
Abstract: This article describes and supports the use of Gencel, a tool that allows the user to create specifications that describe the structure of the initial spreadsheet. For EUSES news, information about related events, and publications from 2003, 2004 and 2005.

URL: http://eecs.oregonstate.edu/EUSES/


Abstract: The paper . . . describes (1) several spatial-analysis algorithms for header inference, (2) a framework that facilitates the integration of different algorithms, and (3) the implementation of the system.” The system is fully integrated into Excel. For EUSES news, information about related events, and publications from 2003, 2004 and 2005.

URL: http://eecs.oregonstate.edu/EUSES/


Keywords: spreadsheet, spreadsheet error

Abstract: "We describe a methodology for detecting errors in spreadsheets, using the notion of units as our basic elements of checking. We define the concept of a header and discuss two types of relationships between headers, namely is-a and has-a relationships. With these, we develop a set of rules to assign units to cells in the spreadsheet. We check for errors by ensuring that every cell has a well-formed unit. We describe an implementation of the system that allows the user to check Microsoft Excel spreadsheets. We have run our system on practical examples, and even found errors in published spreadsheets."


Abstract: Provides basics on Excel for intermediates.

URL: http://bl-bus-dot-net3.ads.iu.edu/albrightbooks and look for link to Excel Tutorial Contact: http://www.kelley.iu.edu/ODT/faculty_staff/albright.html


Keywords: system design, spreadsheet, education

Abstract: This paper describes the application of structured design to spreadsheets. Spreadsheet construction projects can then be used in an Accounting Information Systems course to teach system design principles. The advantages of this approach are: (1) that systems with sufficient complexity to illustrate the principles and techniques of good design can be constructed in a few weeks, (2) the spreadsheet software neither forces good design not prohibits it, thus requiring good design to be built in by conscious choice, and (3) it is an active, hands on approach which greatly facilitates learning.

Abstract: The author encourages a deliberate, measured approach to software development and testing and states: “Testing is the only discipline in software development that has really stepped up to the plate and acknowledges what the job really is – to find out what we don’t know we don’t know.”

Ayalew, Yirsaw, Markus Clermont, and Roland T. Mittermier. "Detecting Errors in Spreadsheets." 12

Abstract: This paper presents two complementary strategies for identifying errors in spreadsheet programs. The strategies presented are grounded on the assumption that spreadsheets are software, albeit of a different nature than conventional procedural software. Correspondingly, strategies for identifying errors have to take the inherent properties of spreadsheets as much into account as they have to recognize that the conceptual models of 'spreadsheet programmers' differ from the conceptual models of conventional programmers.


Abstract: This paper briefly examines the history of the spreadsheet and presents a survey of major books, papers and conference presentations over the past 25 years, all in the area of educational applications of spreadsheets.

URL: http://www.sie.bond.edu.au


Keywords: spreadsheets, visualization, end user programming

Abstract: "Spreadsheets are an extremely common form of end-user programming used for many applications from student marks to accounting for global multinationals. Ways of studying the structure of a spreadsheet itself is normally constrained to the tools provided in the spreadsheet software. We wanted to explore ways to use new visualizations for spreadsheets, and this paper documents our approach."


Abstract: This paper considers the problems of mechanical production and the challenges of translation of a problem to spreadsheet representation and includes references. “We need to help future spreadsheet developers to appreciate all of the literal and interpretive problems, social, political and technical, that influence the development of spreadsheets . . .”

URL: www.sysmod.com/eusprig02.htm and/or Contact: David.Banks@unisa.edu.au


Abstract: This paper “takes a first step toward building a foundation for investigating this issue by surveying the gender difference literature from five domains. The authors present taxonomy of this literature and derive a number of specific issues for each element of the taxonomy (stated as hypotheses).” For EUSES news, information about related events, and publications from 2003, 2004 and 2005.

URL: http://eecs.oregonstate.edu/EUSES/


Abstract: “. . . (O)ver-confidence is perhaps the most serious aspect of spreadsheet errors . . .” The
authors set forth an "appropriate response" to the risks posed by the possibility of spreadsheet errors that includes developing and following good practice modeling protocols and independent reviews by someone equipped to do so.

Abstract: This is a PowerPoint outline presentation of Proctor and Gamble’s class in spreadsheet design. This program is being taught worldwide and provides an excellent example of the state of the art among top global companies.

Keywords: end-user computing, errors, auditing tools
Abstract: Very little is known about the process by which end-user developers detect and correct spreadsheet errors. Any research pertaining to the development of spreadsheet testing methodologies or auditing tools would benefit from information on how end-users perform the debugging process in practice. Thirteen industry-based professionals and thirty-four accounting and finance students took part in a current ongoing experiment designed to record and analyse end user behaviour in spreadsheet error detection and correction. Professionals significantly outperformed students in correcting certain errors types. Time-based cell activity analysis showed that a strong correlation exists between the percentage of cells inspected and the number of errors corrected.

Abstract: A presentation on how innovations in the spreadsheet paradigm can be designed and assessed in the light of such critical attributes as organizing data into rows and columns. For EUSES news, information about related events, and publications from 2003, 2004 and 2005
URL: http://eecs.oregonstate.edu/EUSES/

Abstract: The technique, based in part on Cognitive Dimensions and Attention Investment, features the credibility that comes from being based on the real commercial environment of interest, and from working with real users of the environment. For EUSES news, information about related events, and publications from 2003, 2004 and 2005
URL: http://eecs.oregonstate.edu/EUSES/

Abstract: This article covers the basics of models and model building, the model development life cycle, building analytical models, building intelligent models and model management.
URL: http://www.owen.vanderbilt.edu/vanderbilt/About/faculty-research/f_profile.cfm?id=84

Keywords: spreadsheets, teaching, errors
Abstract: This paper identified six teaching methods and discussed their advantages and disadvantages. It also proposed a three-stage spreadsheet teaching model that emphasises teaching the procedural and conceptual aspects of the software. The model provides a useful guide for instructors and it should help to address the concern regarding frequent occurrence of spreadsheet errors.
*Abstract*: This article provides some tools and techniques to help avoid incorrect cells and worksheets with errors.

*Abstract*: This list contains samples of properties that one can use to review a spreadsheet. Use it as a starting point to develop a checklist suitable for an organization

*Abstract*: Nine experienced users of electronic spreadsheets each created three spreadsheets. Although participants were quite confident that their spreadsheets were accurate, 44% of the spreadsheets contained user-generated programming errors. With regard to the spreadsheet creation process, we found that experienced spreadsheet users spend a large percentage of their time using the cursor keys, primarily for the purpose of moving the cursor around the spreadsheet. Users did not spend much time in a separate, systematic debugging stage. Participants spent 21% of their time pausing, presumably reading and/or thinking, prior to the initial keystrokes of spreadsheet creation episodes.

