Project progress tracking and controlling
- Integrated with Process Continuum Estimator
- Integrated with Process Continuum Task Manager

Accessory Features:
-
-

Pricing Structure:

Price Range: [USD   .... - ....]   Call for price list

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
○	●	●					

Product Identification:

Product Name: **Process Continuum Project Manager**
Current Version: **v 4.2**

Vendor: **Platinum technology Inc.**
1815 S. Meyers Road   Tel: (310) 337-5086
Oakbrook Terrace, IL   60181   Fax: (310) 451-2888
USA

Developed by: **Platinum technology Inc.**

Goal: **SIZING - ESTIMATION**

Main Category: **Planning [PLAN], Sizing [SIZ],   Estimation [EST]**

Secondary Class: **None**

Technical Characteristics:

Host Environment:
    System Classes: **Micro PC Compatible 486+**
Operating Environment: DOS, OS/2
Interface: Windows 3.1 & 95 & NT
Network: None

Tool Features:

Primary Features:
- Estimation of software size in FP
- Estimation of total effort
- Overall estimation of project hours
- Methodology route based

Accessory Features:
- Worksheets and computation algorithms for FPA
- Generates work plans for multiple Project Management software

Pricing Structure:

Price Range: [USD   .... - ....]   Call for price list

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
●	●	●		●			

Product Identification:

Product Name: **Productivity Manager**
Current Version: **v3.5**   (released in October, '95)

Vendor: **Productivity Management Group, Inc.**
                       160 Lawrence Bell Drive, Suite 122
                       Williamsville, NY 14221 - 7897   Tel: (716) 633-0621
                       USA   Fax: (716) 633-1880

Developed by: **Productivity Management Group, Inc .**

Goal: **SIZING - ESTIMATION - SOFTWARE MEASUREMENT**

Main Category: **FP Data Collection (Repository) and Calculation [DCC]**
                       Estimation [EST]
                       Software metric collection, analysis & reporting   [SWM]
                       Tracking [MTREND] - Trending [MTRACK]
Secondary Class: **Planning [PLAN] - Guidance [GUI]**

Technical Characteristics:

Host Environment:
       System Classes: **Micro PC Compatible 386+**
Operating Environment: DOS
Interface: Windows 3.1 - Windows 95
Network: Network and Client-Server supported

Tool Features:

Primary Features:
- ♦ Planning: Produce a complete WBS
- ♦ Sizing: FP calculation and count repository (Type 1 tool)
- ♦ Estimation: time - cost - defects - staff
- ♦ Measurements repository: size- time - cost - defects - staff - tools - techniques, environment inf.
- ♦ Tracking: project size, time, cost, defects, attributes: team, tools, techniques, environment
- ♦ Trending: identify trends concerning project/application changes over time

Accessory Features:
- ♦ Guidance: counting wizard provides guidance through the steps for applying counting models to produce an estimated project count (pre-defined models or define your own models):
- ♦ Project planning wizard: guide to producing a complete Work breakdown structure
- ♦ Information level: executive - organization - responsibility center - project - application
- ♦ Over 100 pre-formatted reports: project - application - administration reports
- ♦ Open architecture: query data with any query tool of your choice
- ♦ Transfer information to project management software: to create project plans & schedules

Pricing Structure:

Price Range: **[USD 4,900   -   49,000]** List price for a single license copy and site license (10+ concurrent users)

Product Information

	Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
	●	●	●					

Product Identification:

Product Name: **Project Bridge Modeler**
Current Version: **v3.0**

Vendor: **ABT Corporation**
361 Broadway   Tel: (212) 219-8945
New York, NY   10013   Fax: (212) 334-9523
USA

Developed by: **ABT Corporation**
361 Broadway
New York, NY   10013
USA

Goal: **PLANNING - SIZING - ESTIMATION**

Main Category: **Planning [PLAN] - Sizing [SIZE] - Estimation [EST]**
Analysis: Risk [RISK] - What-If [WHAT]

Secondary Class: **None**

Technical Characteristics:

Host Environment:
    System Classes: **Micro PC Compatible 386+**
Operating Environment: DOS 3.3+
Interface: Windows 3.1
Network: Any PC-based Client-Server network

