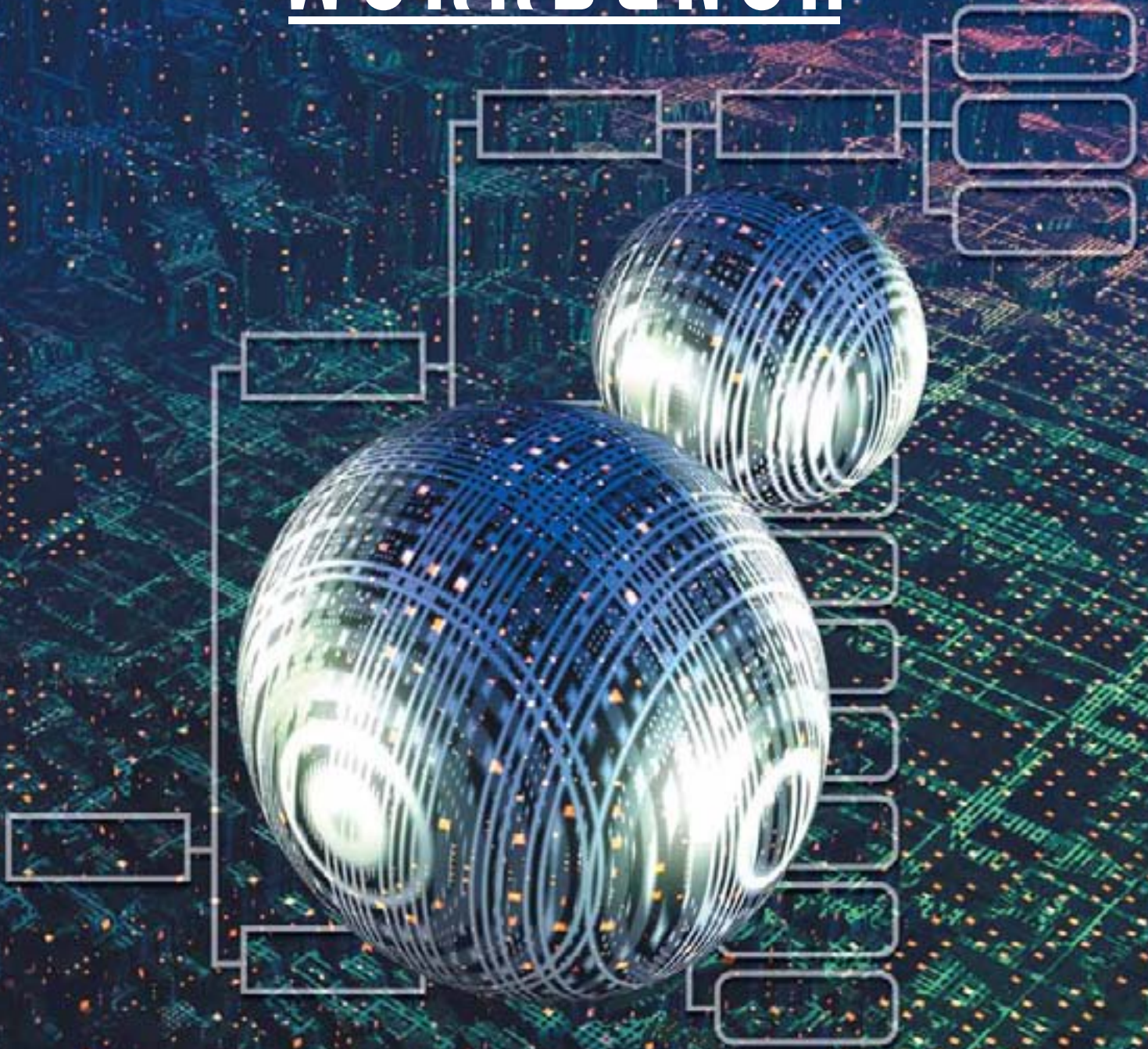


Function Point WORKBENCH



For the people who count.



CHARISMATEK
SOFTWARE METRICS

The Value of Function Point Analysis

Software organisations in all industries suffer from the inability to effectively estimate software projects, value software assets and objectively assess the software production and support process and environment. These are critical capabilities essential to the business of managing a dynamic Information Technology environment.

Function Point Analysis, invented by Allan Albrecht in 1979, has proved itself as an effective mechanism to provide the quantified basis on which such assessments and analyses can be made.

Function Point Analysis focuses on the inherent functionality delivered in the software as understood and recognised by the customer, or user of the software. Especially since the advent of the International Function Point Users Group (IFPUG) in 1984 (and now as an ISO standard), Function Point Analysis has proven its consistency and value as a communications vehicle and valuation technique. It is increasingly the software sizing metric of choice for developers and customers.

The wide range of uses for Function Point Analysis underscores the critical need for an effective method and tool that not only supports the counting process but also provides support for integrated estimating, scope control and client/supplier communication. Information from the sizing process also provides essential input to process assessment, cost forecasting, project management, performance benchmarking and budget planning.

The Value of the Function Point WORKBENCH™

Product Overview

The Function Point WORKBENCH™ is a network ready Windows-based software tool which makes it easy for an organisation to implement the Function Point Analysis technique for sizing, estimating and evaluating software.

The Function Point WORKBENCH™ is specifically designed to be scalable for effective use by individual counters as well as for large distributed IT environments.

The Function Point WORKBENCH™ provides an ideal counting tool for all situations and for all software sizing needs.

- Software Definition
- Project Estimation
- Outsourcing Management
- Benchmarking
- Project Control
- Cost Negotiation

Who Uses the Function Point WORKBENCH™and How!

The Function Point WORKBENCH™ serves the needs of many business roles - of all the People Who Count. It meets the direct needs of the Function Point Counters...but it is designed within the context of the software development process as well as corporate management and reporting. Function Point Counters, Project Managers, Metrics Program Managers, Software Executives and Business Executives can all gain specific and real benefits.