*Keywords*: decision support system, linear programming, raw material supply optimization, MS Excel
*Abstract*: Wood paneling manufacturers face a number of complex decisions when trying to allocate production resources and combine various raw materials to meet production goals. This paper describes an MS-Excel-based decision support system for wood panel manufacturing. The system is easy to use and maintain yet gives shop floor personnel access to powerful optimization capabilities useful for fine-tuning production processes in the face of changing supply and price situations.
*URL*: www/elsevier.com/locate/dsw

*Abstract*: "Directly supporting (end) users is software development activities beyond the programming stage – while at the same time taking their differences in background, motivation, and interests into account – is the essence of the end-user software engineering vision."

*Abstract*: Report on empirical studies on end-user software engineering.
*URL*: For EUSES news, see: http://eeecs.oregonstate.edu/EUSES/ Or See: http://www.engr.oregonstate.edu/~burnett/TR2000/empirical.html

*Abstract*: This paper is divided into the following sections: Spreadsheet Computation; The Treatment Center (Alternatives); If You Must Persist; Specific Problems with Excel; and Additional Links

Abstract: One of the problems reported by researchers and auditors in the field of spreadsheet risks is that of getting and keeping management's attention to the problem. Since 1996, the Information Systems Audit & Control Foundation and the IT Governance Institute have published CobiT® which brings mainstream IT control issues into the corporate governance arena. This paper illustrates how spreadsheet risk and control issues can be mapped onto the CobiT framework and thus brought to managers’ attention in a familiar format.

URL: See: http://www.gre.ac.uk/~cd02/EUSPRIG/ and/or contact: "Ray Butler"
ray.butler@dial.pipex.com


URL: PDF file of Powerpoint presentation available: http://www.isys.uni-klu.ac.at/ISYS/eusprig04/11_presentations/Tutorial_Butler.pdf


Keywords: spreadsheet, SpACE, auditing, risk assessment

Abstract: Errors in spreadsheet applications and models are alarmingly common. Faced with this body of evidence, the auditor can be faced with a huge task - the temptation may be to launch code inspections for every spreadsheet in an organisation. This can be very expensive and time-consuming. This paper describes risk assessment based on the "SpACE" audit methodology used by H. M. Customs & Excise's tax inspectors. This allows the auditor to target resources on the spreadsheet posing the highest risk of error, and justify the deployment of those resources to manager and clients. Since the opposite of audit risk is audit assurance, the paper also offers an overview of some elements of good practice in the use of spreadsheets in business.


Abstract: A guide to using macros. Modeling guidelines follow an outline of: Problem Conceptualization, Model Design, Model Construction in the Spreadsheet, Validation and Verification, Documentation, and Model Implementation and Use


Keywords: training program, key process area at level 3, guidelines, software projects

Abstract: This set of training guidelines focuses on issues to be addressed by the training program of a software organization comprised of multiple software projects. While much of the content of the guidelines is equally applicable to training plans for individual projects, this document presumes coordinated function training across software projects.


Keywords: Artificial intelligence, genetic algorithms, scheduling, spreadsheets

Abstract: In recent years, the use of pre-printed advertising inserts in newspapers has increased drastically. This paper presents a spreadsheet model developed to represent the pre-printed insert scheduling problem in a case study of an actual medium-size newspaper company. the performance of two commercial genetic algorithm (GA) optimizers is compared on this problem.
Computational testing shows the GAs develop schedules that substantially reduce the post-press production department's insert processing time.


**Keywords**: spreadsheets, errors, error control, managerial decision making, decision support systems, end user computing

**Abstract**: There is consensus in the literature that spreadsheets are both ubiquitous and error-prone, but little direct evidence concerning whether spreadsheet errors frequently lead to bad decision making. We interviewed 45 executives and senior managers/analysts in the private, public, and non-profit sectors about their experiences with spreadsheet errors and quality control procedures. Differences across sectors do not seem pronounced. Almost all respondents report that spreadsheet errors are common. Most can report instances in which errors directly led to losses or bad decisions, but opinions differ as to whether the consequences of spreadsheet errors are severe. Error checking and quality control procedures are in most cases informal. A significant minority of respondents believe such ad hoc processes are sufficient because the "human in the loop" can detect any gross errors. Others thought more formal spreadsheet quality control processes could be beneficial.


**Abstract**: This is one of a series of guides for research and support staff involved in natural resources projects. There is a section on Excel Add-ins, including pivot tables and a series of statistical techniques.

**URL**: http://www.rdg.ac.uk/ssc/publications/guides/topxls.html


**Abstract**: This paper documents the formation of the European Spreadsheet Risks Interest Group and outlines some of the research undertaken and reported upon by people interested in EuSpRIG publications.

**URL**: http://www.isys.uni-klu.ac.at/ISYS/eusprig04/11_presentations/


**Abstract**: This paper underscores the point that, to date, only one technique, cell-by-cell code inspection, has been effective in reducing errors. It also recommends and encourages a 'research ethos' and identifies a potential role for EuSpRIG in the development of syllabi in professional studies, in curriculum development and in the creation and promotion of spreadsheet building and auditing standards.

**URL**: www.sysmod.com/eusprig02.htm


**Abstract**: Recent research has highlighted the high incidence of errors in spreadsheet models used in industry. In an attempt to reduce the incidence of such errors, a teaching approach has been devised, which aids students to reduce their likelihood of making common errors during development. The approach comprises of spreadsheet checking methods based on the commonly accepted educational paradigms of peer assessment and self-assessment. However, these paradigms are here based upon practical techniques commonly used by the internal audit function such as peer audit and control and risk self-assessment. The result of this symbiosis between educational assessment and professional audit is a method that educates students in a set
of structured, transferable skills for spreadsheet error-checking which are useful for increasing error-awareness in the classroom and for reducing business risk in the workplace.

URL: http://www.gre.ac.uk/~cd02/EUSPRIG/


**Keywords:** spreadsheet error detection, visualization tool, auditing strategy

**Abstract:** A suite of new auditing visualization tools have been designed and implemented in Visual Basic for Application (VBA), as an add-in module for easy inclusion in any Excel 97 or Excel 2000 installation. Furthermore, four strategies are proposed for detecting errors. These range from an overview strategy to identify logical components of the spreadsheet model, to specific strategies targeted at specific types of errors.


**Keywords:** end-user computing, spreadsheets, spreadsheet proficiency, software packages

**Abstract:** This paper explores the use of spreadsheets within business organizations. A survey was carried out to investigate the relationships among tasks, spreadsheet proficiency, usage and satisfaction. The results suggested that the spreadsheet proficiency can have a greater impact on the tasks than the task can have on the spreadsheet proficiency. It was also found that spreadsheet users often do not use many of the commonly available spreadsheet features, and they do not appear inclined to use other software packages for their tasks, even if these packages might be more suitable. The proficiency of the spreadsheet users was not found to be related to the importance of the decisions being taken as a result of the spreadsheet analyses.


**Abstract:** An approach “to spreadsheet auditing . . . based on the visualization of the formula structure . . . Auditors are supported by visualization of the pattern of recurring blocks of similar cells . . . and by finding disruptions in the regular pattern.”


**Abstract:** This paper provides the results of an audit of a very large spreadsheet in an industrial context. The authors used an auditing tool and discovered an error rate of about 3% and concluded that insufficient documentation was the main cause of errors. “Better understanding can be gained either by decreasing the overall complexity of the spreadsheet with design restrictions, by giving more comprehensive description of the spreadsheet, or by visualizing the logical structure.”