Tool Features:

Primary Features:
- Project profiling: Project size (PF) - Risk evaluation - Environmental factor evaluation
- Planning: build and fine-tune the plan with a work breakdown structure (WBS) (customizable)
- Project estimation: size effort - schedule - staff
- Estimating techniques: top-down (analogical) and bottom-up (analytical)
- Refine estimates based on actual performance to date from project workbench
- Project evaluation: what-if analysis

Accessory Features:
- Support third-party methodologies
- On-line access to methodology guidelines in hypertext
- Integration with metrics manager: client's projects and industrial database
- Integration with Project Workbench for scheduling, tracking, analysis and reporting
- Application development methodology: 15 templates for different types and sizes of projects

Pricing Structure:

Price Range: **[USD 5,900   - ....]**   List price for a single copy.   Multi copy prices available on request

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
●			●				

Product Identification:

Product Name: **Project Workbench**
Current Version: **v 3.0**

Vendor: **ABT Corporation**
361 Broadway   Tel: (212) 219-8945
New York, NY   10013   Fax: (212) 334-9523
USA

Developed by: **ABT Corporation**
361 Broadway
New York, NY   10013   USA

Goal: **MANAGEMENT (SCHEDULING & CONTROL)**

Main Category: **Scheduling [SCHED], Tracking [TRACK],   Analysis [ANA   ]**

Secondary Class: **Planning   [PLAN]**

Technical Characteristics:

Host Environment:
  System Classes: **Micro PC Compatible 386+**
Operating Environment: DOS 3.3+
Interface: Windows 3.1
Network: Any PC-based Client-Server network

Tool Features:

Primary Features:
  ♦ Project Scheduling: task - duration - dependencies - resource assignment: staff, material, equipment, cost
  ♦ Scheduling: variable resource availability, variable task loading, variable task duration
  ♦ Planning and schedule estimations can be imported from proj. bridge modeler or created directly
  ♦ Evaluation of alternatives: what-if analysis
  ♦ Measurement & tracking: task status - percent complete - estimate to complete
  ♦ Project analysis & reporting: variance reporting - earned value analysis

Accessory Features:
  ♦ Management of multiple projects: master / subproject and aggregation features
  ♦ Roll-up feature: detailed and summary-level views
  ♦ View library: executive - project manager - team member
  ♦ Integration with Project Bridge Modeler to modeling, planning and estimating
  ♦ Integration with Metrics Manager: analysis of data at project, department, enterprise levels
  ♦ Guidance: on-line tutorial

Pricing Structure:

Price Range: **[USD 1,275 - ....]**   List price for a single copy.   Multi copy prices available on request

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
◉	●	●	●	◉		●	●

Reviewed: December, 14 1996

Product Identification:

Product Name: **PQM *Plus***   formerly Pro QMS (Productivity Quality Measurement System)
Current Version: **v 2.0**

Vendor: **Q/P Management Group, Inc.**
10 Bow Street   Tel: (617) 438-2692
Stoneham, MA 02180 USA   Fax: (617) 438-5549

Developed by: **Union Pacific Technologies**
7930 Clayton Road
St. Louis, Missouri 63117-1368 USA

Goal: **PLANNING - SIZING - ESTIMATION - MANAGEMENT**
SW METRICS REPOSITORY - DOCUMENTATION

Main Category: **Sizing: [SIZE], [DCC], [EXP] - Estimation [EST]**
Analysis: Risk [RISK] - Corp. Value [VALUE] - Defects [DEF] - Financial [FIN]
SW measures & metrics repository - Management [MGM]

Secondary Class: **Tracking [TRACK], Trending [TREND], Baselining [BASE]**
Analysis : [MANA], [PROD], [TRADE], [WHAT]
Documentation [DOC], Guidance [GUIDE]

Technical Characteristics:

Host Environment:
System Classes: **Micro PC Compatible 386+ - Sun**   (when available from Powersoft)
Operating Environment:
DOS 5.0+ - Unix (Sun when available from PowerSoft) - Windows NT
Interface:
Windows 3.1 - Windows 95 & NT - OS/2 Windows

