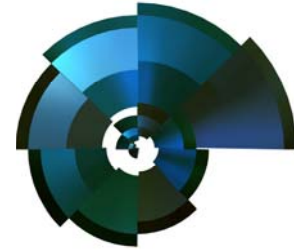




## Function Points – Don't Risk it with a Spreadsheet?



Functional Size Measurement (function point analysis) is recognised by the international IT Industry as the most effective method for measuring the size of the software product output from software development and maintenance activities.

The sizing task which requires identifying and categorising and assessing each process and data group within a software project, is a time consuming activity, requiring trained and experienced FP Analysts. The output from a function point counting activity is a list of processes and data groups with assigned values that need to be totalled.

In today's IT environment whenever we have a list of values requiring totalling, we reach for an Excel spreadsheet. Most organisations start by recording their function point counts in Excel as it appears to be the easiest start-up strategy. This is particularly so when compared to writing the business case for capital investment in a software product such as **SCOPE Project Sizing Software™**, that is built specifically to address all the recording, validation and reporting requirements of a function point counting program. So their function point counting is off to a flying start or is it???

### ***What are the problems with using MS Excel® for function point counting?***

Few decision makers are aware of the long term cost and high risk of the decision to use a spreadsheet solution such as:

- **Higher resource cost to the business** due to the unnecessary extra time consumed in manually recording, managing, validating and reporting counts
- **Hidden commercial and financial risk in using corrupted and erroneous spreadsheet data** as input into resource and schedule estimates for critical projects
- **Future resource cost of 'undoing' the decision** when the continued use of Excel becomes unsustainable, due to:
  - The overwhelming number of spreadsheets that need to be managed
  - Data which cannot be converted and imported, or
  - The unacceptably high overheads to convert/import such data
- **High risk of failure of their function point counting program** and the loss of the investment made in training and counting due to the frustration of the counters being unable to easily manage, reuse, audit or report counts

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This paper explores these hidden costs and risks in using spreadsheets that commercial tools such as **SCOPE** have sought to address. Whilst the initial investment in a commercial tool may appear to be an additional cost, most organisations find that the purchase of **SCOPE** software **pays for itself in the first months of counting in time saved. However, it may pay for itself in a single count** if just one process or data group is identified that would have otherwise been overlooked in a spreadsheet. Those missing 6FPs (\$6000) highlighted by **SCOPE** can be charged to a client or used to create a more accurate estimate thus avoiding a \$6000 project overspend or late delivery.

**SCOPE halves your ongoing counting costs and optimises your investment but most of all it helps prevent the commercial risk of using incorrect count data.**

**For example every error of 1 function point in a count will have a corresponding error in a project estimate of a minimum of \$1000.**

**SCOPE is the premium function point counting tool on the market today, its leading edge technology, architecture, features and functions are 10 years ahead of its <sup>1</sup>competitors.**

### **Some Statistics on Function points and Software Projects**

- The cost to deliver a function point of functionality by a project is \$1000 to \$1500 per function point
- A Function Point Analyst costs an organisation around \$50 per hour in salary
- The median size of an IT project is 300 function points
- The average counting rate of an FP analyst using **Excel** spreadsheets is 150 fps per day i.e. **@ \$2.60 a function point to count or \$780 to count a project**
- The average counting rate of an FP Analyst using **SCOPE** is 300 fps per day i.e. **@ \$1.33 a function point to count or \$399 to count a project**

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<sup>1</sup> See <http://www.totalmetrics.com/function-point-software/scope-project-sizing-software> for the gap analysis with Function Point Workbench.