URL: www.sysmod.com/eusprig02.htm


**Keywords:** spreadsheet, design, optimization, education

**Abstract:** Electronic spreadsheets are the most common software tool managers use to analyze data and model quantitative problems. Increasingly, these software packages are being used in introductory OR/MS courses to introduce students to a variety of quantitative tools. This paper offers a critique of this approach and provides some guidelines . . . to be more helpful in creating effective models for optimization problems.


**Abstract:** This working paper reviewed 57 papers relating to spreadsheet-based DDS. The last two pages provide an outline of classes and groups of research variables: 1. Spreadsheet System Characteristics, 2. Environmental Characteristics, and 3. Process Variables.

**Keywords:** spreadsheet model, risk, audit, review, error, integrity

**Abstract:** Spreadsheet audit and review procedures are an essential part of almost all City of London financial transactions. Structured processes are used to discover errors in large financial spreadsheets underpinning major transactions of all types. Serious errors are routinely found and are fed back to model development teams generally under conditions of extreme time urgency. Corrected models form the essence of the completed transaction and firms undertaking model audit and review expose themselves to significant financial liability in the event of any remaining significant error. It is noteworthy that in the United Kingdom, the management of spreadsheet error is almost unheard of outside the City of London despite the commercial ubiquity of the spreadsheet.


**Keywords:** auditing, spreadsheets, errors

**Abstract:** The Tasmanian State Institute of Technology decided to investigate users of the Lotus 1-2-3 spreadsheet in industry, academia, and the accounting profession with the objectives of determining the accuracy of spreadsheets being used in 'live' applications and the quality of the controls applied to them. The results of the study are provided.


**Keywords:** spreadsheet, spreadsheet auditing

**Abstract:** Few tools are available for understanding and debugging spreadsheets, but they are needed because spreadsheets are being used for large, important business applications. The key to understanding spreadsheets is to clarify the data dependencies among cells. We developed and evaluated two interactive tools which aid in investigating data dependencies, an on-line flowchart-like diagram and a tool which represents dependencies by drawing arrows among cells on the display of the spreadsheet. Users found both tools helpful, but preferred the arrow tool.


**Abstract:** The author underscores his observations that there are some spreadsheet problems that no auditing can even hope to intercept and that there is no substitute for careful construction and documentation of the financial model one uses.

Abstract: This short paper discusses the problem that companies, particularly large companies, have in using spreadsheet programs. Although there is a trend toward looking for and using new technologies, especially in light of Sarbanes-Oxley, many companies are sticking with Excel and spreadsheets in general until they meet that Act’s challenges. This article is available through subscription in the August 2005 number of CFO.com.

URL: http://www.cfo.com/


Abstract: This useful article provides twenty guidelines to help in scoping a proposed spreadsheet; it makes several “best practices” suggestions and contains helpful references.


Abstract: This article provides a comparison of the influence diagram, spreadsheet models, and decision tree approach for analyzing three types of auto production models (dedicated, agile and flexible systems). The authors are less than enthusiastic about the value of spreadsheets for the type of analyses they used.


Abstract: This paper provides an outline to a layered defense against spreadsheet errors: cell tests, paired calculations, prediction tests, output reviews, and design procedures. “Majority of errors with formulae . . .”

URL: http://www.enumera.co.uk/spreaderr.htm


Keywords: End-user computing, risks, spreadsheet policies, guidelines

Abstract: This article presents the results of a study of management policies of four large organizations with regard to the most common form of end-user computing - spreadsheet model development. In particular, we discuss individual perceptions regarding the importance and materiality of decisions made using spreadsheet models and the individual and management response to ensuing model accuracy. We found that most models are developed for individual use. We also found that few formal policies are in place to govern model development and use. Finally, we discuss three alternative strategies companies could use to control end-user computing and discuss the advantages and disadvantages of each.


Abstract: "This paper develops the need to recognize the inherent uncertainty of key parameters in classic accounting problems . . . It provides examples that illustrate how Monte Carlo simulations can make accounting both more realistic and more challenging.” Contains over four pages of references, by with a strong orientation toward accounting applications.

URL: http://www.swcollege.com/acct/jac/jac11/jac11_article4.html


Abstract: A short article summarizing a series of error-avoiding techniques, including ‘road testing’ – a series of questions to ask.

Galletta, Dennis F., Dolphy Abraham, Mohamed El Louadi, William Leske, Yannis A. Pollalis, and

Abstract: This paper provides eight principles from software engineering as a starting point framework for organizing spreadsheet design recommendations. It also discusses the effect of experience among spreadsheet designers and users and the heterogeneity of spreadsheet programmers.

URL: www.sysmod.com/eusprig02.htm


Abstract: "Spreadsheets are the most widely-used platform for OR. The spreadsheet literature is scattered across academic and professional journals in many disciplines. We use the paradigm of

**Keywords:** Source code protection, Google spreadsheet, application development features

**Abstract:** Spreadsheets are used to develop application software that is distributed to users. Unfortunately, the users often have the ability to change the programming statements ("source code") of the spreadsheet application. This causes a host of problems. By critically examining the suitability of spreadsheet computer programming languages for application development, six "application development features" are identified, with source code protection being the most important. We investigate the status of these features and discuss how they might be implemented in the dominant Microsoft Excel spreadsheet and in the new Google Spreadsheet.


**Abstract:** "Australian spreadsheet application developers and their development practices in the field were surveyed. The developer population was mainly of graduate level but otherwise noted . . . The developers' usage of design, formula, input, output, review, testing, documentation and security controls is reported together with developer opinions as to each control's appropriateness for their particular application. The significance to the management of end-user computing of tolerating a high level of risk is discussed. . . ."


**Abstract:** "We cannot expect secure computing from the vast majority of software applications when they 're written with little, if any, knowledge of generally accepted good practices such as specifying before coding, systematic testing, and so on. Although using professional programmers doesn't guarantee correctness, security, or maintainability, the lack of real understanding about software development by end-user programmers poses a danger to stakeholders associated with mission-critical systems from the standpoint of both correctness and security."

**URL:** http://csdl.computer.org/comp/mags/so/2004/04/s4005.pdf


**Keywords:** computer anxiety, individual differences, academic disciplines, computer experience, gender differences

**Abstract:** An empirical study was conducted to investigate predictors of computer anxiety among undergraduate college business students. The effects of academic major, computer-related experience, gender, and ACT scores on computer anxiety were investigated. The results indicate significant differences in computer anxiety levels among business students with different majors and with different amounts of computer-related experience. The implications of these findings are discussed.


**Abstract:** The author, a unit leader at Weyerhauser, says: "spreadsheets support many OR applications, but can grow quite large. This paper describes a methodology for 1) rapidly inspecting large quantities of input data for significant outliers, 2) flexibly examining the results of a given LP solution, and 3) organizing and evaluating the solution results for a large set of scenarios."