Function Point Counters

- Provides a custom built visual user interface for performing, displaying, reviewing, annotating and reporting the count
- Automates counting by automatic assignment of function type, complexity and function points as you key count data directly or paste from an external source. This optimises speed and reliability of counting
- Assists in identifying functions and sizing these in accordance with international (IFPUG) standards
- Provides for information and document cross-references within the count and hyperlinks to external references, so that counts are fully auditable and defensible
- Provides capabilities to operate in 'beginner' as well as 'advanced' user mode for faster counting
- Offers large application/project facilities for easy find, analyze, review and report
- Supports multiple counting standards – IFPUG and NESMA
- Supports counts for any type of software or environment
- Supports counts for an existing portfolio, enhancement projects, new development and evolutionary projects
- Supports sizing of multiple concurrent work items against an application baseline
- Allows definition and assignment of user-defined attributes to transactions to facilitate count analyses and sizing of subsets
- Provides facilities which enable a counter to reuse all or parts of previous counts and build templates for future use
- Provides for concurrent sharing of data
- Facilitates application and integration of sizing data with overall project and process management
- Provides extensive reporting and analysis of a single count as well as portfolio reporting across counts
- Supports distribution and communication of counts in hyperlinked .html and .xml formats.

Software Project Managers

- Defines project scope precisely and unambiguously
- Tracks and highlights changes in the software size as a project progresses
- Provides for objective, defensible and communicable macro-estimates of cost and effort
- Interfaces to additional, highly sophisticated project estimating tools
- Facilitates “what-if” analyses for exploring estimates for different strategies for developing, enhancing or maintaining software
- Provides the control and communication tool necessary for effective business alignment
- Enhances outsourcing management and control.

Metrics Program Managers

- Supports a distributed counting environment through absolute flexibility in moving, copying, merging counts to/from multiple locations and portfolios
- Assists the implementation and use of common counting approaches and count documentation standards
- Manages counts of ALL sizes, from the extremely large to the very small
- Includes built in security and naming conventions
- Offers unlimited licensing options
- Provides outstanding reporting options, including cross-count portfolio analyses
- Assists improved consistency of counting across disparate groups
- Facilitates reporting integration of sizing and estimating data with information from other sources.

Software Executives

- Illuminates effectiveness of the software delivery / support processes
- Gives vital assistance in assessments of software asset value and replacement cost
- Calculates and illustrates growth in software applications and portfolio(s)
- Assists strategic planning by analysing functionality delivered or promised in user-defined (business) terms
- Provides ability to negotiate and evaluate business change costs versus software costs
- Supports effective implementation of SW-CMM, CMMI and other process improvement approaches
- Enables major systems replacement strategies (business change cost of software investment) to be evaluated.

Business Executives

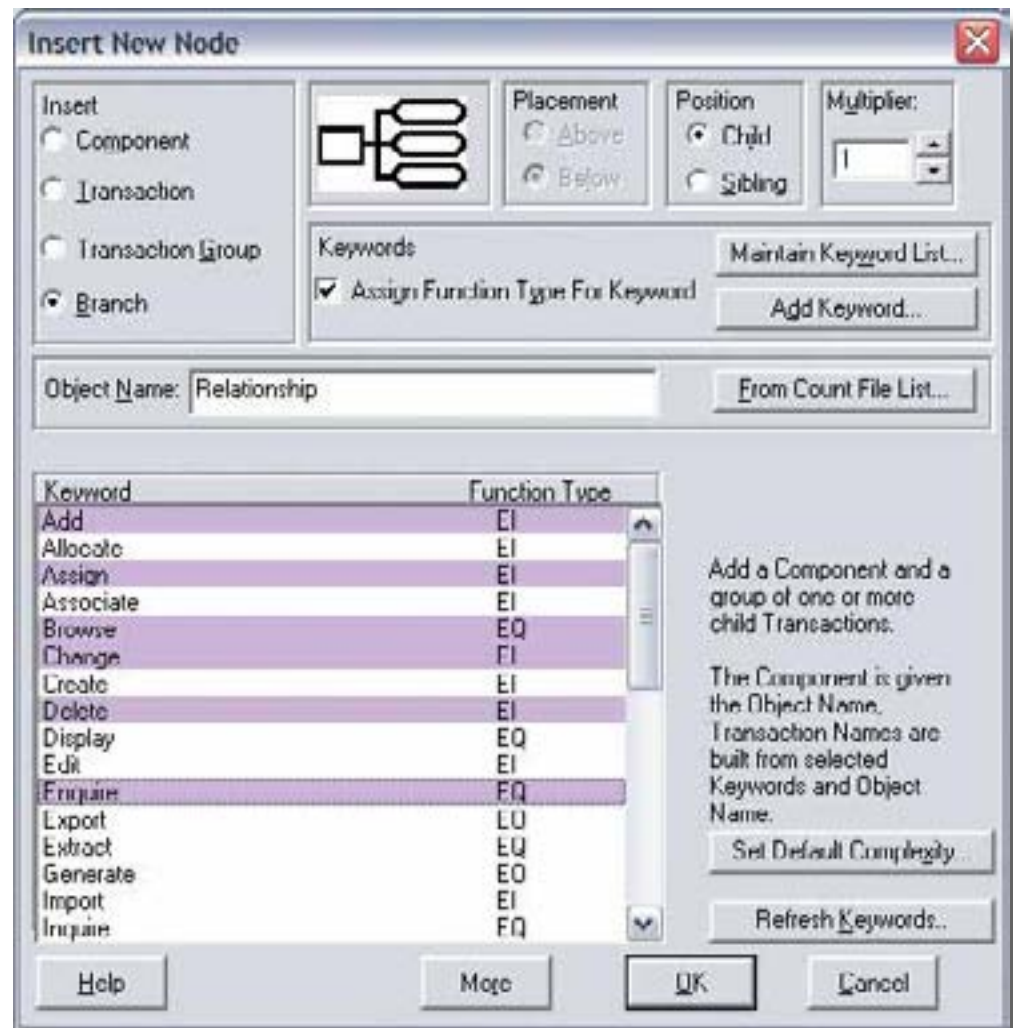
- Allows business management to communicate and define software applications - and consequent costs - from a business perspective
- Provides bottom line software valuation
- Provides a basis for comparative performance assessments through benchmarking
- Delivers a means of assessing / negotiating software related costs in business terminology
- Enables control of software linked to an accounting/business perspective
- Facilitates effective communication of software costs and ROI analysis
- Informs and communicates portfolio decision making.

