Evaluating Internal Controls
Considerations for Documenting Controls at the Process, Transaction, or Application Level
The Sarbanes-Oxley Act of 2002 (the Act) makes reporting on internal controls mandatory for SEC registrants and their independent auditors. Section 404 of the Act directs the SEC to adopt rules requiring annual reports of public companies to include an assessment, as of the end of the fiscal year, of the effectiveness of internal controls and procedures for financial reporting. Section 404 also requires the company’s independent auditors to attest to and report on management’s assessment. The SEC issued its proposed rules in October 2002 and, if adopted as proposed, they will be effective for companies with fiscal years ending on or after September 15, 2003. Companies should be getting ready now for the comprehensive documentation and evaluation of internal control that will be needed to support management’s assessment and the auditors’ attestation report. Our publication, Preparing for Internal Control Reporting—A Guide for Management’s Assessment under Section 404 of the Sarbanes-Oxley Act (the Guide) (Ernst & Young SCORE Retrieval File No. EE0677), provides a methodology and framework for completing the evaluation.

The methodology outlined in the Guide includes five phases:

- Understand the Definition of Internal Control
- Organize a Project Team to Conduct the Evaluation
- Evaluate Internal Control at the Entity Level
- Understand and Evaluate Internal Control at the Process, Transaction, or Application Level
- Evaluate Overall Effectiveness, Identify Matters for Improvement, and Establish Monitoring System

Guidance on the first two phases of the methodology is provided in the Guide. Detailed guidance on the third phase is provided in the Ernst & Young publication, Evaluating Internal Controls—Considerations for Evaluating Internal Control at the Entity Level (Ernst & Young SCORE Retrieval File No. EE0687). We will be providing more information about the overall evaluation—the last phase—in a future publication. This document is a tool to assist management in performing the fourth phase: understanding and evaluating internal control at the process, transaction, or application level.

Internal control at the entity level can have a pervasive influence on internal control at the process, transaction, or application level. However, unlike the evaluation of entity-level controls, documenting and evaluating controls at this detailed level will be far more specific and likely will require significantly more time to complete.

Evaluating process, transaction, or application level-controls provides a good deal of the evidence management will need to support its overall assessment of the effectiveness of internal control over financial reporting. Management will need to consider controls, including information technology (IT) controls, that serve to prevent or detect errors of importance relating to each significant account.
Management also will need to consider controls that address each of the five components of internal control:

- Control Environment
- Risk Assessment
- Information and Communication
- Control Activities
- Monitoring

Controls relating to several of these components—control environment, risk assessment, and monitoring—often are at a higher level and must be evaluated carefully to determine whether the controls are sensitive enough to prevent or detect errors of importance or fraud relating to each significant account. Many of the more detailed controls that management will identify to support its assessment will be from the information and communication and/or control activities components and primarily relate to specific processes and applications.

Companies with multiple locations, business segments, or reporting units likely will need to sponsor multiple, concurrent documentation efforts to adequately address all significant aspects of the system(s) of internal control in a timely manner. The broader documentation and evaluation efforts required in these situations make it incumbent on management to invest appropriate time in building a project team, developing an approach for identifying and documenting controls, determining the types and amount of required documentation, training all team members, developing appropriate timelines for completing all phases of the work, and developing appropriate two-way communication plans so all project team members are adequately informed about project requirements and issue management and resolution procedures.

Like our previous publications, this document is designed to assist management in transforming COSO’s conceptual framework into a detailed evaluation of internal control over financial reporting. Ernst & Young developed this document based on our extensive knowledge and expertise in evaluating internal controls. While no methodology can consider all possible issues related to an assessment of a company’s internal control, we believe this document provides a useful methodology and framework to assist management in its evaluation.

We would be pleased to discuss the evaluation of internal control over financial reporting with you, and offer our advice and assistance to you.

Ernst & Young
Contents

Overview ......................................................... 1
   A Word About Materiality .................................. 2

Identify Significant Accounts ................................. 5
   Additional Considerations for Companies with Multiple Locations or Reporting Units .................. 6

Identify the Major Classes of Transactions and Related Processes That Influence the Significant Accounts .... 9
   Documentation Considerations for Major Classes of Routine Transactions ......................... 12
   Documentation Considerations for Major Classes of Estimation Transactions ....................... 13
   Documentation Considerations for Major Classes of Non-Routine Transactions ..................... 13
   Documentation Considerations for the Financial Statement Close Process ............................ 13