Abstract: "Although electronic spreadsheets are a boon to accountants and financial analysts, they may have a disastrous impact on critical business decisions. . . Now is the time to establish . . . spreadsheet application development and documentation process to ensure that sound practices are in place."


Keywords: capability maturity model, empirical studies, personal software process, process improvement, PSP

Abstract: The study examines the impact of the Personal Software Process (PSP) on the performance of 298 software engineers. The report describes the effect of PSP on key performance dimensions of these engineers, including their ability to estimate and plan their work, the quality of the software they produced, the quality of their work process, and their productivity. The report also discusses how improvements in personal capability also improve organizational performance in several areas: cost and schedule management, delivered product quality, and product cycle time.


Keywords: spreadsheets

Abstract: Ten discretionary users were asked to recount their experiences with spreadsheets and to explain how one of their own sheets worked. The transcripts of the interviews are summarized to reveal the key strengths and weaknesses of the spreadsheet model. There are significant discrepancies between these findings and the opinions of experts expressed in the HCI literature, which have tended to emphasize the strengths of spreadsheets and overlook the weaknesses. In general, the strengths are such as allow quick gratification of immediate needs, while the weaknesses are such as make subsequent debugging and interpretation difficult, suggesting a situated view of spreadsheet usage in which present needs outweigh future needs. We conclude with an attempt to characterize three extreme positions in the design space of information systems: the incremental addition system, the explanation system and the transcription system. The spreadsheet partakes of the first two. We discuss how to improve its explanation facilities.

Hermann, Franz. Getting the Oops! Out of Spreadsheets 1999 [cited].

Keywords: spreadsheets, audit tools, error

Abstract: Since spreadsheets are tools that not only describe a company's financial history but also tell its future, even tiny errors in one cell can be disastrous. Yet, as CPAs know, spreadsheets usually do contain errors. While there are ways to ferret out and correct most errors, CPAs should be aware that no foolproof solutions exist. At best errors can be minimized, so the prudent user should stay alert to the danger and use all the available tools to find them.


Abstract: A management science text that uses spreadsheets extensively.


Abstract: "Since spreadsheets are tools that not only describe a company's financial history but also tell its future, even tiny errors in one cell can be disastrous. Yet, as CPAs know, spreadsheets usually do contain errors. While there are ways to ferret out and correct most errors, CPAs should be aware that no foolproof solutions exist. At best, errors can be minimized, so the prudent user should stay alert to the danger and use all the available tools to find them."

Abstract: "Having established the need for spreadsheet management solutions, this paper goes on to discuss what such a solution might look like. In fact, there are different approaches . . . ranging from complete control . . . to complete monitoring with no control."

URL: www.bloor-research.com


Keywords: Debugging, end-user computing, spreadsheet development, spreadsheet error detection, systems development methodologies

Abstract: The extensive computational and formatting capabilities of today's spreadsheets enable users to create sophisticated analytical models with professionally formatted outputs. But good-looking reports can mask a host of errors, formula mistakes, and computational problems. This article examines the subject of spreadsheet error detection in detail and describes an experiment designed to identify those factors influencing the error-detection capabilities of a sample of spreadsheet users.


Keywords: end-user computing, design methodology, errors

Abstract: End-user developed applications introduce many control risks into organizations. Literature suggests that influencing factors include developer experience, design approach, application type, problem complexity, time pressure, and presence or absence of review procedures. This research explores the impacts of different design approaches through two field experiments evaluating the use versus non-use of a structured design methodology when developing complex spreadsheets. Our results indicated that subjects using the methodology showed a significant reduction in the number of "linking errors," i.e., mistakes in creating links between values that must flow from one area of the spreadsheet to another or from one spreadsheet to another in a common workbook. We also observed that factors such as gender, application expertise, and workgroup configuration influenced spreadsheet error rates as well.


Keywords: risks in end user development, spreadsheet errors, structured design

Abstract: This paper explores the impact of using a structured design approach for spreadsheet development. We used two field experiments and found that subjects using the design approach showed a significant reduction in the number of "linking errors," i.e., mistakes in creating links between values that must connect one area of the spreadsheet to another or from one worksheet to another in a common workbook. The results provide evidence that design approaches that explicitly identify potential error factors may improve end-user application reliability. We also observed that factors such as gender, application expertise, and workgroup configuration also influenced spreadsheet error rates.


Abstract: This article gives an easy-to-read outline of the field of spreadsheet engineering. It organizes the subject in a meaningful and understandable fashion.


Keywords: computer science, gender, race, performance
Abstract: In the study described, 65 prospective computer or information science majors worked through a tutorial on the basics of Perl. Eighteen students were African American. The authors studied the relationship among six factors that could predict performance of students - among these factors were gender and race differences.


Keywords: spreadsheet, OR education, LP, end-user computing, modeling

Abstract: This paper suggests that the use of spreadsheets for teaching students about LP modelling can be further enhanced by supplying students with a suitable template at the introductory stage. With a rearrangement of the layout, which corresponds to a standard pedagogic approach, it is possible to create a template, with locked formulae, which is easy to use and flexible enough to handle problems of different sizes. Such a template would help students concentrate on LP modelling concepts rather than being distracted by spreadsheet errors.


Abstract: This paper describes the development of a diagnostic test for spreadsheet knowledge.


Abstract: "In this paper, we discuss the problem of the software engineering of a class of business spreadsheet models. A methodology for structured software development is proposed, which is based on structured analysis of data, represented as Jackson diagrams. It is shown that this analysis allows a straightforward modularisation, and that individual modules may be represented with indentation in the block-structured form of structured programs. The benefits of structured format are discussed, in terms of comprehensibility, ease of maintenance, and reduction in errors. The capability of the methodology to provide a modular overview in the model is described, and examples are given. The potential for a reverse-engineering tool, to transform existing spreadsheet models is discussed."


Abstract: This paper introduces Brixx as an alternative to the spreadsheet. It uses "object technology" to implement a unique capability that "delivers a real alternative to the spreadsheet, and meets both technical and emotive challenges."

URL: www.sysmod.com/euspring01.htm


Abstract: This paper discusses six types of learning barriers: design, selection, coordination, use, understanding, and information. "These barriers inspire a new metaphor of computation, which provides a more learner-centric view of programming system design."

URL: For EUSES news, information about related events, and publications from 2003, 2004 and 2005 see: http://eecs.oregonstate.edu/EUSES/


Keywords: end-user computing, end-user development, application quality, spreadsheet design

Abstract: This paper examines one approach to improving application quality which is to provide end-users with training in systems analysis and design methods. The study was conducted via the Internet with real end-users. Though no significant difference was found for some measures of
quality, there was a significant improvement in the overall design of an application after the end-user received analysis and design training. This is important information for business managers because a well designed application is more likely to remain accurate and useful over time.


**Keywords:** teaching, spreadsheets, spreadsheet model development, financial modeling

**Abstract:** This paper presents an adaptable mortgage analysis project that provides a practical setting in which students can develop critical spreadsheet modeling skills while demonstrating knowledge of several important principles of accounting and finance. The developed spreadsheet model is designed in a structured manner to permit changing the necessary financial terms and facilitates performing sensitivity analysis on critical variables.