Tool Features:

Primary Features:
- Planning: project work plan based upon fpa information work (high-level and detailed)
- Project estimation: size - schedule - defects
- FP sizing: high-level (rough order of magnitude) and detailed
- Full FP repository for applications and projects
- Defect tracking and analysis; Tracking of changes in scope
- Project risk analysis; Corporate value analysis
- Measurement analysis and reporting

Accessory Features:
- On-line help text with the complete IFPUG Counting Practices Manual v4.0
- Expert path: interview process (FPA) or bypass for FP experts registered
- Estimation based on client historical baseline data

Pricing Structure:

Price Range: [USD 5,900 - ....]   List price for a single copy. Multi copy prices available on request

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
●	●	●					

Product Identification:

Product Name: **QualityXpert**
Current Version: **v ...**

Vendor: **Quality Xperience Solutions**
5050 S. Lake Shore Drive, Suite 3101   Tel: (773) 667-9819
Chicago, IL   60615   FAX: (361) 667-9890
USA

Developed by: **Quality Xperience Solutions**

Goal: **PLANNING - SIZING - ESTIMATION**

Main Category: **Project Planning [PLAN]**
FP Sizing   [SIZE]

Secondary Class: **Analysis: Quality [QUA] - Risk [RISK]**

Technical Characteristics:

Host Environment:

System Classes:	**PC Compatible**	**Work Station**	**Mini**	**Mainframe**
Targeted Platforms:	586+	HP - Sun SPARC - DEC	VAX-HP-Tandem IBM
Operating Environment:	MS-DOS	Unix: HP UX 9.01 SunOS 4.13 SysV R4
Interface:	Windows 95	Xwindows (X11 r5)	Motif 1.1 / 1.2

Tool Features:

Primary Features:
- ♦ Quality analysis: quality assurance tool
- ♦ Assesses project's risks and recommends action
- ♦ Project sizing in FP

Accessory Features:
- ♦ Object-oriented knowledge-based quality assurance tool
- ♦ Neuron data SMART elements
- ♦ Portability across platforms: PCs - workstations - minis - IBMs mainframes

Pricing Structure:

Price Range: [USD   .... - ....]   Call for price list

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
	●						

Product Identification:

Product Name: **SEER - SSM**   SEER - Software Sizing Model
Current Version: **v 1.18**   (released in August, '95)

Vendor: **GA SEER Technologies**
                     Division of Galorath Associates, Inc.
                     PO Box 90579
                     Los Angeles, CA   90009-0579   Tel: (310) 670-3404
                     USA   Fax: (310) 670-6481

Developed by: **Target Software**

Goal: **SIZING**

Main Category: **Sizing [SIZE]**

Secondary Class.:   None

Technical Characteristics:

Host Environment:
    System Classes: **Micro PC Compatible 386**+
Operating Environment: MS/DOS
Interface: Windows 3.1 - Windows 95
Network: MS LAN Manager - Win NT

Tool Features:

Primary Features:

- Upper End Tool: <u>sizes by analogy</u>, based on a database of completed projects
- Size Estimation: FP and executable LOC
- Poses a sequence of questions that cause the user to compare the components (modules) of the project to others in the database.
- SSM using the comparison algorithm, converges to the most likely sizes for components and for the whole system
- Based on work of George Bozoki: estimation of absolute sizes and relative sizes (based on <u>qualitative</u> data available at the project's proposal stage)
- Outputs data to SEER - Software Evaluation Model

Accessory Features:

- Project elements are organized into a work breakdown structure (WBS)
- Knowledge-based industrial use for comparisons. Also accept a custom historical database

Pricing Structure:

Price Range: **[USD   1,950   -   3,300]**   List price for a single license copy and site license

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
●		●	●				

Product Identification:

Product Name:	**SEER - SEM**	SEER - Software Evaluation Model
Current Version:	**v4.1**	(released in November, '96)

Vendor: **GA SEER Technologies**
Division of Galorath Associates Inc.
100 North Sepulveda Blvd. Suite 1801
El Segundo, CA   90245   Tel: (310) 414-3222
USA   Fax: (310) 414-320