## Cost and Risk Analysis Summary

SCOPE vs Excel® - Cost /Risk / Opportunity	Excel®	SCOPE	Benefits of SCOPE
<b>Avoids Excel's high risk</b> of counters overlooking functions causing project estimates to be wrong	☒	☑	<b>SCOPE's inbuilt functions reduce count errors to avoid risking</b> blowing budgets or delivering projects late
<b>Avoids Excel's High costs</b> for staff counting and auditing function point counts	☒	☑	<b>SCOPE saves time and costs</b> because it optimises and automatically reuses previous count data
<b>Avoids Excel's High risk</b> of count results being wrong due to corrupted Excel formulas	☒	☑	<b>SCOPE protects calculation formulas and has inherent validation checks</b> to enable you to trust the calculated results
<b>Avoids Excel's High costs</b> of counting by skilled experienced counters who need to remember the IFPUG rules	☒	☑	<b>SCOPE reduces counting costs</b> and makes counts more accurate by providing inbuilt rules and an expert system to guide count decisions
<b>Addresses Excel's low capability</b> to trace user requirements to count processes	☒	☑	<b>SCOPE optimises</b> auditability of counts and facilitates negotiation with business users by providing features to map user requirements to the count
<b>Avoids Excel's high overhead costs</b> to aggregate portfolio counts for management reporting	☒	☑	<b>SCOPE's single database with inbuilt portfolio reports</b> for reporting by Change Request, by project or across application portfolio
<b>Addresses Excels limited capability</b> to profile projects for input into management decision making	☒	☑	<b>SCOPE has inbuilt capability to flag and filter functionality</b> to assess different development opportunities for the project
<b>Addresses Excels inability</b> to manage the integrity of the portfolio of counts	☒	☑	<b>SCOPE has inbuilt functions to maintain the integrity</b> of your counts
<b>Addresses Excels inability</b> to ensure the security of the FP data	☒	☑	<b>SCOPE has inbuilt functions to maintain the security</b> of your counts
<b>Enables counts to be converted to another FP tool</b> in a standardised format unlike Excel which has no industry standardised format	☒	☑	<b>SCOPE has inbuilt functions to import counts from Excel</b> and older function point counting tools such as <i>Function Point Workbench™</i>

**See following section for a detailed breakdown of each of SCOPE's features built to address the limitations and constraints of the Excel solution.**

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# Detailed Risk Analysis

## of Using a Spreadsheet

### 1 SCOPE reduces the Risk of Projects being Underestimated

#### Background

Software functionality has multi-dimensional relationships between processes and the data they access. It is the complexity of these logical relationships that is measured and needs to be recorded when assigning function points.

#### MS Excel Counting

When using a spreadsheet the FP Analyst needs to interpret then transform the physical software into a 3 dimensional logical model then reduce it to a single dimensional list *every time* they 'count' a new project for an application. It is this 'interpretation - transformation' activity that requires the skill of the Analyst, and it typically consumes around 90% of the counting effort to find, and correctly assess the function. It is also the part of function point counting that is most open to variance since each Analyst will approach it with different information, different experience, different capability and a different modelling strategy. It is this 'interpretation' step that introduces the 'variations' seen by organisations in their project size results – typically around 25% when counters use spreadsheets for recording development counts and up to 35% for enhancement counts. Counts are typically undercounted by this amount; it is unusual in our experience to see counts 'over counted' unless the counter has just counted the physical software artefacts such as screens, which they often resort to when they are inexperienced or just too time constrained to find the logical functions.

#### SCOPE Counting

SCOPE software provides the capability for the FP Analyst to transform the softwares physical model into a 3 dimensional logical model that is stored in SCOPE. All the relationships between processes and data groups can be mapped and recorded down to every field used by a process. Once this structure is recorded, validated and approved for a project then it provides an ongoing baseline framework that can be built on by each subsequent project count so as to ensure ongoing consistency and accuracy of counts. The model only needs to be built once! Inter-count consistency in SCOPE is found to have <10% variance between counters using this methodology of building each count on the previously defined functional model.

