Many medium- to large-sized organizations are using budget plans that are incomplete and inaccurate. Some corporations with complex organizational structures have even gone so far as to discard budgeting as unworkable at all but the operational unit level, sacrificing a significant measure of managerial control.

Why?
Budgeting lies at the heart of business management. “Budgetary planning and control is the most visible use of accounting information in the management control process. By setting standards of performance and providing feedback by means of variance reports, the accountant supplies much of the fundamental information required for overall planning and control.”

Historically, a budget is simply a forecast of expenditures and revenues for a specific period of time. However, as the structure of businesses has become more complicated, the function, scope, and management of the budget has become accordingly more complex. From its original function as a purely financial document, the business budget is now “generally used as a tool to formulate intelligent decisions on the management and growth of a business venture” enabling businesses to set priorities and monitor progress toward both financial and non-financial goals.

Effective enterprise-wide budgeting is difficult. The problems encountered in what industry analyst firm Gartner Group has called “a painful annual ritual” are considerable. It is not uncommon for line managers and their staff to spend weeks preparing their budget submissions; and for central budget managers or management accountants to spend even more time consolidating, revising and redistributing budget plans. In a 1995 benchmark study, Price Waterhouse reported that budgeting costs large multinational enterprises a median of $63,000 for every $100 million of base revenue within finance departments alone. Factoring in the considerable effort spent by multiple budgeting units would increase this cost many times over.

Most budget processes are inefficient, as well as costly. The Price Waterhouse benchmark also found that budget preparation took an average of 110 days from start to finish and reported that profit forecasts varied from actual results by a median of 10 percent.

Budgeting is complicated and difficult because by its nature it is comprehensive and collaborative. According to the European economist Beatrice Loom-Dri, “The budget is the sole corporate task that goes in depth and detail through the entire organization.” This paper discusses the problems encountered in preparing enterprise-wide budgets and shows how software is key to improving the process and its results.
The Budgeting Process

No single budgeting method prevails in large organizations. Techniques range from traditional methods focused on cost center accounting, through project and fund budgeting, to activity based budgeting (ABB), which is increasingly popular within service enterprises. The start point for budget creation can be at strategic summary level (top-down budgeting) or come from detailed operational level (bottom-up or zero-based budgeting). In practice most organizations use a combination of techniques, sometimes known as a 'counter-current' process. However, despite the range of techniques, most budgeting processes and planning requirements are the same for all companies.

Budgeting, by its nature, tends to be:

- Hierarchical, with multi-tiered checkpoints and control levels
- Iterative, with multiple versions and layered consolidations
- Nomadic, with the sporadic involvement of many people, some in remote locations
- Periodic, typically a once-a-year process with multiple re-forecasts
- Mutable, changing business conditions prolong the process

Figure 1 - The Nature of Budgets

Most organizations use a combination of budgeting techniques.
In itself, budgeting remains a conceptually simple exercise whatever the size of the organization involved or the approach taken: it is the logistics of the process, the path toward credible figures that represents the source of difficulty. "The two major problems in the accounting information itself relate to data collection and information disaggregation." This has serious implications. "It is possible that the lack of use of accounting information is as serious a problem as its misuse, particularly at middle-management level. Line managers will ignore formally produced accounting information when they perceive it to be of little relevance to their tasks."

The enterprise-wide budgeting process is difficult to manage because it is:

- Detailed, requiring a large volume of data for accuracy
- Distant, often perceived as a finance “dictatorship” with little local relevance
- Dependent, relying on the IT department and supporting technology
- Unpredictable; the number of cycles needed to agree on a budget is unknown and erratic and may lead to significant deadline overruns (see Figure 2 below)

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Accounting for Management Control

Budgeting Problems

Sources of Difficulty

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Figure 2 - Overshooting the Mark
Exclusive Research Findings

In 1996, Hyperion Software conducted research about large organizations' budgeting processes. Outlined below are five of the seven problem factors identified as the most commonly encountered in the process:

**Lack of support from line managers**

*Quote:* "All I know is I've got to put numbers in this spreadsheet for the head office. It doesn't reflect the way we do business here..."

*Implication:* Line managers feel disenfranchised, budget figures are produced grudgingly, and budget accuracy suffers as a result.