**URL:** www.elsevier.com/locate/jaccdedu


**Keywords:** Theory testing, spreadsheet accuracy, spreadsheet development

**Abstract:** Electronic spreadsheets are used extensively to support financial analysis and problem solving processes; however, research has revealed that experienced professionals and students make many errors when developing spreadsheets. Practitioners recognize the importance of accuracy and have published many techniques for improving the accuracy of their spreadsheets. Their prescriptions and results of research are consistent and together these works form the basis for spreadsheet accuracy theory. Three propositions describe how the three constructs influence spreadsheet accuracy in a laboratory experiment. The results of this study indicate that the Spreadsheet Accuracy Theory developed three aids that significantly improve development of accurate spreadsheets.


**Abstract:** "(The) findings provide a meaningful step in more perceptibly understanding and defining important cognitive changes that occur in individuals as they undergo formalized spreadsheet development training."


**Keywords:** spreadsheet accuracy, theory building, spreadsheet development

**Abstract:** Electronic spreadsheets have made a major contribution to financial analysis and problem solving processes. However, academic literature reveals that experienced professionals and students make many errors when developing spreadsheets. Systematic evaluation of this literature provides a basis for understanding practitioners’ perceptions of how and why errors occur in spreadsheets and is also valuable source from which to identify a theory of spreadsheet accuracy and capture the knowledge of experience spreadsheet developers. The analysis of this literature suggests three categories of issues spreadsheet developers must address to create more accurate spreadsheets including: planning and design; formula complexity; and testing/ debugging. Spreadsheet accuracy theory explains and predicts how changes in development processes can be expected to impact spreadsheet accuracy.


**Keywords:** project financing, models, risk management, errors

**Abstract:** This paper provides an introduction to project financing, a description of project financing models, a discussion of how to enhance such models, the role of the actuarial profession, and an appendix on statistics on model error rates.

**Keywords:** programming - integer, applications, project management

**Abstract:** When assigning managers to construction projects, Heery International tries to minimize the total cost of the assignments while maintaining a balanced workload for different managers. We developed and implemented an Excel spreadsheet optimization model for problems with up to 114 projects. As time passes, new projects arise, old projects terminate, and occasionally new managers join the team, and existing ones resign or transfer out. Because the model is in a spreadsheet environment, Heery can easily add to or remove projects and managers from the model. As a result of our model, Heery has managed its projects without replacing a manager who resigned and has reduced travel costs, because the model assigns managers to projects that are closer to their homes than previously.


**Abstract:** “Universities are using more information and communication technologies (ICT) in their teaching and learning environments. An anonymous multiple-choice survey self-assessed the spreadsheet skills of students enrolled in first-year units at the beginning of 2003. The results of the survey indicate significant deficiencies in the use of spreadsheets. There are a significant proportion of students who are unable to use spreadsheets as part of their education at the start of their university studies. The implications for tertiary education are discussed.”

**URL:** http://www.sie.bond.edu.au/vol1number2.htm

Mailbarrow. "52 Easy Ways to Prevent Spreadsheet Problems."

**Abstract:** A series of outlines of information on: formulas and functions, printing, named ranges, files, formatting, charts, database tables, and VBA Macros, etc. A full version provides helpful details.

**URL:** http://www.mailbarrow.com/services_excel_prevent.php


**Keywords:** spreadsheets, programming, design, OR education

**Abstract:** This paper describes a teaching approach - a course on making the transition from spreadsheets to computer programming. It is illustrated with examples that have been designed and developed to help students to make this transition. It discusses insights into spreadsheet design that are afforded by this software, in particular concerning differentiation of statistics from dynamics, control, visibility of data, and user interaction.

**URL:** www.stockton-press.co.uk/jors


**Abstract:** "Spreadsheet based decision modeling is widely used in business today. The functionality provided within the current integrated packages allows users to develop very complex business models. Unfortunately, most spreadsheets do not follow any particular methodology when building spreadsheets based models . . . This paper presents an example of the type of framework that can be used when developing spreadsheet based business models . . ."


**Abstract:** This series of “entries” provides a range of information on how to reduce spreadsheet errors and mistakes – understanding the error generation cycle, the design phase, the testing phase, the input phase, the regular usage phase, the further development phase, and the distribution phase.

**URL:** http://www.spreadsheetrisk.com

**Keywords:** end-user computing, end-user development, spreadsheet knowledge, user-developed application success

**Abstract:** This paper reports on a study to investigate the role of spreadsheet knowledge in the successful use of spreadsheet applications. It considers both the spreadsheet knowledge of the user developer and the spreadsheet knowledge of the user and tests a model of the effect of spreadsheet knowledge on the success of a user-developed spreadsheet application. Spreadsheet knowledge was shown to be important in two ways. It influences the quality of the system being developed, but it also acts directly upon the individual impact of the application. Successful use appears to require sufficient knowledge to understand and, if necessary, alter the application.


**Abstract:** "This paper describes the code inspection approach that visually represents the structure of a linked spreadsheet and graphically identifies linked cells and their sources."


**Abstract:** "This paper describes the properties of the spreadsheet interface and the ways in which spreadsheets support users with little or no formal training in programming. We analyze the spreadsheet formula language through which users express mathematical relations and the tabular grid which permits users to view structure and display data. Based on our analysis of the formula language and the tabular grid, we argue that user programming environments should be characterized by (1) a limited set of carefully chosen, high-level, task-specific operations that are sufficient for building applications within a restructured domain, and (2) a strong visual format for structuring and presenting data."

**URL:** [http://www.darrouzet-nardi.net/bonnie](http://www.darrouzet-nardi.net/bonnie)


**Abstract:** "We have found that spreadsheets offer surprisingly strong support for cooperative development of a wide variety of applications. Ethnographic interviews with spreadsheet users showed that nearly all of the spreadsheets used in the work environments studied were the result of collaborative work by people with different levels of programming and domain expertise. We describe how spreadsheet users cooperate in developing, debugging and using spreadsheets. We examine the properties of spreadsheet software that enable cooperation, arguing that: (1) the division of the spreadsheet into two distinct programming layers of programming skill; and (2) the spreadsheet's strong visual format for structuring and presenting data supports sharing of domain knowledge among co-workers."

**URL:** [http://www.darrouzet-nardi.net/bonnie](http://www.darrouzet-nardi.net/bonnie)


**Abstract:** The ACM Committee on Computers and Public Policy held a forum to discuss the issue of risks in eleven different contexts, from investment fund management to phone systems, to soldiers and cellular phones, to computer addiction, and more.


**Abstract:** "It is now widely accepted that errors in spreadsheets are both common and potentially dangerous. Further research has taken place to investigate how frequently these errors occur,
what impact they have, how the risk of spreadsheet errors can be reduced by following spreadsheet design guidelines and methodologies, and how effective auditing of a spreadsheet is in the detection of these errors. However, little research exists to establish the usefulness of software tools in the auditing of spreadsheets. This paper documents a test of five software tools designed to assist in the audit of spreadsheets. The test was designed to identify the success of software tools in detecting different types of errors, to identify how the software tools assist the auditor and to determine the usefulness of the tools.”