#### SCOPE

##### Reduces Risk

***SCOPE alleviates the risk of under estimating projects***

- *Error of -35% in 300 fps = 100 fps, results in a project being
  - \$100,000 under estimated in the budget
  - 2 months late*
- *Error of 100 fps in a \$/fp based commercial contract corresponds to \$100,000 the supplier failed to be paid or the client pays in error*

##### Reduces Cost

***Reduce the cost of lost opportunity for other initiatives as the incorrectly counted project may not have been approved if its real costs had been known; late delivery may also result in loss of market share!***

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## 2 SCOPE reduces Staff Costs for Counting

### Background

In order to leverage project metrics for process improvement or to manage contracts, most organisations function point count all projects and the impact of each project on each of the applications it needs to change. This very quickly mounts up to hundreds of function point counts.

### MS Excel Counting

When Applications are impacted by multiple projects very soon the number of spreadsheets generated per application becomes difficult to track and the capability to reuse and leverage from a previous count's results becomes only possible by searching through hundreds of spreadsheets to find when a particular Process or Data Group was last counted and its FP result. The search is compounded when the Analyst is not sure of the 'name of the function' that was recorded in the count (e.g. unsure if the process to modify the customers contact information was called - Modify Customer Details?, Maintain Customer?, Change Client Information?, Update Client?). Reuse is particularly difficult for large projects where the count has hundreds of Processes and Data Groups. Rather than spend the time reusing past results to ensure inter-count accuracy and consistency, most FP Analysts just start again and every time spend up to 50% - 90% more effort on counting than if they could leverage from previous results.

### SCOPE Counting

SCOPE's logical model of the software provides a catalogued framework of all the software's functionality that has been previously counted so that it can be quickly easily identified and reused. Even if the counter is not sure how the function was named, its position in the framework provides an automatic index to finding it again. In addition to the logical model, SCOPE provides the capacity to cross-reference the Logical Function to the physical software entities (e.g. Logical files can be mapped to their corresponding physical tables; Processes can be mapped to one or more of their programs or screens, or specifications). So that when a change is identified by the programmers in the physical entity, the corresponding Logical entity can be easily traced in the count. Not only does this make counts more accurate but it also ensures that every logical function that is impacted by the physical change is included as part of the assessment of project size. SCOPE also allows full descriptions of all processes and files to be recorded so there is no mistake as to which one needs to be changed. SCOPE's sophisticated search functionality provides additional assistance. The Analyst counting an Enhancement project can therefore use previous counts as a framework on which to 'mark up' the added, changed and deleted functionality for their current count. Processes and Logical files that are part of the new project can be identified in seconds and recorded accurately in the Project scope.

### **SCOPE**

#### **Reduces Cost**

#### ***SCOPE saves at least 50% counting time for Enhancement projects***

- *300 fps project = saves 4 hours per count = \$400 per count*
- *~10 counts pays for SCOPE*

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### 3 SCOPE reduces Risk of using corrupted data

#### Background

Wherever possible FP Analysts usually try and reuse previous counts stored in previous spreadsheets as a template to save time in recording the count 'documentation' information and count details.

#### MS Excel Counting

If the Analyst is able to find a spreadsheet to 'reuse' the fields entered by a previous count, this usually requires manipulation of the spreadsheet deleting and inserting rows to only include the processes and data impacted by the current project or deleting all previously used information. Typically the formulas have been set to derive totals from a pre-defined range of cells, these formulas are often corrupted when the analyst inserts new rows outside this range or deletes rows or columns or clears fields used for validation or providing static values. In a recent audit of Excel counts from a Global Outsourcing Organisation it was found that in every count the total FPs calculated by Excel were different than the actual manually counted project size (in once case 300% lower). In this case, the formula for summing the totals was only totalling 30% of the rows in the count. In another count rows had been 'hidden' unknown to the FP Analyst and these 'hidden' rows were being incorrectly included in the project size. When the project is large, or the count is completed quickly, the errors in calculations are frequently overlooked by the analyst who relies on Excel to calculate correctly. Other issues occur when an Analyst accidentally reuses a count that was later corrected and therefore incorporating the previous counting errors into the latest count.