**Lack of corporate control**

*Quote:* "I have no idea where my managers get the numbers from."

*Implication:* The underlying detail used in the development of operational budgets is never collected or is lost during consolidation. As a result, corporate finance executives have little understanding of how line managers have arrived at their budget submissions.

**No communication of assumptions**

*Quote:* "Where do the figures come from? I think it's largely 'finger in the air' stuff."

*Implication:* The top level budget model does not tie back to the department manager's details. Corporate finance spends countless hours trying to reconcile the two frameworks and "forcing" one to match the other. The resulting patch creates uncertainty in the plan or forecast and a lack of ownership of the goals by the organization.

**Poor use of managers' expertise**

*Quote:* "I'm convinced our managers spend the entire budgeting period worrying about the budget, not the business."

*Implication:* Managers manage the budget and not the business. As a result, corporate finance, aware of this outcome, is reluctant to involve line managers in reforecasts during the lifetime of the budget. Consequently, these forecasts do not reflect managers' knowledge of changing business conditions and may not improve ongoing budget accuracy as intended.

**It takes too much time**

*Quote:* "How long is our budget cycle? Forever!"

*Implication:* The law of diminishing returns sets in. The never-ending, attritional nature of budgeting can seriously undermine support for, and the subsequent effectiveness and accuracy of the budgets produced.

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"I have no idea where my managers get the numbers from."
Daniel Vasella, CEO of Novartis, recently described management as a “top-down, bottom-up, top-down” process, supporting the view that businesses need to take account of the views and expertise of operational staff to succeed in meeting their strategic goals. Likewise, line manager support is key to the success of enterprise-wide budgeting, and organizations should strive to establish a budget-friendly culture in which line managers have:

- Ownership of their part of the budget
- Involvement throughout the process
- Belief that budgeting is meaningful and adds value to their operation
- Clear downwards communication from senior management of strategy, targets, and changes
- Understanding of a sensible budget process that is logical and cohesive
- Comfort; the process should ideally be efficient, automated, and user-friendly

Organizations must also consider how they approach budgeting as an exercise in itself. The Hackett Group (Hudson, Ohio), an industry analyst firm and a pioneer of innovative thinking in the financial function, recommends the following:

- Reduce the time allowed to build a budget. People will use as much time as they are given, and they will continue to finesse numbers up to and past the deadline.
- Reduce the number of iterations until the budget is finalized. The precision gained in each cycle rarely justifies the extra effort.
- Reduce the time horizon of the budget. Rolling forecasts, by quarter, will be much more accurate than a budget that projects 15 to 18 months into the future.
The procedural problems encountered in budgeting are often exacerbated by the technology used by organizations. The research carried out in 1996 by Hyperion Software found that two of the seven most common problems encountered in budgeting are directly related to the software used by organizations to manage the process:

**Quote:** "My financial analysts are becoming spreadsheet macro programmers."

**Implication:** Over time budget spreadsheet formulas and macros become more and more complex and difficult to understand and maintain. It is a constant battle to force the spreadsheet system to conform to business and user needs. In many organizations only one person understands how the spreadsheet budgeting application works, leaving the budget creation processes vulnerable.

Spreadsheets are fully integrated into most organizational cultures — almost all managers use them. Erroneously, spreadsheets are perceived as having low maintenance and little or no development cost. As a result most organizations rely on spreadsheet software to support their budgeting process. "Visicalc, the Lotus 1-2-3 predecessor, became the original 'PC killer application' in large part because of its ability to participate in the budget process." This creates a number of problems because spreadsheets were not designed to support process driven functions like budgeting.

**Quote:** "It's a nightmare. We are constantly checking and rechecking the figures due to poor spreadsheet version control and multiple re-keying of data."

**Implication:** Organizations are forced to undertake iterations of the budgeting consolidation to correct data rather than to improve the long-term quality of the management information offered by the budget.
Any software not specifically designed to support iterative, inclusive, enterprise-wide processes will struggle to meet the requirements of budgeting.