Ask “What Can Go Wrong” Questions ....................... 15

Identify Controls ............................................. 19
   Types of Controls ........................................ 19
   Considerations for Documenting Controls .................. 20
   Perform Walk-Throughs to Confirm Understanding of Process and Controls ...................... 21
   Perform Walk-Throughs of IT General Controls .................. 22
   Considerations for Documenting Walk-Throughs ................. 22
   Controls Residing Outside the Company .................... 22
   Finalizing the Documentation of Controls .................. 23

Next Steps ....................................................... 25

Appendix A — Example Significant Accounts and Processes for Selected Industries ....................... 27

Appendix B — Example Risk and Control Documentation for Cash Disbursements Process .......... 34

Appendix C — Common IT General Controls .................. 36
   IT Program Acquisition, Implementation and Maintenance Controls ................................. 36
   IT Access Controls ........................................ 36

Appendix D — Example Segregation of Duties Template .................................................. 38
Evaluating Internal Controls

Documenting Controls at the Process, Transaction, or Application Level

Financial Statement Assertions:
- Existence or Occurrence
- Completeness
- Valuation or Measurement
- Rights and Obligations
- Presentation and Disclosure

Processes That Influence the Significant Accounts:
- Flows of transactions
  - Routine
  - Non-Routine
  - Estimation
- IT processes
- Financial Statement Close Process

Significant Processes

For Each Assertion Ask:
- Where are the points in the flow of transactions where errors can occur?
- Example:
  - Accounts: Cash or Payables
  - Process: Disbursements
  - Assertion: Valuation
  What are the manual and programmed procedures to ensure that the amount of a check or transfer agrees with the amount approved for payment?

Controls That Prevent or Detect Errors of Importance* or Fraud:
- Who Performs?
  - Segregation of duties
- Control Dependent on IT?
  - Programmed control
  - Electronic evidence
- Company policies and procedures for:
  - Authorization of transactions
  - Safeguarding of assets
  - Asset accountability

Next Steps

* Errors that individually or collectively could have a material effect on the financial statements
Overview

Some companies already have extensive documentation of their accounting procedures and internal control, such as accounting policy and procedures manuals, information system manuals, and job descriptions. However, most companies likely have not completed a comprehensive documentation and evaluation of the effectiveness of their internal control either as contemplated by the 1992 Report of The Committee of Sponsoring Organizations of the Treadway Commission (COSO) or as required by the Act. Internal audit departments often have documentation of companies’ internal controls and procedures and have tested whether selected controls are operating effectively. Independent auditors also evaluate controls in specific areas. However, prior to the Act the focus of an audit of the financial statements has been to provide an opinion on a company’s financial statements and not to report on internal control. Therefore, it is unlikely companies already will possess sufficient, organized documentation to support management’s assessment of the effectiveness of internal control.

The approach outlined in our publication, Preparing for Internal Control Reporting—A Guide for Management’s Assessment under Section 404 of the Sarbanes-Oxley Act (the Guide), suggests forming a committee or project team to plan and supervise the development, staffing, and execution of the company’s evaluation of internal control.

Once the project team is identified, the first step in evaluating internal control is assessing internal control at the entity level. Additional guidance on this phase is provided in our publication, Evaluating Internal Controls—Considerations for Evaluating Internal Control at the Entity Level.

After that assessment is completed, the project team gains an understanding of the processes and related controls involved in generating financial statement information. The documentation approach described herein for accomplishing this understanding focuses on:

(1) Determining significant accounts or groups of accounts, beginning at the financial statement caption or footnote disclosure level, that can contain errors of importance or that should be evaluated based on other factors (e.g., susceptibility to loss or fraud),
(2) Identifying the major classes of transactions and related processes, including information technology (IT) processes, that influence the significant accounts,

(3) Determining the types of errors that can occur in initiating, recording, processing, and reporting transactions, and

(4) Identifying controls, including IT controls, that serve to prevent or detect and correct errors of importance on a timely basis, as well as to prevent and detect fraud.

The completion of these phases—evaluating internal control at the entity level and then understanding and evaluating internal control at the process, transaction, or application level—will provide the project team with information necessary to evaluate the overall effectiveness of controls in the final phase of the methodology. In the final phase, the project team will also perform procedures to determine that the controls are in fact operating as designed. Additional information about evaluating the overall effectiveness of internal control, including strategies for determining that controls are operating as designed, will be provided in a future publication.

We anticipate management for some public companies will choose to incorporate its documentation and evaluation of internal control over financial reporting with broader risk management programs that also may address the other aspects of the COSO definition of internal control (i.e., effectiveness and efficiency of operations, compliance with laws and regulations), and/or other aspects of enterprise risk management. Whether performed as part of a broader program, or as a stand-alone project, management’s documentation and evaluation will need to address all five interrelated components of internal control at a level sufficient to support management’s assertion on the effectiveness of internal control over financial reporting and the independent auditors’ attestation report thereon.