#### SCOPE Counting

SCOPE was specially built to optimise count reuse but at the same time all its formulas are *protected* and it has inbuilt expertise to 'check' counts. E.g. SCOPE will automatically derive complexity of functions based on the number of FTRs and Dets linked and automatically derive whether a file is Internal or External based on how the processes access it. The only errors that can be inadvertently introduced into SCOPE counts are human errors introduced by the FP Analyst failing to correctly record if a Process or Data Group was impacted by the requirements of a project.

#### **SCOPE**

#### **Reduces Risk and Cost**

***SCOPE avoids count errors due to spreadsheet formula corruption which based on our experience result in errors from 5% to 300% in the count result for Enhancement projects***

- *300 fps project and a 50% error = \$150,000 under estimated or over estimated in a project or failed to be paid to supplier or the supplier was overpaid by this amount*

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## 4 SCOPE reduces dependence on highly Skilled Counters

### MS Excel Counting

Organisations typically custom build or use a 'free' industry spreadsheet for recording their FP counts. The design of these worksheets usually constrains the FP Analyst to record every type of function in the same list (sheet). That is, the count will have Inputs, Outputs, Enquiries, Internal and External Files all counted within the same spreadsheet using the same columns. Since the rules for assigning complexity and the FPs are different for each type of function, it is almost impossible to incorporate all these complex rules into the formula logic of a single cell. Therefore much of the IFPUG function point rule 'validation' is left to the Analyst to do manually from memory.

Unfortunately for novices and people who count infrequently this results in many functions being assigned invalid FP values for their type and complexity and Excel has no means of identifying and flagging the errors. E.g. High Complexity External Output = 6fps

Few spreadsheet solutions provide any online HELP for users who need to know the correct way of completing the spreadsheet to avoid corrupting the data. When spreadsheets formulas are corrected or bugs in the sheet are fixed, there is rarely any version control to ensure that counters only use the latest corrected version of a spreadsheet for their count templates.

### SCOPE Counting

SCOPE was specifically built to optimise counting speed by automatically applying all the IFPUG calculation rules such that an FP Analyst counting an Enhancement only needs to know information such as "a Process is changed by a project and that it now accesses another Data Group". The FP Analysts just need to link the existing Process to the new Data Group and SCOPE will automatically update the complexity and size accordingly. The counters do not have to know the appropriate IFPUG ranges for complexity nor do they need to know what other files are accessed by that process, since that information is automatically retained from previous counts. SCOPE also provides an inbuilt expert system (FP Decision Maker™) so if the FP Analysts are not sure how to determine if the function is an elementary process or if they are unsure of what type of elementary process, then FP Decision Maker will walk them through the IFPUG CPM logic for their decision and give them an expert opinion as to the correct result. SCOPE's inbuilt Function Point Counting expertise allows organisations to use less experienced FP Analysts and achieve greater inter-counter consistency and accuracy. The FP Analysts also have the capability to document their counts so that anyone checking them can ascertain how they made their counting decision. These decisions are retained with the Process or Data Group over its lifetime in the software so all future counts can leverage from past counting experience.

SCOPE has a very comprehensive context sensitive, searchable HELP inbuilt along with over 15 online Tutorials for ensuring it is used appropriately.

In addition, the traceability of all counting decisions reduces the auditing time of counts by about 80%. SCOPE provides additional validity checks to assist auditing in its reporting by comparing the count profiles to industry profiles which automatically highlights potential over-counting or undercounting issues. SCOPE's enables multi-dimensional cross-referencing of count processes and data groups to the requirements specifications, allowing the auditor to easily check the completeness of coverage of the Users Requirements within the count.