Developed by: **GA SEER Technologies**

Goal: **ESTIMATION - MANAGEMENT**
Main Category: **Estimation   [EST]**
                 Analysis: Risk [RISK] - Defects [DEF] - Sensitivity [ANA] - What-If [WHAT]
Secondary Class: **Scheduling [SCHED]**

Technical Characteristics:

Host Environment:

System Classes:	**Micro PC Compatible 386+**	**Macintosh**	**Workstation** **SUN**
Operating Environment:	MS/DOS	System 6.08+	Unix
Interface:	Windows 3.1 - Windows 95		
Network:	MS LAN Manager - Win NT		

Tool Features:

Primary Features:

♦ Estimations: effort - schedule - staff - defects - cost (labor hours or currency) - risk - defects & maintenance - reliability
♦ Parametric estimation: input parameters - 16 categories including predicted size, complexity, personnel capabilities, development environment, schedule, staffing, maintenance environment, etc.
♦ The underlying estimation equations are open. Model is calibrated with project data - knowledge base: industrial data from North American and European sources

Accessory Features:

♦ Environment and application: addresses any development environment and knowledge bases
♦ Input parameters: size - personnel - environment - complexity - constraints
♦ Estimation: top-down & bottom-up (object based) approaches
♦ Staffing profile: takes into account minimum time, minimum staff or both (multiple staffing constraints possible)
♦ Impact analysis: for specific project factor adjustment
♦ Identification of cost drivers: top ten cost drivers
♦ Work breakdown structure (WBS): project elements
♦ Knowledge-based industrial database of completed projects

Pricing Structure:

Price Range: **[USD   15,000   -   19,500]**   List price for a single license copy and site license

Product Information

Reviewed: December, 14 1996

Product Identification:

Product Name: **SFERA**
Current Version: **2.0**

Vendor: **Data Processing Organization Srl.**
Via Flaminia, 217   Tel: (06) 322.68.87
Rome   00196   Fax: (06) 323.3628
Italy   http://www.vol.it/dpo

Developed by: **Data Processing Organization**

Goal: **PLANNING - SIZING - ESTIMATION**

Main Category: **Sizing   [SIZE] - Estimation [EST]**

Secondary Class.:   **DOCUMENTATION**

Technical Characteristics:

Host Environment:
     System Classes: **Micro PC Compatible 386+**

Operating Environment: MS/DOS 3.0+
Interface: Windows 95
Network: Yes

Tool Features:

Primary Features:
- Early FP estimation: feasibility study
- Estimation: size, effort, schedule, cost   (total and by project phase)
- Delphi method used to build a consensus toward an early estimated value
- The LAN Module configures SFERA as groupware: enabling participation of remote stations
- Puts the participants in communication
- Data gathering and statistical computations

Accessory Features:
- Customizable
- Exports results to other productivity or estimations tools
- Exports data to MS Project - MS Excel

Pricing Structure:

Price Range: **[Italian Lire 2,000,000   -   ....]** List price for a single license copy

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
	●						

Product Identification:

Product Name: SIZE Planner
Current Version: v ...

Vendor: **QSM - Quantitative Software Management, Inc.**
2000 Corporate Ridge, Suite 900
McLean, VA 22102   Tel: (703) 790-0055
USA   Fax: (703) 749-3795

Developed by: **QSM - Quantitative Software Management, Inc.**

Goal: **SIZING**

Main Category: **Sizing [SIZE]**
Secondary Class: None

Technical Characteristics:

Host Environment:
    System Classes: **Micro PC Compatible 386**+
Operating Environment: MS/DOS
Interface:

Tool Features:

Primary Features:
- Estimates software development project size
- Encompasses 16 methods grouped into 4 general techniques for estimating the size of software development Techniques for size estimation
- Fuzzy Logic: rough estimates on simple parameters. Combines intuitive guesses of technical people with statistical characteristics of over 1500 completed projects to produce an SLOC estimate
- Function Points: evaluates the project size in FP (SLOC can be derived)
- Standard Components: Twelve independent size indicators ranging from low level (SLOC, screen reports) to high level (modules, subsystems). estimates the low, most likely and high for each component
- New, modified and reused components: estimates the effective SLOC that will require work. Uses as input: amount of reused code, unchanged code, retested code, modified code, block deletions