Faster, Smarter Counting

The WORKBENCH is designed by people who count. It has been specifically crafted to make building the model and assigning function points as quick and easy as possible. It caters for counts where information or resources are limited, such as early life cycle counts, as well as detailed counts. It caters for small counts and large counts – with expert help all the way.

The WORKBENCH includes clever mechanisms to make counting faster and smarter.

- Insert New Node provides point and click features to allow groups of Transactions to be named and inserted with a single [OK].



- The Keyword – Function Type Lexicon automatically assigns Function Type to new logical transactions. This Lexicon is prepopulated but is easily customised to your organisation's standards or language.
- Default complexities for all Function Types, as defined by the user, are also automatically assigned to new logical transactions and Files.
- Data can be pasted or imported from external sources and automatically classified.

These mechanisms mean that counting is faster, more accurate and can be set up to support organisation naming conventions.

The user sits in the primary workspace and communicates with the WORKBENCH through a series of user friendly dialog boxes operating in a standard Windows environment.

Menu access to functions makes counting easy for those inexperienced in the software as well as inexperienced in counting.

There are also an abundance of features for the advanced users – toolbar, keyboard, context menu and mouse short-cuts.

Defensible and Auditable Counts

The software model provides the basis for defining functionality in accordance with relevant counting standards. It also provides the structure for annotating the model and the count with:

- Description, purpose and context of the count
- Notes, cross-reference and hyper-linking to 'real-world' objects and comment against specific counted items
- User-defined attributes assigned to Transactions so that sub-sets of the count can be selected and sized for further count analysis (e.g. Release One, Release Two, etc.).

Classify Transaction

Name: Record Requisition

Function Points: 6 Multiplier: 1

Function Type:

- External Input
- External Output
- External Inquiry
- Not Classified

Complexity Rating Method:

- Rapid
- Record DETs/FTRs
- Automatically Derived

Enhancement Type:

- Add
- Change
- Delete
- None

Input: 3

Data Element Types: 16

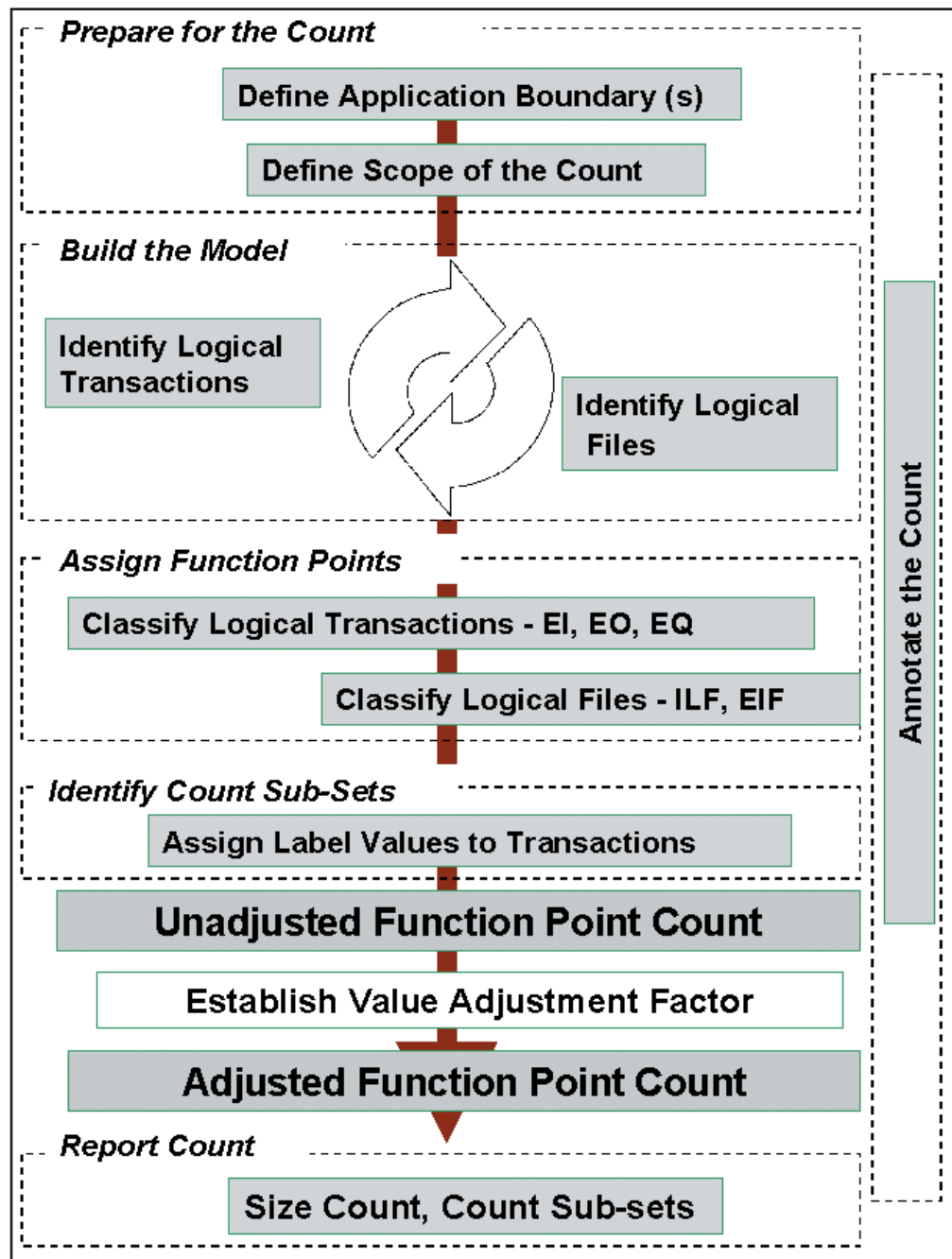
	1-4	5-15	>=16
File Types Referenced 0-1	<input type="radio"/> Low	<input type="radio"/> Low	<input type="radio"/> Avg
2	<input type="radio"/> Low	<input type="radio"/> Avg	<input type="radio"/> High
>=3	<input type="radio"/> Avg	<input type="radio"/> High	<input checked="" type="radio"/> High