### **SCOPE**

#### **Reduces Costs**

***SCOPE saves costs of only using very experienced counters and 'teaches' novice counters the correct counting rules so they make the correct count decisions their counts are more accurate and easier to audit.***

***SCOPE saves costs of audits by automatically reporting where counts vary from industry profiles and providing sophisticated traceability to count decisions.***

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## 5 SCOPE aids traceability of business Requirements

### Background

Function point counts are increasingly being used as a basis for contract management for outsourcing performance measures and for scope and cost management of software projects. Industry data shows that a typical cost to deliver a function point of software is between \$1000 and \$1500 per function point. Therefore when suppliers are being paid by the function point or developers are estimating replacement costs using function points, then every function point matters.

### MS Excel Counting

Problems with spreadsheets arise since they do not have a 'tracking' capability to record variations in requirements over the duration of a project as a means of providing an audit trail of function points documenting when and where changes occurred in the count and the reasons for the change. Typically, prior to payment to the supplier, the client requests an audit of the counts for a project to ensure that all project changes have been appropriately recorded.

Since Function Point counts are becoming increasingly the basis for contract management, then auditability and traceability of count decisions and cross-referencing to project change requests is of critical importance. Unfortunately due to the limited notation capability within Excel and each process in the count being restricted to a row, there is only very limited capacity to record:

- Exactly which data groups are used by each process and the type of access
- Count decisions regarding how and why a process was counted
- What changes were made to the count, when, by whom and for what reason

### SCOPE Counting

SCOPE was specifically built to provide traceability and auditability of counts over the lifetime of a project. It has unique tracking capability that can report when a change was made to the project scope and the nature of those changes. Individual Change Requests can be overlaid on the same project framework as 'layered tracking' that can be approved and left in the count or selectively removed with the 'click of a mouse button'.

### **SCOPE**

#### **Reduces Risk and Costs**

***SCOPE reduces risk, saves auditing costs and ensures correct supplier payments by providing features enabling:***

- ***All project changes to be recorded so that they can be charged accordingly***
- ***Auditors to quickly assess whether project requirements changes have been applied to the count results***



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## 6 SCOPE reduces Resource Costs for producing Reports

### Background

Organisations' software programs are no longer 'stand-alone' applications, but have multiple interfaces with multiple applications. The ramifications of this inter-connectivity is that a single business operation will be reflected in a 'chain of events' that ripples through multiple applications. The same ripple-effect occurs when a business operation needs to be modified, typically every application that uses the data needs to be consequently modified. So within any Release of an Application there can be as many as 15 different business initiatives (projects) that impact the application with one or many change requests. This results in a multi-dimensional many-to-many relationship between business projects, applications and the change requests that need to be counted.

Management typically need to aggregate 'size' in a variety of ways, i.e.:

- How big is this Release of the Application? - for input into productivity analysis and Release estimates (need to aggregate the size of all Change Requests, for all different Projects that impact the application)
- How big is this project? - for input into the business case or productivity figures (need to aggregate the size of all Change Requests for the project across all Applications)
- How much impact does this Project have on this Application? - for input into the decision as to whether or not to proceed (need to aggregate the size of just the CRs for this project for this application)

### MS Excel Counting

Spreadsheets that record all the processes impacted by a project for the different Applications in a single spreadsheet are not able to accommodate these different reporting needs, whilst the information can be extracted manually from dozens of workbooks it can be very time consuming for every report. Whilst Excel has a 'linking' capability between workbooks to aggregate data, this becomes unsustainable and easily corrupted particularly once there are more than 100 workbooks (counts) linked. The only alternative is for the count results to be manually extracted at the completion of a count. However this is also error prone if the count is subsequently audited and corrected the reported productivity figures are rarely revisited.

### SCOPE Counting

SCOPE was designed to model these multi-dimensional relationships between Projects, Applications and Change Requests so that the results of the count sizes can be aggregated and reported via each type of combination. All the FP Analyst needs to do is assign a Project to a Change Request and the Change Request to an Application and SCOPE does the rest. SCOPE has over 40 different inbuilt management reports at all levels of granularity from Application Portfolio reporting to Application, Release, Project and Change Request Level reporting. SCOPE can export the Reports to HTML , MS WORD or MS Excel formats for inclusion in other Master Reports.