Accessory Features:
- Statistical processes to reduce uncertainty: Bayesian weighting & exponential smoothing
- Modular: outputs data to SLIM tool suite: SLIM - SLIM Control - SLIM Metrics
- Can be used with any resource or scheduling tool that uses FP or SLOC

Pricing Structure:

Price Range: [USD .... - ....] Call for price list

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
	●						

Product Identification:

Product Name: **Size Plus**   PC Version
Current Version: **v1.2**

Vendor: **GEC - Marconi Systems Technology**
                       4115 Pleasant Valley Road, Suite 100
                       Chantilly, VA   22021   Tel: (703) 263-1260
                       USA   Fax: (703) 263-1533

Developed by: **GEC - Marconi Software Systems**

Goal: **SIZING**

Main Category: **Sizing   [SIZE]**
Secondary Class: **None**

Technical Characteristics:

Host Environment:
   System Classes: **Micro PC Compatible 386+   MicroVAX HP 9000 Sun Sparc 3xx 4xx**

Operating Environment: MS/DOS   Unix

Interface: Windows 3.1   X Windows   OSF/Motif

Tool Features:

Primary Features:
   ♦ Sizing Model: Estimation of software size in <u>five different FP methods:</u>
   ♦ Albrecht (79), Symons, IFPUG-CPM, Feature Points, Real Time
   ♦ FP data collection (repository)

Accessory Features:
   ♦ Backfiring: Conversion to SLOC for over 40 programming languages
   ♦ Operates as a stand alone tool or with GECOMO Plus (COCOMO-based software cost estimation tool)

Pricing Structure:

Price Range: **[USD   .... - ....]**   Call for price list

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
		●			●		

Product Identification:

Product Name:	**SLIM**	Software Lifecycle Management
Current Version:	**v4.0**	(released in February, '93)

Vendor:　　　　**QSM - Quantitative Software Management, Inc.**
2000 Corporate Ridge,   Suite 900
McLean, VA   22102　　　　　Tel: (703) 790-0055
USA　　　　　　　　　　　　Fax: (703) 749-3795

Developed by:　　**QSM - Quantitative Software Management, Inc.**

Goal:　　　　　　**ESTIMATION - EVALUATION**

Main Category:　　**Estimation [EST]**
Analysis [ANA]: Impact - What-If Analysis [WHAT] - Risk [RISK]
Productivity [PRO] - Reliability   [REL] -
Secondary Class:　　**EVALUATION: Assessment [ASSESS]**

Technical Characteristics:

Host Environment:
　　　System Classes:　　**Micro PC Compatible 386+**
Operating Environment:　MS/DOS
Interface:　　　　　Windows 3.1 - Windows 95
Network:　　　　　MS LAN Manager - Win NT - Novell - OS/2 LAN Server

Tool Features:

Primary Features:
- Planning and Resource & Scheduling Estimation Tool for software development
- Estimates: size, total effort - duration - staffing - costs - defects for a software development project
- Estimates based on the work of Raleigh-Norden curve, calibrated with the vendor's database of completed projects
- What-If   analysis: different stored estimate scenarios can be compared side by side
- Assessment: compares the project plan against records of previous completed projects
- Planning scenarios: stores - analyses - compares different staffing levels - resources - desired reliability - schedules
- Productivity & risk analysis
- Software reliability forecasting: mean time to failure

Accessory Features:
- Repository: custom software metrics and industry projects databases
- Knowledge database (industry averages): over 2800 completed projects
- Expert system technology: determines default parameters from the repository of stored records
- Outputs data to SLIM Control: tracking, management and reporting tool

Pricing Structure:

Price Range: **[USD 2,000   -   30,000]**   List price for a single license copy and site license

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
			●	○			

Product Identification:

Product Name: **SLIM <u>Control</u>**   Software Lifecycle Management Control
Current Version: **v2.0**   (released in February, '93)