Buttons: OK, Cancel, Convert to Component..., Link Labels..., Link Notes..., Link Files...

Embedded Sizing Methodology

Embedded within the Function Point WORKBENCH™ is a documented professional counting methodology based on software modelling.

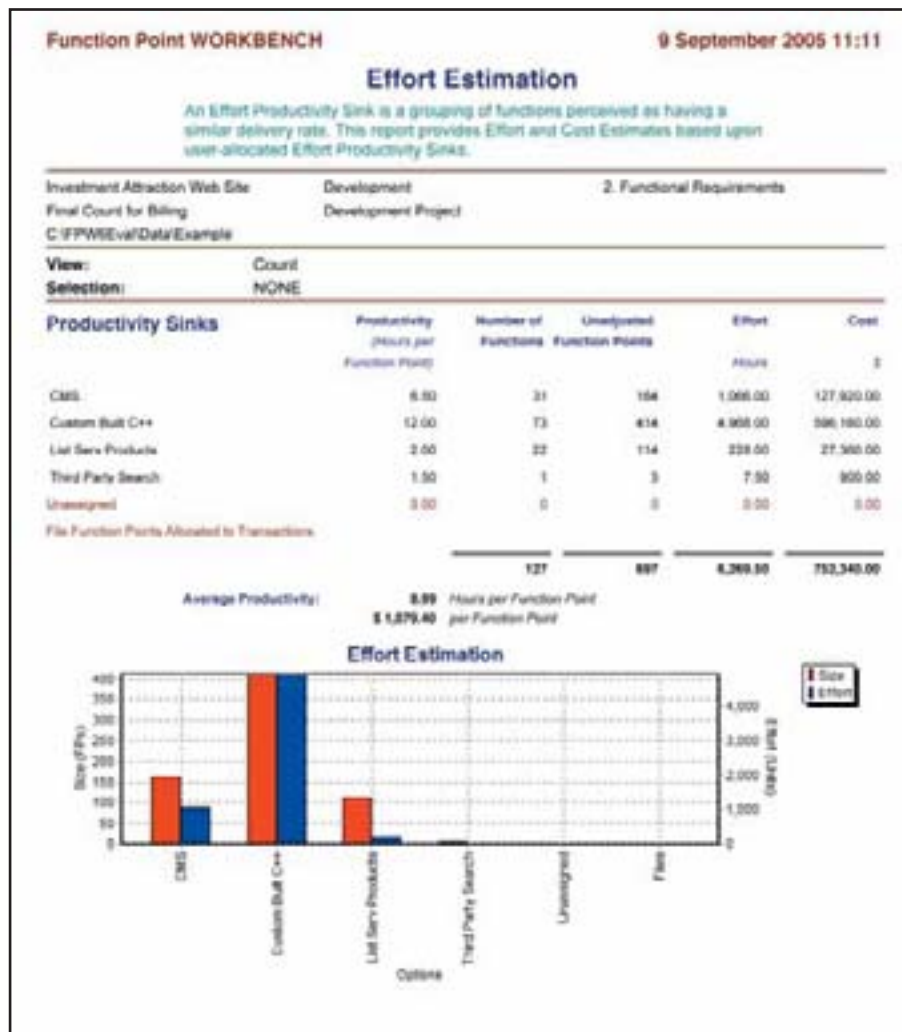
The methodology is applicable throughout the software life cycle.



Integrated Estimating

The WORKBENCH incorporates an effective integrated sizing / estimating capability. Using a simple process of mapping functionality groups (Productivity Sinks) to their expected rate of delivery in the functional model, reliable and defensible forecasts of effort and cost can be quickly achieved.

The model provides the direct link to the software requirements and annotates the basis and assumptions behind the forecast performance. Further, it provides the basis for communication and transparency of the estimates and documents – clear of ambiguity – the intended software deliverables.



Productivity Rate Calculator

Support for choosing likely productivity rates for the Productivity Sinks used in the estimating is provided through a simple Productivity Rate Calculator. For maximum benefit, this Calculator should be tailored to your environment.

Function Point WORKBENCH - Productivity Rate Calculator						
1. Productivity Sink:	New Development - Modern Environment (IDE) <input type="button" value="v"/>					
2. Project Phases:	<input type="checkbox"/> Requirements <input checked="" type="checkbox"/> Planning <input checked="" type="checkbox"/> Design <input checked="" type="checkbox"/> Construction <input checked="" type="checkbox"/> Testing <input checked="" type="checkbox"/> Documentation <input checked="" type="checkbox"/> Project Management					
3. Project Size:	250 <input type="text"/> Function Points					
4. Project Drivers:		Very Positive	Positive	Neutral Case	Negative	Very Negative
	Software Complexity:					
	Personnel Skill & Knowledge:					
	Process Maturity:					
	Driver Summary:					
5. Productivity Rate	Lower Bound on Likely Range:	6.7 <input type="text"/>	Hours per Function Point	<input type="button" value="Copy Option Text ..."/>		
	Likely Value in Range:	10.0 <input type="text"/>	Hours per Function Point	<input type="button" value="Copy Option Text ..."/>		
	Upper Bound on Likely Range:	15.5 <input type="text"/>	Hours per Function Point	<input type="button" value="Copy Option Text ..."/>		
© Copyright CHABIRMAATEK Software Metrics 2005						