### **SCOPE**

#### **Reduces Costs**

- ***SCOPE reduces Costs of Management Reporting by automatically providing reporting by Project, Application, Release, Count Session aggregated any way chosen by the user***

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## 7 SCOPE optimises your Organisations FP investment

### Background

Function point counts can be used for many different purposes beyond just using them as input into estimation and productivity performance rates. These other uses include<sup>2</sup>:

- Mapping package functionality to user requirements to determine 'product' fit
- Assigning attributes to software functionality to distinguish between high priority requirements and those that can wait and sizing the different project scopes when negotiating project scope with the user
- Recording the extent of Project Rework to justify process improvement initiatives etc.

### MS Excel Counting

Spreadsheets do not enable organisations to leverage from the effort spent on counting to gain the full benefits of quantitative analysis of their software applications and projects for management decision making.

### SCOPE Counting

SCOPE was designed be able to 'flag' functionality to be profiled for reporting. Its method of assigning attributes is completely customisable enabling project managers to interactively determine the proportion of their software project that satisfies; one or all of the attribute combinations. For example if the count was set up to have the following list of attributes , and they are assigned to Processes and Data Groups, then they can be selectively reported using the Boolean selection criteria of AND, OR, NOT:

- Needs to be configured
- Needs to be built from scratch
- Can be implemented directly from a package
- Is high priority to be implemented in this release
- Is built in .NET
- Has incomplete requirements etc etc etc.

### **SCOPE**

#### **Provides Quantitative Information for Decision Making**

- ***SCOPE takes function point counts to the next level by providing a functional model that is quantified such that it can be profiled in seconds to answer key business questions***

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<sup>2</sup> Also see : <http://www.totalmetrics.com/function-point-resources/downloads/Function-Points-Uses-Benefits.pdf>

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## 8 SCOPE maintains the Integrity of your count Repository

### Background

Most organisations start counting Enhancement projects for their existing applications and once they find that knowing the functional size of their projects provides significant insight into their development environment they then want to move to the next level of metrics reporting of using the baseline size of their implemented application in their support metrics.

### MS Excel Counting

MS Excel has no capability of taking a project count and automatically applying the changes, adding in new functions or removing obsolete functions to update a previous baseline count. Therefore most organisations are unable to maintain their baseline count with their ongoing project counts so as to fully optimise their investment in function point counts

Whilst they may initially complete the baseline sizing of their application problems occur when each Enhancement Project is counted and they need to 'manually' apply the new additions, changes and deletions to the baseline in order to keep the baseline size current. This significantly increases the counting effort. To avoid this time-consuming overhead of manually maintaining the baseline count details, most organisations resort to just adding and subtracting from the 'baseline' total number. The consequence is that their investment in the baseline count is wasted as it no longer reflects the functionality of the application for use other business decisions e.g. re-development planning, support contracts etc.

### SCOPE Counting

SCOPE was designed to automatically manage the ongoing maintenance of the baseline count using the project counts recorded against that application. I.e. Whenever a project is counted it is recorded against the framework of the current baseline. Many projects can be counted on the same baseline and then when the User decides to 'Update the Baseline' they can selectively apply which projects will be used. SCOPE will automatically 'add' the new Processes and Data Groups, make changes to the existing ones and delete the any functions that have been removed by the projects. This "building of the baseline" allows the user to start using SCOPE to just record Enhancement counts and SCOPE will automatically build the baseline over time.

SCOPE automatically maintains integrity of baselines when projects are cancelled or postponed.

SCOPE's flexibility allows it to respond to changing project implementation decisions by being able to record the Project Impact on an Application AND be able to decide to not apply it, or to remove it or to hold it over to be applied again at a later date when the project was approved or restarted.