URL: http://www.gre.ac.uk/~cd02/EUSPRIG/


Keywords: stochastic programming, multi-criteria optimization, decision support, spreadsheets

Abstract: In recent years, tools for solving optimization problems have become widely available through the integration of optimization software (or solvers) with all major spreadsheet packages. This paper introduces a decision support methodology for identifying robust solutions to LP problems involving stochastic parameters and multiple criteria using spreadsheets.

URL: www.elsevier.com/locate/dsw


Abstract: The focus of the article (Euro conversion) is dated; however, there are some tips of value related to such good spreadsheet design practices as designating input areas that keeps all input data together and the use of range names.

URL: http://www.sysmod.com/ or www.sysmod.com/eusprig01.htm

———. "Extreme Spreadsheet Engineering (Xse)." Systems Modelling, Ltd., 2002.

Abstract: This paper describes the key features of XP (Extreme Programming). Other information is provided on classroom training, web-sites, etc.

URL: http://www.extremeprogramming.org


Abstract: This piece is useful for the number of links available to information on spreadsheet design, other sites on 'good practices', spreadsheet auditing and inspection tools, mail lists, research, testing, validation and verification, and US business modeling.

URL: http://www.sysmod.com/spreadsheetlinks.htm


Abstract: This book explains how to avoid the most common spreadsheet errors and to make future development easier. It provides techniques for checking spreadsheets for accuracy and soundness, and it offers many ways in which data can be hidden or calculation methods subverted.

URL: http://www.SystemsPublishing.com


Abstract: This is a list of stories relating examples of significant spreadsheet errors, with sources of information and ways that the errors might have been avoided in the first place.

URL: http://www.eusprig.org/stories.htm


Abstract: This article discusses the fundamentals of, motivations for, issues in, and data warehousing for
end-user computing. It also covers internet and e-commerce end-user computing and the future for mobile computing.

Abstract: This piece provides links to useful materials. This one is focused on EURO calculations. It also provides a link to O'Beirne's blog on best practices.
URL: http://www.sysmod.com/spreadsheetlinks.htm

Abstract: This paper describes Nestlé’s promotion of the use of decision tools based on management science techniques through training and internal consulting in 1996. This focused on four modules of operations research: sensitivity analysis, forecasting, simulation, and optimization. The success to date is leading the company to extend its emphasis to even more sophisticated tools and diffusing them through the company’s operations around the world.

Abstract: “This article analyzes details of the cognition involved when people use spreadsheet software, a task that is both a major microcomputer application and a cognitively intense task. This task is analyzed in terms of GOMS model (Card, Moran and Newell, 1983), to test the generality of the model and to extend its set of parameters. We found that people using two seemingly similar spreadsheet applications, Lotus 1-2-3 and Multiplan, require very different amounts of time to accomplish the same tasks.”

Abstract: “... Results of a scoping survey of non-anecdotal data on spreadsheet usage. ... Interviews (with) people who develop spreadsheets. We investigate the determinants of spreadsheet importance, identify current industry practices, and document existing standards for creation and use of spreadsheet. ... Goal is to provide insight into user attributes, spreadsheet importance, and current practices.”
URL: Ozgur@usfca.edu

Abstract: “Sixty undergraduate MIS students code-inspected a spreadsheet seeded with 8 errors. Individual code inspection caught only 63% of the errors. Group inspection raised this to 83%. However, the group phase never found new errors; it merely pooled the errors found during the individual phase by the three members.”

Abstract: These contain citations and, in some cases, annotations of, articles of error research, cognitive, behavioral and numerical research, descriptive writings, and questionnaire and interview research.
URL: http://panko.cba.hawaii.edu/ssr

Abstract: This article documents spreadsheet errors and underscores the need for discipline and standards.
URL: http://panko.cba.hawaii.edu/ssr

Abstract: A report from a series of field audits and experiments. Many references.

URL: http://panko.cba.hawaii.edu/ssr


Keywords: spreadsheet, code inspection, errors
Abstract: This report describes the 3-person team code inspection of a spreadsheet developed at NYNEX, the largest regional telecommunications company in the northeastern part of the United States.


Keywords: Spreadsheet testing, errors, logic inspection
Abstract: This paper presents the author's recommended practices for spreadsheet testing. Documented spreadsheet error rates are unacceptable in corporations today. Although improvements are needed throughout the systems development life cycle, credible improvement programs must include comprehensive testing. Several forms of testing are possible, but logic inspection is recommended for module testing. Logic inspection appears to be feasible for spreadsheet developers to do, and logic inspection appears to be safe and effective.


Keywords: Error; human error research, spreadsheet practice
Abstract: In the spreadsheet error community, both academics and practitioners generally have ignored the rich findings produced by a century of human error research. These findings can suggest ways to reduce errors; we can then test these suggestions empirically. In addition, research on human error seems to suggest that several common prescriptions and expectations for reducing errors are likely to be incorrect. Among the key conclusions from human error research are that thinking is bad, that spreadsheets are not the cause of spreadsheet errors, and that reducing errors is extremely difficult.


Keywords: spreadsheet, spreadsheet risks, end user research
Abstract: Even the earliest writers in end user computing remarked on the potential dangers of end user spreadsheet development. Until recently, there was only anecdotal evidence to support their concerns. Now, there is considerable evidence from experiments, field audits, and surveys of end users and organizations that early concerns were well founded. This paper presents a framework for risks in spreadsheeting and organizes selected research findings in terms of this framework.


Keywords: spreadsheet, spreadsheet error, spreadsheet testing
Abstract: The widespread presence of errors in spreadsheets is now well-estable. Quite a few methodological and software approaches have been suggested as ways to reduce spreadsheet errors. However, these approaches are always tailored to particular types of errors. Are such errors, in fact, widespread? A tool that focuses on rare errors is not very appealing. In other fields of error analysis, especially linguistics, it has proven useful to collect corpses (systematic samples) of errors. This paper presents two corpses of errors seen in spreadsheet reduction approaches and should guide theory creation and testing.


Abstract: The authors surveyed part-time students (who were working full-time) at the University of
Northumbria Business School in 2000 in their use of spreadsheets. Among the information gathered were the types of applications used by these student and the types of training they had received on spreadsheets.


Keywords: spreadsheet, validation, regulation compliance

Abstract: This article presents a top-down approach to properly implementing a validation project for electronic spreadsheets. It provides some interesting historical background about the evaluation of electronic spreadsheets and uses Microsoft Excel as the base spreadsheet application. It discusses the shortcomings of spreadsheets and highlights some unique solutions and techniques to help pharmaceutical companies comply with 21 CFR Part 11.

URL: www.validationassociates.com


Keywords: Errors, impacts of errors

Abstract: All users of spreadsheets struggle with the problem of errors. Errors are thought to be prevalent in spreadsheets, and in some instances they have cost organizations millions of dollars. In a previous study of 30 operational spreadsheets we found errors in 0.8% to 1.8% of all formula cells, depending on how errors are defined. In the current study we estimate the quantitative impacts of errors in 25 operational spreadsheets from five different organizations. We find that many errors have no quantitative impact on the spreadsheet. Those that have an impact often affect unimportant portions of the spreadsheet. The remaining errors do sometimes have substantial impacts on key aspects of the spreadsheet. This paper provides the first fully documented evidence on the quantitative impact of errors in operational spreadsheets.