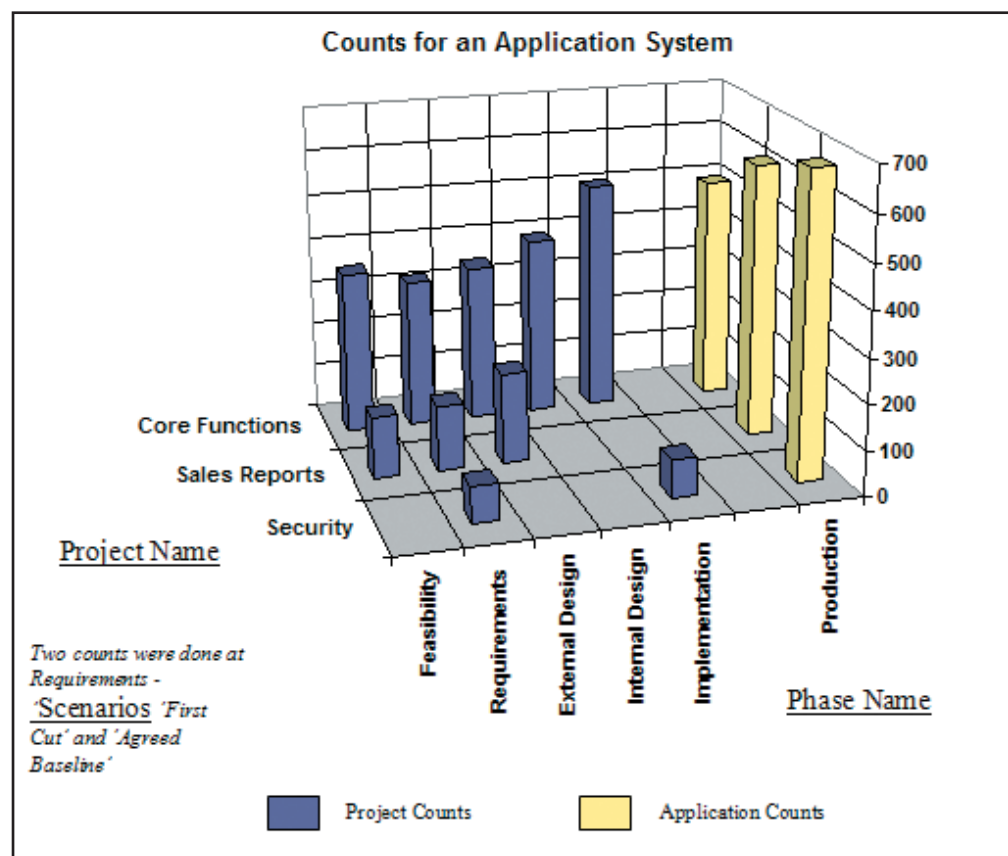
A Productivity Sink is a subset of project functionality comprising functions expected to have a relatively homogenous Productivity Delivery or Cost Rate.

Productivity Sinks can be formed on the basis of project and environment attributes such as:

- Technology Choices
- Product Characteristics or
- Delivery Strategies

Software Portfolio Management

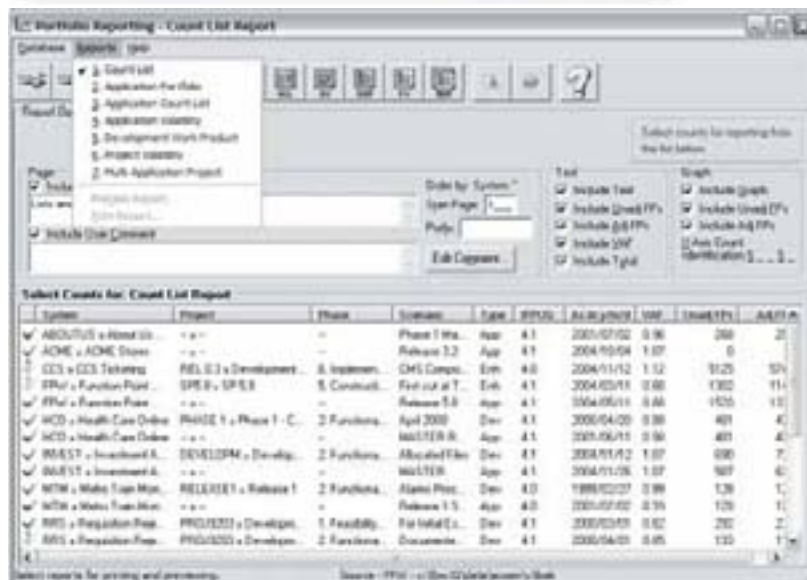
The Function Point WORKBENCH™ provides a structured repository for your Function Point counts. Life Cycle Sensitivity is provided by specifying that the count is a 'snapshot' for software in production or for a development or enhancement project at a project life cycle milestone. The evolution of an entire Application Portfolio or an individual software system over time can be clearly documented. This provides a clear basis for portfolio size management.



Sophisticated Analysis and Reporting

Reporting – For a Single Count and Across Counts

Reporting is substantial, comprehensive and informative. It is available at a management information level and at a technical level (drill down and linkage reporting for detailed examination when required) and can be produced as web ready output (xml or html format), spreadsheet format or as simple printed reports.