Problems Encountered in Budgeting with Spreadsheets

- Little centralized control
- Poor data integrity
- Inflexible reporting
- Unmanageable consolidation mechanics
- Slow turnaround
- IT department dependence
- Inability to react and reflect change
- Lack of integration with other systems
- No dynamic financial statements
- Rigid templates for each user involved
- No security at the account level
- No support for multiple line items in an account
- Little facility to view data across different dimensions

Inadequate technology is a common problem. These problems are not limited to spreadsheets alone. Any software not specifically designed to support iterative, inclusive, enterprise-wide processes will struggle to meet the requirements of budgeting. In its 1996 report on budget management software, International Data Corporation excluded all spreadsheets, proprietary general ledger-based systems, and other online analytical processing (OLAP) tools from evaluation altogether.

Inadequate and inflexible budgeting software has additional negative implications. For example, it can limit an organization's ability to adopt other budgeting methods, like ABB or fund budgeting.
Defining a Software Solution

*S*ideal** budgeting software should offer:

*Flexible analysis,* including line item detail, ongoing adjustments, what-if analysis, on-the-fly dimensional analysis, and the ability to satisfy unique budget requirements.

*Powerful automation* to support quick turnaround, consolidation and distribution of budgetary information.

*Comprehensive reporting,* both during the budget process and for ongoing updates, including dynamic financial statements, ad-hoc reports, and currency translation.

*Secure control* to enable centralized maintenance by corporate finance and permit multi-tiered review points and budget version management.

*System integration* for data transfer from disparate supporting systems and to promote data integrity by removing the need for re-keying.

*User orientation* so all users, both finance and operational, no matter how infrequent their involvement, can easily produce complete, accurate, and well-documented budget submissions.

*Enterprise-wide support* delivered by experienced personnel who understand the nature and process of budget preparation.
The following case study provides an in-depth look at how one company applied a software solution to improve its budgeting and planning processes.

ABC Publishing, Inc., a company with over $500 million in annual revenue, needed to improve its budgeting and planning processes.

During its annual budgeting cycle, ABC Publishing performed several iterations of the budget to model the forecast business activity of the coming year, including sales revenue, cost of sales, and operating expenses. But its model had become too large, making it nearly impossible — given its current budgeting tools — to establish and apply corporate standards and controls.

ABC Publishing was leveraging a home-grown legacy budgeting system. The rigidity of the system, however, proved to be a serious obstacle in updating changes in company structure and within departments on a timely basis. Lack of data integrity was also a significant problem. End users began resorting to stand-alone spreadsheet models, but the volume of data quickly outgrew their capabilities. These shortcomings forced the finance department to spend the majority of its time on mechanics, causing the budget to fall further and further behind schedule, leaving no time for analysis, and producing a lack of confidence in the underlying numbers on the part of management.

To improve its budgeting process, ABC Publishing replaced its outdated system with an enterprise-wide software solution that manages the collaborative process of developing, analyzing, and reporting organizational budgets, plans, and forecasts. The new solution provides a hierarchical approach to budgeting that allows division VPs to establish targets and line managers to perform bottom-up budgeting. Additionally, it offers full security and control, while also allowing top-down adjustments.

When ABC Publishing relied on a spreadsheet-based budget process, individuals involved in planning often unknowingly used inaccurate and uncontrolled pricing information. With the new solution, planners centrally develop and maintain planning rates, assumptions, and corporate standards. This provides the finance department with full control over appropriate “drivers” of the budget. End users no longer have to make their best guess on pricing and need only to input relevant business drivers specific to their domain of responsibility (e.g., units to be sold or headcount to be added).
This ability to set business assumptions creates crucial planning relationships among operating expenses, fixed asset purchases, revenue, and balance sheet items that are dynamically impacted by adding or modifying business driver-related data. In ABC Publishing’s case, buying behavior by distribution channel was modeled. Iterations of calculations ultimately yielded finely tuned, more profitable, specific book selections to be sold via each distribution channel.

The solution’s built-in financial intelligence also automatically captures projected total units sold and revenue by various cuts of the organization as the planner is inputting drivers. From the end-user perspective, as business driver assumptions are modified, the units (books) and revenue are recalculated automatically. Likewise, as pricing (or any other) assumptions change, the plan is dynamically and automatically updated.

Another problem that ABC Publishing encountered with its old budgeting system was in verification of data to support final numbers. Too often, last minute adjustments were made to force numbers to meet a target, and line managers rarely saw their impact on the corporate budget prior to the budget deadline. The solution that ABC Publishing implemented offers multiple line item detail — an audit trail that illustrates the meaning behind the numbers for the benefit of managers. Ultimately, the consolidation process allows ABC Publishing’s line managers to see the impact they have on the overall budget.