### **SCOPE**

#### **Optimises your FP Investment**

- ***SCOPE frees up resources currently used for FP count management and optimises your investment in your baseline counts by automatically maintaining them with every project***
- ***If you only count Enhancement projects and have not built a baseline then SCOPE will automatically 'build' your baseline using information from each project thus optimising your investment in function points***

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## 9 SCOPE protects the security of your FP Investment

### Background

Most organisations have a high investment in training and valuable resource time, tied up in their function point counts, over a year this can quickly add up to hundreds of thousands of dollars.

### MS Excel Counting

Excel has no configuration management capability to ensure that:

- Counts are not 'lost' or misplaced, when they are recorded on standalone notebooks or saved to personal computer hard-drives.
- FP Analysts only use the latest validated count for reporting and when reusing a count as a template they don't pick up an earlier version which has been subsequently corrected

To handle the complexity of managing thousands of spreadsheets for hundreds of applications organisations typically need to assign a part-time resource just to manage the security of their counts to avoid them being overwritten or lost, but accidents still occur. This resource can cost them up to \$50,000 annually. However after the first year of counting, many organisations just 'give up' their function point counting activity as the overhead becomes too high to justify the returns.

### SCOPE Counting

SCOPE was designed to manage the security and configuration control of counts such that an organizations function point counts can be stored in a central repository and 'checked in' and 'checked out' by the repository manager. When concurrent counts are applied to the same baseline SCOPE has a unique capability of applying the counts in 'layers' such that they can be reported independently or can be merged so that the latest count information updates the baseline count rather than overwriting a previous count.

### **SCOPE**

#### **Reduces Risk**

- ***SCOPE has all the inbuilt features to manage the security and integrity of your counts in a central repository.***
- ***Counts performed concurrently on the same application can be 'merged' with out risking overwriting other count information.***

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## 10 SCOPE is an investment in the future of an FP Program

### Background

In our experience of 20 years implementing measurement programs across the world, eighty percent of them fail to exist beyond 2 years. Failure to succeed, is for many reasons but one of the major ones is that organisations fail to plan their investment and ensure that their strategy is scalable and that they have invested in the right training and tools to ensure the ongoing success.

### MS Excel Counting

FPA Excel spreadsheets used by different organisations tend to have different layouts and content making it impossible for proprietary tools to automate the import of data at some time in the future when the organisation decides to take the next step and invest in a tool. Most of the current FPA specialist tools have inbuilt functions to import from a spreadsheet but the format of the spreadsheet is predefined. Therefore if an organisation decides to move to a proprietary tool there are often significant costs in transforming their own FPA spreadsheet data to a format that can be imported. In addition all the current tools only allow one spreadsheet at a time to be imported so even after the transformation, it is a significantly time intensive effort to manually import hundreds of counts and then check that they have imported correctly. Often valuable information is lost because it is stored as a concatenated text string rather than as a separate cell and the importing software is unable to decode it. It typically consumes around 1 hour per count per application to transform and import an Excel count into a tool such as **SCOPE**. This may translate to hundreds of hours (100 hours @ \$50/hr = \$5,000) which could have been avoided if the tool had been purchased at the start of the function point counting activity.

### SCOPE Counting

**SCOPE** has functions to import spreadsheets from **SCOPE**'s spreadsheet template. Total Metrics is available to provide support to organisations requiring transforming their existing data into **SCOPE**. **SCOPE** is the only specially designed function point counting tool that also has the capability to import all count data from older previous generation function point counting tools such as the Function Point WORKBENCH™

### **SCOPE**

#### **Protects your investment in FPs**

- *SCOPE can import your existing spreadsheet counts so you can leverage from your past counting effort*
- *SCOPE optimises the chance of the success of your metrics program*

**SCOPE when purchased at the start of your FP counting activities pays for itself within the first few months and then saves you money for every future count and audit all the while protecting your FP investment by avoiding the risks inherent in using a spreadsheet.**

**Find out more about SCOPE at: [WWW.TotalMetrics.com](http://WWW.TotalMetrics.com)**