Function Point Workbench 28 July 2006 12:02

Transaction and File List

Requestion Rejection System Add Security E. Implementation
 User Login and Password Enhancement Project

View: Count
 Level: 0
 Component: Requestion Rejection System
 Selection: NONE

Modifier	Name	Type	Enhancement Type	Complexity	Multiplier	Function Points
TRANSACTIONS						
2.1.1	Reset Password	FI	CHANGE	LOW	1	3
2.1.2	Delete Password	FI	CHANGE	LOW	1	3
2.1.3	List Passwords	EO	CHANGE	LOW	1	4
2.2.1	Add User	FI	ADD	LOW	1	3
2.2.2	Change User	FI	ADD	LOW	1	3
2.2.3	Delete User	FI	ADD	LOW	1	3
2.2.4	Change Password	FI	ADD	AVE	1	4
2.2.5	Print User List	EO	ADD	LOW	1	4
FILES						
SECURITY	User Security	LF	ADD	LOW	1	7

Number of Functions	8
Unadjusted Function Points	34
ADDED Function Points	+ 28
CHANGED Function Points	+ 30
Value Adjustment Factor (delta)	+ 0.90
DELETED Function Points	+ 7
Value Adjustment Factor (delta)	+ 0.30
Development Work Product Adjusted Function Points	31

Charonsoft Software Metrics

Function Point WORKBENCH 8 November 2004 10:58

Count SubSystem Analysis

This report displays the following view of each of the applications & subsystems that exist within the number of functions, function size and the average complexity of each subsystem is employed.

About My Website (Date: 1 May 2001) C:\FP332

View: Count
 Selection: NONE

SUBSYSTEM	Number of Functions (Transactions or Files)	Average Locality	Unadjusted Function Points (Transactions or Files)
1. Content Accounting & Management	1	3.8	39
2. Relationship Management	12	1.3	34
3. Performance Monitoring	12	5.0	60
4. Search and Extraction	9	4.6	72
5. Public Web-Gate	6	4.2	25
6. Misc	11	7.6	64
	54	Actual Count Value:	282

Function Point WORKBENCH 8 September 2005 11:05

Project Volatility

This report displays the volatility of the project over time. The volatility is calculated as the change in the number of functions over time.

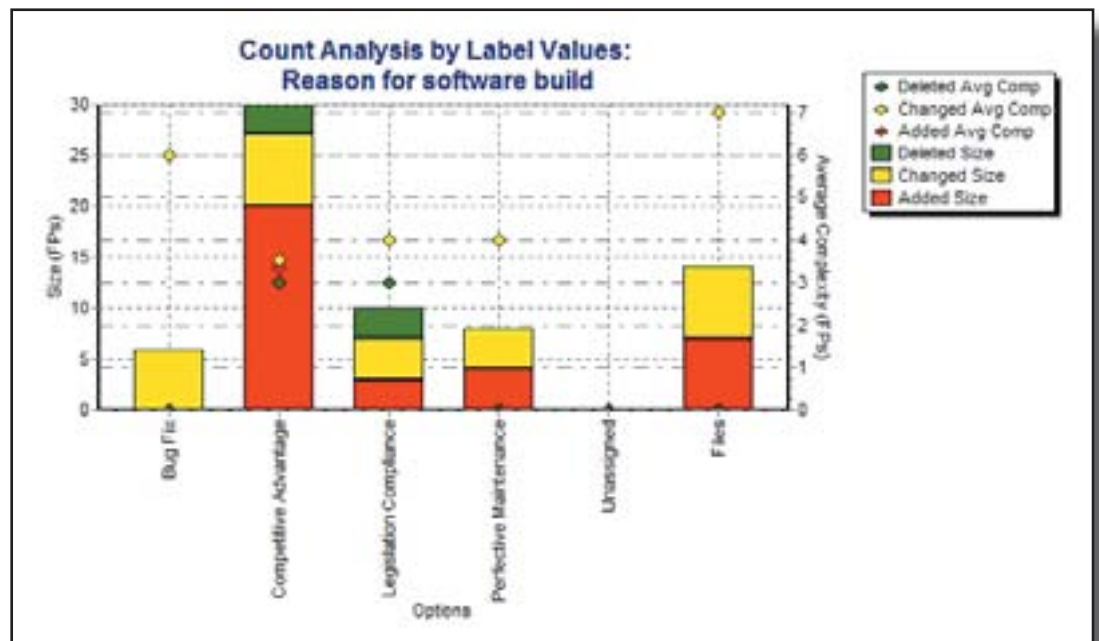
CCS & CENTRAL BANK/ACC RPL 0.3.4 Rev. 044 0.3
 C:\fp3\workbench\4\20040908\proj\140488\sub\vol.htm

Count Views / Analyses

The Function Point WORKBENCH™ provides a significant extension to the conventional ways of viewing and understanding Function Point Analysis through its support for the sizing of count sub-sets. Each function in the software can be assigned a value for a user-defined attribute to illuminate almost any business issue (e.g. Solution Priority, Business Reason for Spend). These attributes can then be used to extract and size sub-sets of the total count.

For example, this capability can be used by a project manager in consultation with clients to prioritise functionality in a proposed system and extend this into 'what-if' estimates of effort and cost.

In the example here, it has been used to highlight more general business concerns such as direct and indirect value returned.