A Word About Materiality
Current attestation standards indicate an assertion that internal control over financial reporting is “effective” implies that controls are effective in preventing and detecting errors of importance (i.e., errors that individually or collectively could have a material effect on the financial statements).

It currently is not clear whether the final rules issued by the SEC to implement the requirements of Section 404 of the Act or the standards adopted by the Public Company Accounting Oversight Board (the Board) will specifically discuss the thresholds that management should establish for determining significant deficiencies and material weaknesses in order to fulfill their reporting responsibilities. Regardless of whether the final rules and standards will specify or require public companies to develop materiality thresholds, the project team should consider materiality concepts in developing a strategy and approach for documenting and evaluating internal control over financial reporting.

Management generally designs its system of internal control to prevent or detect and correct all errors in financial reporting or otherwise establishes relatively low thresholds for errors it is willing to tolerate in the initiating, recording, processing and reporting of transactions. The project team generally will establish higher materiality thresholds to document and evaluate internal controls for purposes of its assessment. However, those materiality thresholds should not be set so high that the team fails to adequately address all significant aspects of the system(s) of internal control.

Materiality should be considered at two levels: at the overall level, as it relates to the financial statements taken as a whole; and at the individual account level. At the financial level, materiality is used in considering whether a material weakness in internal control exists. A material weakness in internal control is defined as a significant deficiency in which the design or operation of one or more of the internal control components does not reduce to a relatively low level the risk that misstatements, whether caused by error or fraud, in amounts that would be material in relation to the financial statements, may occur and not be detected within a timely period by employees in the normal course of performing their assigned functions.

Materiality at the individual account level should be sufficiently low to identify a significant deficiency in internal control over the individual account or group of accounts. A significant deficiency is a deficiency that could adversely affect the organization’s ability to initiate, record, process, or report financial data consistent with the assertions of management, explicit or otherwise, with regard to the financial statements. The lower threshold at the
account level generally would provide the project team the opportunity to consider whether the significant deficiencies identified, when considered in the aggregate, could rise to the level of a material weakness. When establishing the lower threshold, management also may wish to consider the ability to identify control matters that individually do not rise to the level of significant deficiencies. Applying materiality concepts at the individual account level is further described in the next section, *Identify Significant Accounts*.

For companies with multiple locations, business segments, or reporting units, the project team likely will need to employ materiality concepts to make sure the control documentation and evaluation efforts adequately address all significant aspects of the system(s) of internal control. Additional considerations for these types of companies are provided in the next section.
Documenting Controls at the Process, Transaction, or Application Level

Financial Statement Assertions:
- Existence or Occurrence
- Completeness
- Valuation or Measurement
- Rights and Obligations
- Presentation and Disclosure

Processes That Influence the Significant Accounts:
- Flows of transactions
  - Routine
  - Non-Routine
  - Estimation
- IT processes
- Financial Statement Close Process

For Each Assertion Ask:
- Where are the points in the flow of transactions where errors can occur?
- Example:
  Accounts: Cash or Payables
  Process: Disbursements
  Assertion: Valuation
  What are the manual and programmed procedures to ensure that the amount of a check or transfer agrees with the amount approved for payment?

Significant Accounts Selected Based Upon:
- Errors of importance*
- Size and composition
- Susceptibility to loss or fraud
- High transaction volume
- Transaction complexity
- Subjectivity in determining account balance
- Nature of the account

Controls That Prevent or Detect Errors of Importance* or Fraud:
- Who Performs?
  - Segregation of duties
- Control Dependent on IT?
  - Programmed control
  - Electronic evidence
- Company policies and procedures for:
  - Authorization of transactions
  - Safeguarding of assets
  - Asset accountability

* Errors that individually or collectively could have a material effect on the financial statements
Identify Significant Accounts

The starting point for identifying the significant processes over which internal controls are applied is to identify significant accounts at the consolidated financial statement caption or footnote disclosure level. This section discusses the process for identifying significant accounts or groups of accounts.