Vendor: **QSM - Quantitative Software Management, Inc.**
                       2000 Corporate Ridge,   Suite 900
                       McLean, VA   22102   Tel: (703) 790-0055
                       USA   Fax: (703) 749-3795

Developed by: **QSM - Quantitative Software Management, Inc.**

Goal: **MANAGEMENT**
Category: **Controlling: Tracking [TRACK], Analysis [ANA], Control   [CRTL]**
Secondary Class: **Software metrics   [SWM]**

Technical Characteristics:

Host Environment:
        System Classes: **Micro PC Compatible 386**+
Operating Environment: MS/DOS
Interface: Windows 3.1 - Windows 95
Network: MS LAN Manager - Win NT - Novell - OS/2 LAN Server

Tool Features:

Primary Features:
- Process Management and Control: Periodically measures (actuals) are compared to the project's development plan and evaluated to see if re-planning is called for
- Statistical control techniques are used to monitor software development progress: if needed, alternatives can be evaluated and the most consistent new plan generated automatically
- Basic set of metrics collected on a monthly basis: effort - defects - milestones - SLOC or FP
- Customization: Up to 20 metrics can be created over and above the basic set provided in SLIM-Control
- Assessment: Traffic-lights identify quickly when a project is under control or requires corrective action
- Control: Statistical boundaries establish the thresholds that will trigger the traffic-light assessment
- Simulated forecasts: inputs anticipated performance levels and analyzes what impact this has on the forecasts

Accessory Features:
- Configurable analysis view: up to 16 on the screen at one time
- Customization of the software life-cycle: creates and stores any lifecycle paradigm
- Monthly or weekly reporting: selects the appropriate reporting cycle
- Repository: up to 20 plans and / or forecasts can be stored
- Inputs data from SLIM Control: tracking, management and reporting tool
- Outputs data to SLIM Metrics: software metrics repository, analysis and reporting tool

Pricing Structure:

Price Range: **[USD 2,000   -   30,000]**   List price for a single license copy and site license

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
				●			

Product Identification:

Product Name:	**SLIM Metrics**	Software Lifecycle Management Metrics
Current Version:	**v2.0**	(released in February, '93)

Vendor: **QSM - Quantitative Software Management, Inc.**
2000 Corporate Ridge,   Suite 900
McLean, VA   22102   Tel: (703) 790-0055
USA   Fax: (703) 749-3795

Developed by: **QSM - Quantitative Software Management, Inc.**

Goal: **SOFTWARE METRICS DATA REPOSITORY**
Main Category: **Software Measurement Data Repository   [SWM]**

Secondary Class: **None**

Technical Characteristics:

Host Environment:
    System Classes: **Micro PC Compatible 386+**
Operating Environment: MS/DOS
Interface: Windows 3.1 - Windows 95
Network: MS LAN Manager - Win NT - Novell - OS/2 LAN Server

Tool Features:

Primary Features:
- Software metrics repository, analysis and reporting tool
- Custom metrics: creates metrics over and above the basic set provided

Accessory Features:
- Inputs data from SLIM: sizing and estimation tool
- Inputs data from SLIM Control: tracking, management and reporting tool

Pricing Structure:

Price Range: **[USD 2,000   -   30,000]**   List price for a single license copy and site license

Product Information

	Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
		●						

Product Identification:

Product Name: **SMART Counter**   certified tool

Current Version: **v 2.0A**   (released in January, '95)

Vendor: **DDB Software Inc.**
1935 Salt Myrtle Lane
Orange Park, FL 32073   Tel: (904) 213-9836
USA   Fax: (904) 215-0444

Developed by: **DDB Software Inc.**

Goal: **SIZING**
Main Category: **FP Data Collection and Calculation [DCC]**
Secondary Class.:   **None**

Technical Characteristics:

Host Environment:
    System Classes: **Micro PC Compatible**
    Targeted Platforms: **386**+
Operating Environment: MS-DOS
Interface: Windows 3.1 - Windows 95

Tool Features:

Primary Features:
- FP data collection (repository) and calculation (type 1 tool: IFPUG classification)
- The tool conforms to the IFPG CPM r4.
- Counts data at application / project level   - Tracks all enhancements

Accessory Features:
- Guidance: SMART Counter follows a logical counting sequence
- Repository: MS-Access database
- Help for FP counting method: not available
- Data import (from spreadsheets) and export (default extension: .**CDF)**
- Free-form notes: Application information
- Reports: application report & project report -   report preview - summary & detail
- Module of SMART tool line

Pricing Structure:

Price Range: [USD   595   -   ....   ]   List   price   for   a   single   license   copy

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
				●			

Reviewed: December, 14 1996

Product Identification:

Product Name:	**SMART Data**	Software Measurement Data Repository
	Software Measurement Analysis and Reporting Tool (SMART) Suite	
Current Version:	**v ...**	

Vendor:	**DDB Software Inc.**
	1935 Salt Myrtle Lane
	Orange Park, FL 32073 Tel: (904) 213-9836
	USA Fax: (904) 215-0444

Developed by:	**DDB Software Inc.**

Goal:	**SOFTWARE METRICS DATA REPOSITORY**
Main Category:	**Software Measurement Data Repository [SWM]**
Secondary Class.:	**None**

Technical Characteristics:

Host Environment:
    System Classes: **Micro PC Compatible**
    Targeted Platforms: **386+**
Operating Environment:

    MS-DOS

Interface:

    Windows 3.1 - Windows 95

Tool Features:

Primary Features:
- Software measurement data repository
- Partitioned along project and application
- Provides both an industry and a client database repository

Accessory Features:
- Imports industry measurement data (permits periodic updates of industry data)
- Application / project data: size, effort, schedule, defects, costs, SEI levels, variables, unique client data
- Interface to all SMART products
- Populates via screen input or import capability
- On-line help

Pricing Structure:

Price Range: **[USD   .... - ....]**   Call for price list

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
		●			○		

Reviewed: December, 14 1996

Product Identification:

Product Name: **SMART Risk**   Project Estimator
Software Measurement Analysis and Reporting Tool (SMART) Suite
Current Version: **v 1.0**

Vendor: **DDB Software Inc.**
1935 Salt Myrtle Lane
Orange Park, FL 32073   Tel: (904) 213-9836
USA   Fax: (904) 215-0444

Developed by: **DDB Software Inc.**

Goal: **PROCESS ASSESSMENT - ESTIMATION**
Main Category: **Estimation [EST]   - Assessment and Comparisons [EVAL]**
Analysis: Productivity [PROD]
Secondary Class.:   **Benchmarking [BENCH] - Baselining [BASE]**

Technical Characteristics:

Host Environment:
    System Classes: **Micro PC Compatible**
    Targeted Platforms: **386+**
Operating Environment:
    MS-DOS
Interface: Windows 3.1 - Windows 95

Tool Features:

Primary Features:
- ♦ Estimates: total effort - defect total - productivity rates - costs
- ♦ Software process assessment and evaluation
- ♦ Process comparison to best in class practices
- ♦ Project profile and project comparative analysis
- ♦ Import or direct entry of size (FP or SLOC) and other project variables (language, skill levels, technology, process methodology)
- ♦ Exports estimated productivity values
- ♦ Utilizes industry data or client baseline data or some combination of these values to derive estimates

Accessory Features:
- ♦ Performs various what-if analyse
- ♦ Displays individual projects relative to client baseline or industry data
- ♦ On-line help

Pricing Structure:

Price   Range: [USD   ....   -   ....   ]   Call   for   price   list

Product Information

	Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
	●	●	●	○	●			

Product Identification:

Product Name: **Synergy**
Current Version: **v ...**

Vendor: **CMD Corporation**
                  51 Monroe, Suite 1700   Tel: (301) 738-8835
                  Rockville, MD 20850   Fax: (301) 738-8803
                  USA

Developed by: **CMD Corporation**

Goal: **PLANNING - SIZING - ESTIMATION - MANAGEMENT**

Main Category: **Sizing (High-level) [SIZE]   -   Estimation [EST]**
                         Analysis: Risk - Cost/Benefits - Problems
                         Management: Resource Assignment - Tracking (Products & Metrics)
Secondary Class.:   **SOFTWARE MEASUREMENT [SWM]**