URL: http://dssresources.com/history/shistory.html version 3.6, 08/30/2004


Keywords: Actuarial software, spreadsheets, statistical packages, databases

Abstract: Software is a key part of our day-to-day work as actuaries. From the moment we sit down at our desks we are using e-mail, spreadsheets, databases and a host of other packages. Yet despite its importance, relatively little time is spent discussing how software is used and what problems are associated with any particular package. Our aim was to start addressing these questions.

The first step in understanding actuarial software use is to find out what software is being used. We therefore decided to conduct a survey of actuaries working in general insurance. Our request for survey participants was forwarded to their mailing lists by both the UK Actuarial Profession and the CAS. The response level was high, indicating that this is an issue of importance to many non life actuaries.


Keywords: Spreadsheet errors, classification, end-user
Abstract: The research presented in this paper establishes a valid, and simplified, revision of previous spreadsheet error classifications. This investigation is concerned with the results of a web survey and two web-based gender and domain-knowledge free spreadsheet error identification exercises. The participants of the survey and exercises were a test group of professionals (all of whom regularly use spreadsheets) and a control group of students from the University of Greenwich (UK). The findings show that over 85% of users are also the spreadsheet's developer, supporting the revised spreadsheet error classification. The findings also show that spreadsheet error identification ability is directly affected both by spreadsheet experience and by error-type awareness. In particular, that spreadsheet error-type awareness significantly improves the user's ability to identify the more surreptitious, qualitative error.


Abstract: A guide for spreadsheet design and use. It provides a number of principles to follow, describes potential errors, and shows how to audit a spreadsheet and to teach the art of spreadsheet design. A checklist accompanies the text.


Abstract: This paper makes the case for a new style for spreadsheet that emphasizes readability: (1) make spreadsheets read from left to right and from top to bottom, (2) be concise, (3) format for description, not decoration, and (4) expose rather than hide information.

URL: www.sysmod.com/eusprig01.htm


Abstract: Raffensperger’s guidelines for presentations and focuses on: graphics, presentations, web pages, and conclusions. This has points of importance for those designing spreadsheets.


Abstract: A management science text that uses spreadsheets extensively.


Abstract: "This article describes a framework for a systematic classification of spreadsheet errors, aimed at facilitating analysis and comprehension of the different types of spreadsheet errors. It also contains a description of various elements and categories of the classification, supported by numerous examples." 

URL: http://www.gre.ac.uk/~cd02/EUSPRIG/


Abstract: This paper describes an approach based on classical System Development Life Cycle (SDLC), structured methods and software engineering principles. It addresses the problem of spreadsheet errors. Numerous approaches are incorporated into this framework, making it "a highly integrated and structured methodology for spreadsheet design and development". The methodology consists of five stages: planning, analysis, design, implementation, and maintenance with a number of steps listed for each stage. It also contains new developments in the research into integrity control of spreadsheet models.

URL:


Abstract: This paper presents “work conducted towards the development of an effective software

Abstract: This paper, also published by Business Dynamics of Price Waterhouse Coopers, presents the following topics: modeling life cycle, model specification, design, building the model, testing, using and managing the model.

URL: www.decisionmodels.com/linkssites.htm and/or http://www.eusprig.org/smbp.pdf


Abstract: "The EXIT research project aims to develop a MS Excel tutor that helps students or learners to overcome their learning difficulties. In this paper, we analyse and classify spreadsheet errors made by students in order to determine the function that our system should perform and to generate an error library for student modeling purposes."


Keywords: errors, spreadsheet reliability, end-user training

Abstract: Most models of human information processing include a perceptual "filter" as a precursor to mental processing. Building on the possible existence of template perceptual filtering, this article presents the results of a laboratory experiment that was conducted to investigate some of the factors that influence an individual’s assessment of spreadsheet reliability. The study also investigated the subjects' level of confidence in their reliability assessments. The results of the study indicate that an interaction between large size and elaborate formatting significantly inflated perceptions of reliability.


Abstract: This article discusses several different contexts for the development of spreadsheet models and presents structured design techniques for these models. Discusses spreadsheet flow diagrams in detail.


Keywords: spreadsheet, human-computer interaction, intermediate imagery

Abstract: A common subtask in spreadsheet calculation is the transformation of verbal task instructions into spreadsheet formulas. This task can be used to study the relation of imagery to thinking. Research using physics and mathematics problems has indicated that mental transformation from verbal to mathematical representations is not necessarily direct but is intermediated by imagery. Therefore, a human-computer interaction task such as spreadsheet calculation provides a good task environment for analysing mental imagery operations, the role of imagery operations, and the role of intermediate imagery in thinking tasks. Testing the use of imagery in spreadsheet calculations also improves our understanding of representational systems used in this specific task and in user interfaces in general.
Four experiments provided different types of evidence for the intermediate imagery hypothesis, which means that subjects do not directly transform verbal instructions into spreadsheet formulas. They first try to code an overall image of the areas referred to by verbal instructions, segment it into suitable fields, and only thereafter do they write down the set of formulas which best extract the information demanded.


Abstract: "Computations in spreadsheets are hard to grasp and consequently many errors remain unnoticed. The problem with the hidden errors lies in the invisibility of the structure of calculations. As a result, auditing and visualization tools are required to make spreadsheets easier to comprehend and to make errors easier to detect. This paper presents a theoretical model of spreadsheets and a technique to describe and compare various tools. Moreover, two new visualization mechanisms are introduced. “The spreadsheet model reflects not only current spreadsheet systems but also the way people actually use spreadsheets. Theoretically, it is impossible to check the correctness of a spreadsheet without a formal definition of its computations, but our hope is to find visualizations that point out parts of spreadsheets that contain anomalies, i.e. potential locations of errors. This model helps us to understand how such anomalies can be defined.”

URL: http://www.idealibrary.com


Abstract: "Spreadsheet calculation is a powerful tool in simple administrative data processing. Formulae in spreadsheets have similar forms to expressions in traditional programming languages, but the implementation of control structures is totally different. This paper contains an analysis of 101 spreadsheets made and used in business and government. The analysis concerns general properties, such as cell contents and referencing, the role of input, output and computation, and the different ways iteration is implemented. Finally some effects of expertise are studied. The results show that less than half of the available functions are really used, only one cell in 25 contains computation, and iteration is implemented in at least four different ways. Formulae are found to differ in their contents from expressions of programming languages, as control structures are implemented differently in these systems. Summation with a constant skip is suggested to be included in the set of functions of spreadsheet calculation."


Abstract: "Adequate documentation of systems and applications is important, yet we often see or create spreadsheet files that carry minimal, if any, documentation. Broad documentation includes a description of the model, its purpose, user instruction, and model history. Detailed documentation is intended to annotate computational sections of the model to aid debugging and later modification."