Creating reports in a spreadsheet environment was difficult because moving data for reporting purposes often impacted embedded calculations within the spreadsheet, creating errors. The new solution provides flexibility for creating customized, dynamic views of the data to meet specific user requirements, and powerful ad hoc reporting on any defined relationship. ABC Publishing also took advantage of multiple display and access options, including graphical report writing and intranet capabilities.

Comparative reporting between actuals, budget, and forecast was very cumbersome in ABC Publishing’s old system. Because actuals were not fully captured at the lowest level of book detail, and comparative reporting was performed using a consolidation tool, ABC Publishing could not fully analyze variances.
The solution allows for analysis between time periods, versions, strategic forecast, and any other defined parameter. Inherent software functionality allows “on-the-fly” variance checking, while also providing the end user with tools that easily create more complex calculations. ABC Publishing modeled this reporting tool to capture standard corporate analysis requirements. End users simply create a calculation once and then can apply it against any data without having to re-create the formula. Management reporting is also flexible and straightforward, and allows for “drill down” capability to the lowest planning element level. Now ABC Publishing knows what drives the budget-to-actual variances.

Allocation functionality is extremely powerful within the software solution. ABC Publishing’s new model automatically captures all departmental expenses, maps them to an appropriate allocation pool, models the allocation methodology, automatically creates the percent by which to allocate, and ultimately allocates all departmental expense to product line.

In just eight weeks, ABC Publishing’s model was completed, tested, and rolled out to 50 users who received brief training. Among the immediate benefits they experienced were:

• Increased accuracy of the sales volume forecast that historically never tied to their multiple sources;
• Efficiency in payroll planning that traditionally never met timeline requirements; and
• Ease of allocation planning.

Allocations now occur automatically when the planner inputs standard business drivers. Time required to tie out numbers was drastically reduced, allowing the finance department time to thoroughly analyze the revenue channels and the impact of pricing on revenue prior to finalizing the budget. Historically, ABC Publishing’s finance department had spent more than 60% of its budget preparation time on mechanics. The painful mechanics are now performed by the software-based budgeting application, allowing finance professionals to spend the majority of their time on higher value, strategic functions such as analysis and building a more detailed understanding of the factors that will affect ABC Publishing’s future.
The majority of the problems encountered with budgeting arise from management of the process itself. Dedicated budget management software can alleviate many of these issues. It can also help to establish a climate in which budgeting can progress from being little more than "a big guesstimation" (R.J. Habig, CFO, PepsiCo) to become a much more useful and accurate management tool.

Hyperion Software’s budgeting and planning solutions, including Hyperion Pillar®, are already delivering these benefits to hundreds of organizations worldwide.

The bottom line: “Enterprises that do not rethink and retool their budgeting process will annually spend 75 percent more effort than enterprises that do.”

The choice for large organizations is either to lose many of the proven planning and control benefits offered by budgeting, or to apply a best-of-class software solution to the process and make it less painful, less costly, and more effective.

Footnotes
2 "Budget", Microsoft® Encarta® 97 Encyclopedia. © 1993-1996 Microsoft Corporation. All rights reserved.
4 Financial Times, February 10, 1997
5,7 V. Mirchandani. Budgeting: Rethinking the Painful Annual Ritual, Gartner Group Research Note, October 26, 1995
To find out how Hyperion Solutions can help your company improve its planning and budgeting, visit us at www.hyperion.com or call 1-800-286-8000.

On August 24, 1998, the merger of Arbor Software and Hyperion Software was completed. The combined company, known as Hyperion Solutions Corporation (Nasdaq: HYSL), is now operating as one global organization under a unified management team, with more than 1,800 employees in 26 countries. Hyperion Solutions products are used by more than 4,400 organizations in over 40 countries. Hyperion Solutions is a leading provider of analytic applications software for reporting, analysis, modeling, and planning. Hyperion Solutions’ market-leading analytic applications, award-winning OLAP (online analytical processing) server, and development and reporting tools help organizations maximize performance and gain competitive advantage by using information as a strategic weapon.