Technical Characteristics:

Host Environment:
    System Classes: **Micro PC Compatible**
    Targeted Platforms: **386+**
Operating Environment: MS-DOS
Interface: Windows

Tool Features:

Primary Features:
♦ Planning: create - manage - customize <u>development path</u> definitions (wich reflect the best practices)
♦ Sizing (high-level) in fp: new development and enhancement projects
♦ Estimation: effort (top-down, bottom-up, function point techniques)
♦ Risk assessment;   cost / benefit analysis
♦ Problem tracking and reporting: problem with deliverables, assignment, project plans, standards, etc.
♦ Resources assignment: assignes resource roles and responsibilities to tasks
♦ Capture, tracking and reporting on metrics; estimates & actuals can be used to refine estimates
♦ Capture and tracking of work products; sharing and management of deliverables

Accessory Features:
♦ Store and indexes organization's standards, techniques and any other reference material
♦ Changes request tracking / management facility
♦ Bi-directional interface to project management tools to develop project scheduling
♦ Full e-mail support

Pricing Structure:

Price Range: **[USD .... - ....]**   Call for price list

Product Information

Plan	Size	Est	Mgm	SWM	Eval	Train	Doc
	●			●	●		

Product Identification:

Product Name:	**VIARECAP**	Portfolio Analysis
Current Version:	**v2.1**	(released in September, '95)

Vendor:	**VIASOFT, Inc.**
	3033 North 44th Street
	Phoenix, AZ 85048 USA

Developed by: **VIASOFT, Inc.**

Goals: **SIZING - SOFTWARE METRICS DATA REPOSITORY**

Main Category: **Automatic FP counting   [AUT]**
Secondary Class.:   **Automated Software Metrics Collection, Analysis & Reporting   [SWM   ]**
     Quality Assessment [QUA]

Technical Characteristics:

Host Environment:
    System Class: **Mainframe   IBM**
    Optional PC Stations: 386+   instead of 3270 terminals   (VIA / Recap 2)

Operating Environment: IBM - MVS / XA   or   MVS / ESA
    Optional PC Stations: OS /2   2.0+ (VIA / Recap 2)

Interface: Character-based
    Optional PC Stations: OS /2 Windows (VIA / Recap 2)

Tool Features:

Primary Features:
- Automatic FP calculation using Portfolio Analysis component (integrates VIASOFT's ESW suite)
- Automatically generated metrics: Halstead (Software Science Volume) - McCabe (Essential Complexity) - McCabe (Cyclomatic Complexity) - McClure (Control Variable Compl.) - Control Flow Knots - FP

Accessory Features:
- All metrics, including FP, are stored in VIASOFT's Application Knowledge Repository
- Assessment: comparison of one application against other selected applications
- Quality Assessment: establishes a baseline and identifies application's quality evolution
- Trend Analysis: compare and plot against the last 20 versions of the metric
- Multi level information aggregation: program - application - enterprise
- Inputs data from any COBOL code generator
- Exports data to spreadsheets, databases, graphics packages

Pricing Structure:

Price Range: **[USD   .... - ....]**   Call for price list

Abbreviations

1:   ACR - Applied Computer Research Inc., **Software Metrics and Project Management Tools Function**

ACR Philip Howard Editor/Publisher 1995 30pp

2:   Zvegintzov, N., **Software Management Technology Reference Guide r4.2**

Software Maintenance News Inc. 1993-4 Edition

3:   Giles, A.E., Barney D., **Metrics Tools: Software Cost Estimation**

Software Engineering Technology , June 1995, pp. 7-10

4:   PM Network: **Information Systems Project Estimating Software Survey**

PM Network December 1995 pp. 36-39

5:   PM Network: **Project Management Software Survey**

PM Network May 95 pp. 33-48, August supplement pp. 33-38, November supplement pp. 48-49

6:   **FP Tool Commercial Literature**

7:   **SERML - UQAM's FP Tool Questionnaire**