Abstract: This paper provides some aspects of software engineering in general and spreadsheet engineering in particular. It also contains guidelines for implementing spreadsheet-based tools.

URL: http://ite.pubs.informs.org/Vol4No1/Scheubrein/index.php


Keywords: spreadsheet risk, spreadsheet controls

Abstract: The findings of this study show that a number of controls are being applied to spreadsheet applications. The findings also show that developers use more controls in high-risk spreadsheet applications. Given the risk factors associated with spreadsheet development, management should be aware that effective control mechanisms should be used to minimize the risk of bad data, unauthorized access, and incorrect logic.


Abstract: This audit methodology was first introduced in 1992 with the acquisition of Spreadsheet Auditor - the first standard audit tool for spreadsheets used in H. M. Customs and Excise. The current revision has been made in response to the experience of computer system auditors and their trainers in H. M. Customs and Excise using both the methodology and SpACE during 2000.


Keywords: spreadsheet, validation, auditing software

Abstract: This article presents seven methods for validating spreadsheet models: developing spreadsheets standards, performing simple tests, creating control-check tables, having other audit your models, using spreadsheet auditing tools, and creating duplicate models.


Abstract: This short piece provides a good review of the features of Spreadsheet Detective. This software is designed to ensure model correctness by providing automated documentation that highlights mistakes.

URL: http://www.uq.net.au/detective/home.html


Abstract: The paper proposes a "visual representation for model management operators based on graph transformations."

URL: www.utdallas.edu/~glsong/


Keywords: risks in end user development, policy, risk management

Abstract: Essentially unaddressed in prior end-user computing (EUC) research is an important context factor: the functional department of the end-user. Just as individual employees vary in their EUC tool and management support needs, we propose that not all functional departments in the same firm will use EUC tools for the same tasks, perceive the same EUC risks, and have the same management control needs. This article reports on an exploratory study designed to investigate potential differences across functional groups in the same organization for three factors: application tasks, policies to minimize risk, and perceived EUS benefits.


Abstract: This article covers seven phases of the System Development Life Cycle (SDLC), the strengths and weaknesses of SDLC, and different approaches to system development. The basic phases of the approach are system analysis, system design and system implementation.

URL: www.acc.teithe.gr/C-J-STEFANOUST.html

Stigliano, Jose, and Marco and Bruni. "End-User Computing Tools." Encyclopedia of Information
Abstract: The article discusses a range of office productivity tools, workgroup computing tools, application development tools, and trends.


Keywords: travel cost, frequent flyer miles, airfares

Abstract: The mileage redemption strategy is a procedure used by many business firms to reduce air travel costs, in which the frequent flyer miles of traveling employees accumulated during business trips are applied to their future business trips to obtain "free" air tickets. This paper presents a framework that investigates how the frequent flyer miles can be used in the most effective way to reduce air travel costs by those firms that are either using the mileage redemption strategy or considering the use of the strategy. The framework can be implemented quite easily by spreadsheet software such as MS Excel.

URL: www.frontsys.com/readable.htm


Keywords: spreadsheet errors, error detection

Abstract: Past research has shown that errors are relatively common in all types of spreadsheets. As spreadsheets are used widely by executives in analyzing financial, budgeting, and forecasting problems to support their decision making, it is very important that spreadsheets are accurate. Errors undetected in spreadsheets may have undesirable consequences as they may adversely impact the firm's bottom line as well as the firm's competitiveness. In this paper, we investigate the types of errors that occur for a simple domain-free spreadsheet model. We also show that spreadsheet errors can be difficult to detect during "what if" analysis (i.e., when design parameters are changed) when the spreadsheets are not properly designed. The results show that most students to not take care in designing their spreadsheets. The study appears to suggest that in teaching spreadsheets, emphasis must be placed on creating a comprehensible design that enables easy detection of errors and easy maintenance.


Keywords: debugging, detection of errors, qualitative errors, quantitative errors, spreadsheet errors

Abstract: Previous research has shown that spreadsheet errors are common and not easily detectable. In this paper, an experiment was conducted to examine the rate of detection of both quantitative and qualitative errors in two domain-free spreadsheets. A detailed list and explanation of the types of common spreadsheet errors are presented. Results showed that the ability to detect various types of errors appears to be dependent on the type and prominence of errors as well as prior incremental practice with spreadsheet error detection. Implications of the findings are discussed.


Abstract: The author presents "an empirical study with novice users, comparing the traditional
spreadsheet calculation paradigm and the structured spreadsheet calculation paradigm. The results show that the two different paradigms produce different error behaviors.


Keywords: errors, spreadsheet controls

Abstract: This report offers a practical 5-step program for evaluating spreadsheet controls


Abstract: BPM Analytical Empowerment Publication developed in association with the Spreadsheet Standards Review Board These standards are the subject of ongoing development with updates and many other spreadsheet modeling resources being made available at: www.bpmhome.com A companion version with commentary and examples is also available upon request.

URL: www.bpmhome.com


Abstract: Good reference for spreadsheet development that focuses on installation, data entry, user documentation, graphical user interface, and EPRI software process requirements.

URL: http://epri.com/eprisoftware/procespreadsheetguide/spreadsheetdev.html


Abstract: A summary of spreadsheet mistakes from many sources.

URL: http://www.eusprig.org/stories.htm


Abstract: This is a listing of significant resources for spreadsheet design, auditing tools, mail lists, research, testing, risk interest group, MS-Office and Excel, VBA code examples, tools and utilities, Excel tips (and tricks, traps, bugs, etc.), and directories, publications, accountancy articles and business modeling.

URL: http://www/sysmod.com/spreadsheetlinks.htm


Abstract: This document contains summaries of papers accepted for the 2004 conference.

URL: http://eecs.oregonstate.edu/EUSES/


Abstract: The Sarbanes-Oxley Act (SOX) contains a number of provisions that are greatly influencing accounting practices. This summarizes the major provisions of the act including the important Section 404: Management Assessment of Internal Controls.

URL: http://www.aicpa.org/info/sarbanes_oxley_summary.htm


Abstract: This paper discusses the evaluation of the control environment and specific control activities that should be considered by management in evaluating the use of significant spreadsheets as part of their 404 process.

URL: http://www.uq.net.au/detective

Abstract: “Getting a grip on a large and complex model is a real challenge, particularly when time is of the essence. When under pressure, the techniques illustrated here can swiftly reduce, but not fully eliminate, modeling risk. However, being focused on what is important and being creative with testing techniques can ensure that the greatest value is obtained from the time spent reviewing the model.”


Abstract: This short paper examines the trend toward business performance management (BPM) tools. It describes the strategy of many BPM vendors to place Excel at the heart of their offerings, recognizing the flexibility of the Excel and its popularity among financial managers. This article is available, by subscription, in the August 2005 number of CFO.com.

URL: http://www.cfo.com/


Abstract: An article that describes (and provides web-sites for) a variety of Excel tools – Spreadsheet Detective, Spreadsheet Pro, Spreadsheet Assistant, JEM Plus, SPREDGAR, etc.