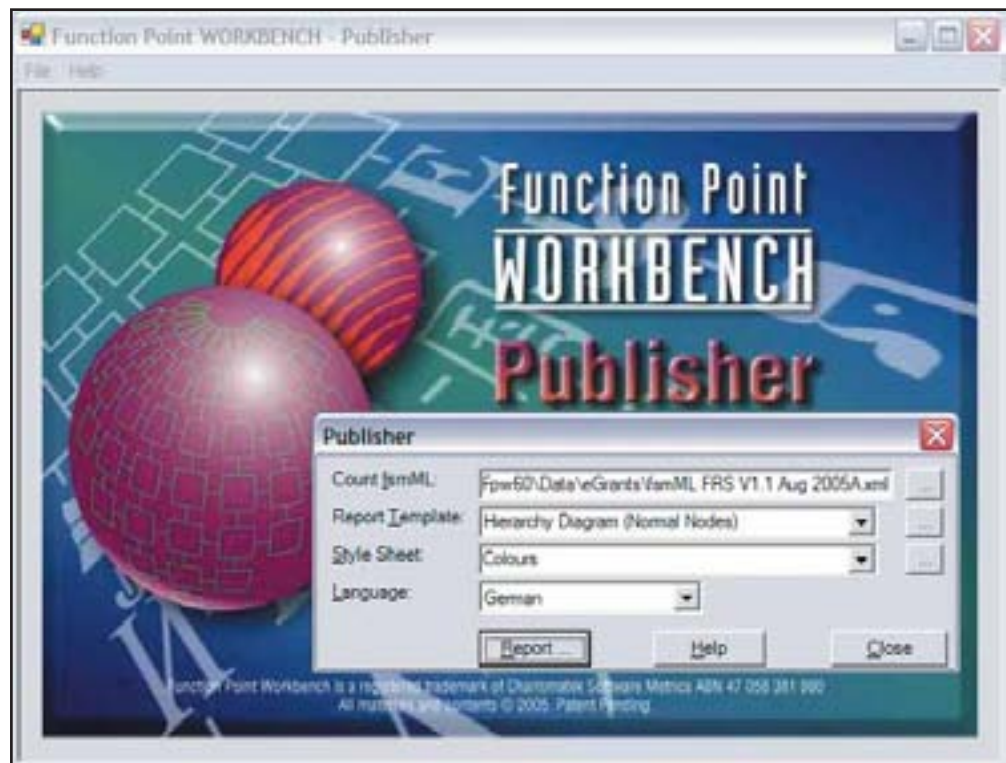
Report Publisher - Personalise, customise, standardise

The WORKBENCH Publisher provides distributed web publishing of Count Reports.

The Publisher is self contained. It uses:

- An .xml representation of a count, generated by the WORKBENCH
- A set of Report Templates and Stylesheets which present the count data for viewing using any standard Web Browser. These Templates and Stylesheets are easily further customized.
- A Language Lexicon which allows the report to be published in local languages.

The Publisher is installed as a standard part of the WORKBENCH but can also be installed anywhere you wish to view reports, without any additional purchase or licencing arrangements.



트랜잭션 목록

Requirement Rejection System Development of RRS 2 Functional Requirements
 Final - Scope Agreed 개발 완료됨

번호	기능명	기능유형	복잡도	가중치	기능점수
트랜잭션					
1.1.1	Add Catalogue Item	EI	VB	1	2
1.1.2	Change Catalogue Item	EI	WB	1	3
1.1.3	Delete Catalogue Item	EI	WB	1	2
1.1.4	Enquire on Catalogue	EQ	VB	1	2
1.1.5	CD Rpt Overnight Download	EO	VB	1	4
1.2.1	Load Item Location	EI	WB	1	3
1.2.2	Add Item Location	EI	WB	1	2
1.2.3	Change Item Location	EI	WB	1	3
1.2.4	Delete Item Location	EI	WB	1	2
1.2.5	List Locations /Catalogue Item	EQ	VB	1	3
1.3.1	Add Warehouse Description	EI	WB	1	2
1.3.2	Change Warehouse Description	EI	WB	1	2
1.3.3	Delete Warehouse Description	EI	WB	1	2
2.1.1	Search Requirement	EQ	WB	1	2
2.1.2	Change Requirement	EI	WB	1	2
2.1.3	Delete Requirement	EI	WB	1	2
2.2.1	Rpt Project Errors By Detail	EO	VB	2	4
2.2.2	Rpt Error Profile	EO	WB	1	4
2.2.3	Rpt Error Percentage Detail	EO	WB	1	4
				총 가중치	21
				가중치당 기능점수	42
				복합인자	4.80
				조정 기능점수	98

TRANSACTION LIST

Requirement Rejection System Development of RRS 2 Functional Requirements
 Final - Scope Agreed Development Project

Identifier	Name	Type	Complexity	Multiplic	Function Points
Transactions					
1.1.1	Add Catalogue Item	EI	Low	1	2
1.1.2	Change Catalogue Item	EI	Low	1	3
1.1.3	Delete Catalogue Item	EI	Low	1	2
1.1.4	Enquire on Catalogue	EQ	High	1	2
1.1.5	CD Rpt Overnight Download	EO	High	1	4
1.2.1	Load Item Location	EI	Low	1	3
1.2.2	Add Item Location	EI	Low	1	2
1.2.3	Change Item Location	EI	Low	1	3
1.2.4	Delete Item Location	EI	Low	1	2
1.2.5	List Locations /Catalogue Item	EQ	High	1	3
1.3.1	Add Warehouse Description	EI	Low	1	2
1.3.2	Change Warehouse Description	EI	Low	1	2
1.3.3	Delete Warehouse Description	EI	Low	1	2
2.1.1	Search Requirement	EQ	Low	1	2
2.1.2	Change Requirement	EI	Low	1	2
2.1.3	Delete Requirement	EI	Low	1	2
2.2.1	Rpt Project Errors By Detail	EO	High	2	4
2.2.2	Rpt Error Profile	EO	Low	1	4
2.2.3	Rpt Error Percentage Detail	EO	Average	1	4
				Summed FP Function Points	42
				Adjusted Function Points	98
				Value Adjusted FP Index	2.33
				Adjusted Function Points	98

LISTE DER TRANSAKTIONEN

Requirement Rejection System Development of RRS 2 Functional Requirements
 Final - Scope Agreed Entwicklungsprojekt

Kennung	Funktionsname	Funktionsart	Komplexität	Multiplikator	Function Points
Transaktionen					
1.1.1	Add Catalogue Item	EI	Niedrig	1	2
1.1.2	Change Catalogue Item	EI	Niedrig	1	3
1.1.3	Delete Catalogue Item	EI	Niedrig	1	2
1.1.4	Enquire on Catalogue	EQ	Niedrig	1	2
1.1.5	CD Rpt Overnight Download	EO	Niedrig	1	4
1.2.1	Load Item Location	EI	Niedrig	1	3
1.2.2	Add Item Location	EI	Niedrig	1	2
1.2.3	Change Item Location	EI	Niedrig	1	3
1.2.4	Delete Item Location	EI	Niedrig	1	2
1.2.5	List Locations /Catalogue Item	EQ	Niedrig	1	3
1.3.1	Add Warehouse Description	EI	Niedrig	1	2
1.3.2	Change Warehouse Description	EI	Niedrig	1	2
1.3.3	Delete Warehouse Description	EI	Niedrig	1	2
2.1.1	Search Requirement	EQ	Niedrig	1	2
2.1.2	Change Requirement	EI	Niedrig	1	2
2.1.3	Delete Requirement	EI	Niedrig	1	2
2.2.1	Rpt Project Errors By Detail	EO	Niedrig	2	4
2.2.2	Rpt Error Profile	EO	Niedrig	1	4
2.2.3	Rpt Error Percentage Detail	EO	Durchschnitt	1	4
				Summierte FP-Funktion	42
				Unkorrigierte FP-Funktion	98
				Wertigkeits-Index	2.33
				korrigierte Funktion Points	98

User Guide, Context Sensitive Help, Tutorials, Getting Started Guide

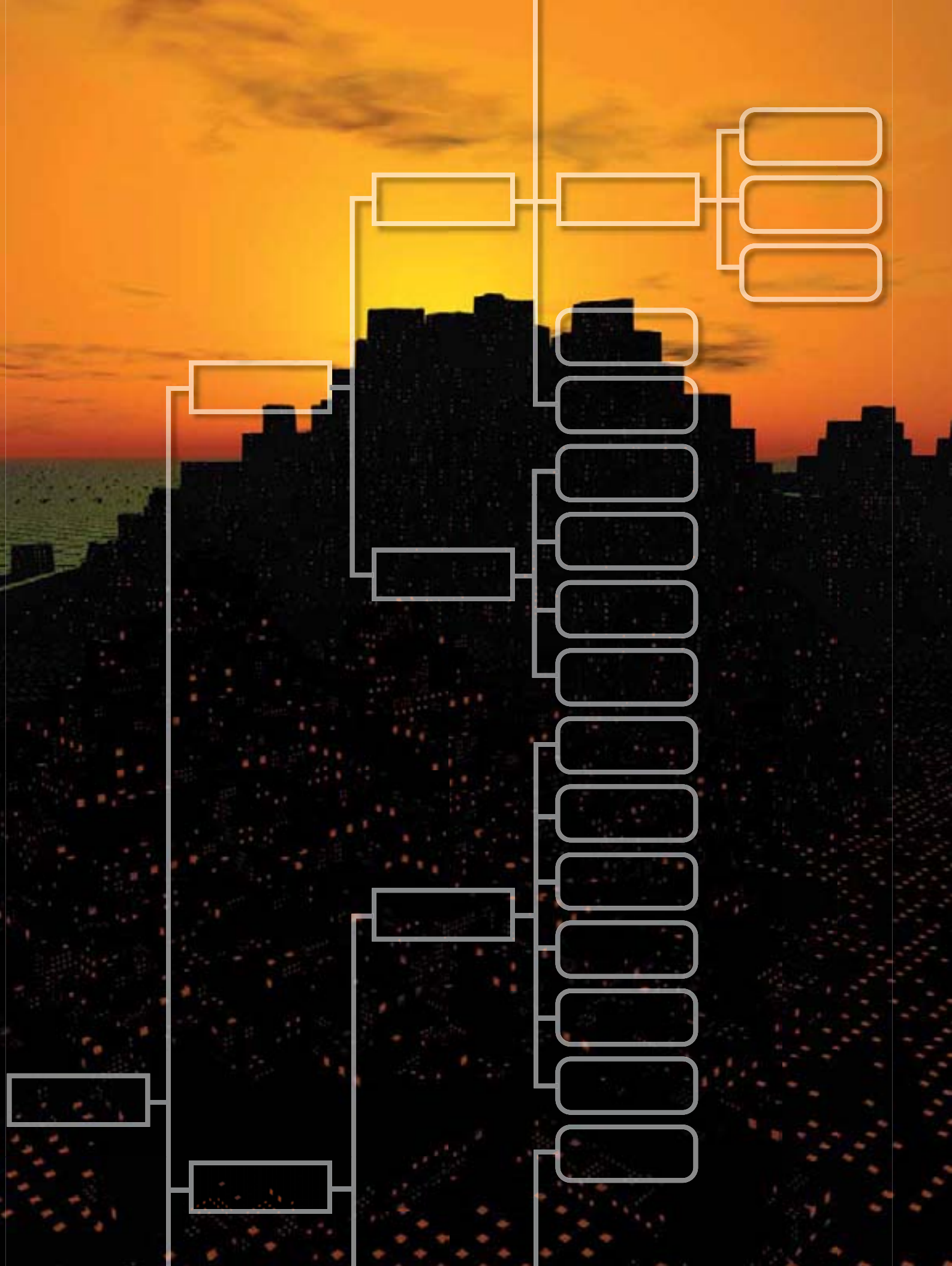
Comprehensive documentation at all levels supports the WORKBENCH user.

Tutorials are provided to take the function point counter through the counting process of the full software lifecycle. Tutorials are also very effective as a training tool to demonstrate the use and potential of Function Point WORKBENCH™ facilities in relation to actual counting situations.

Technical Requirements

The Function Point WORKBENCH™ requires:

- Any IBM or compatible PC with a Pentium II or higher processor
- Microsoft Windows (95, 98, ME, NT, 2000, XP or later)
- Windows compatible network
- 32 megabytes of RAM
- At least 32 megabytes of hard disk space





CHARISMATEK
SOFTWARE METRICS

175 Dorcas St, South Melbourne,
Victoria 3205, Australia

Phone: 61-(0)3-9696 1255

Fax: 61-(0)3-9696 1204

email: info@charismatek.com

Web: www.charismatek.com