An account (or group of accounts) is significant if it can contain errors of importance or, in management’s judgment, should be evaluated because of one or more other factors. Factors to consider in determining whether an account or group of accounts is significant or otherwise should be evaluated include:

- Size and composition of the account, including its susceptibility to loss or fraud
- Volume of activity and the size, complexity and homogeneity of the individual transactions processed through the account
- Subjectivity in determining the account balance (i.e., the extent to which the account is affected by judgments)
- Nature of the account (e.g., suspense accounts generally warrant greater attention)
- Accounting and reporting complexities associated with the account
- Existence of related party transactions
- Changes in account characteristics (e.g., the introduction of new complexities or subjectivities, new types of transactions)

After identifying the significant accounts at the consolidated financial statement level, the project team should consider separating the components of an account or group of accounts to the extent the components are subject to differing risks (and/or different controls). For example, the allowance for doubtful accounts generally is considered a significant account separate from accounts receivable since the allowance is more subjective and the transactions that affect the balance are driven by management estimation processes rather than routine transaction processing (e.g., sales, cash receipts).

Organizational structure might be another reason for separating components of an account. For example, if a company has five separate business units, each with unique management and accounting processes, it generally will be necessary to identify and evaluate processes and controls over the significant accounts or groups of accounts of each separate business unit. Likewise, the project team may determine that other segmentation (e.g., business segment, location, country, operating system) will be necessary to efficiently and effectively identify, document and evaluate controls. Generally, when the components comprising the account or group of accounts are subject to different risk profiles and control environments, they should be considered separately when documenting and evaluating the controls that mitigate the risk of material misstatements.

Illustration 1 depicts example significant accounts for a medium-sized manufacturing company operating in one business segment with three significant manufacturing locations, three significant sales locations, and highly centralized corporate accounting and administrative functions. The areas noted with a (✔) indicate significant
accounts or groups of accounts that, under the scenario illustrated, also might need to be evaluated in part at the manufacturing or sales locations.

Illustration 1 shows how significant asset, liability, or shareholders’ equity accounts are grouped with the corresponding income or expense accounts that are affected by the same classes of transactions. For example, both accounts receivable and the corresponding sales account are affected by a sales transaction. Appropriate grouping of accounts at the outset will streamline the documentation process and reduce potential documentation redundancy. Appendix A provides additional illustrations of significant account groupings for selected industries.

We encourage project teams for larger, decentralized organizations to pay particular attention to the account groupings of the various business units to help limit unnecessary variations in documentation approaches that may be difficult to aggregate in later stages of the project. The project team also should document at this point the specific general ledger accounts included in each grouping of significant accounts. This will aid the team in determining that there are no unintended gaps in the subsequent documentation process and also will limit possible duplication of work.

<table>
<thead>
<tr>
<th>Significant Accounts to Document</th>
<th>Manufacturing Locations</th>
<th>Sales Locations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Corporate</td>
<td>A</td>
</tr>
<tr>
<td>Cash and Cash Equivalents</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Accounts Receivable and Related Income Statement Activity</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Allowance for Doubtful Accounts and Bad Debt Expense</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Inventories and Related Income Statement Activity</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Inventory Reserves and Related Income Statement Activity</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Prepaid, Other Current Assets and Related Income Statement Activity</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Property, Plant and Equipment and Depreciation Expense</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Intangible Assets and Related Amortization</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Accounts Payable and Related Income Statement Activity</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Income Taxes (Current, Deferred) and Related Income Statement Activity</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Accrued Liabilities and Related Income Statement Activity</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Debt and Related Interest Expense</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Pension, OPEBs and Related Income Statement Activity</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Commitments, Contingencies and Related Expense</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Stockholders’ Equity and Stock Compensation Expense</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Payroll Expense and Related Accrued Liabilities</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

This also is an appropriate time for the project team to document the financial statement assertions that are relevant to each of the significant accounts or groups of accounts identified. Financial statement assertions are described and discussed in a later section of this publication, *Ask “What Can Go Wrong” Questions*, where the project team utilizes the assertions to identify controls that are needed to prevent or detect errors of importance or fraud. Project team members not familiar with this concept should refer to that section. An understanding of the relevant assertions for a particular account or group of accounts will assist the project team in identifying the major classes of transactions and related processes and accounting activities that influence the significant accounts in the next step of the documentation process.

**Additional Considerations for Companies with Multiple Locations or Reporting Units**

The project team for companies with operations in multiple locations or comprised of several reporting units will need to develop an efficient and effective approach that, at a minimum, identifies significant deficiencies across the various locations and reporting units that alone or in the aggregate may be material weaknesses. The factors the
project team will need to consider, and the approach it will most likely develop, are similar to the factors and approach used by auditors in performing an audit of the financial statements of a company with multiple locations or reporting units. It may not be necessary to document and evaluate controls at each location or for each reporting unit. However, those locations or reporting units excluded should not be capable of being material in the aggregate.

Some factors the project team should consider in developing its approach to selecting locations or reporting units include the following:

- The similarity of business operations and internal control at the various locations or reporting units
- The degree of centralization of records
- The effectiveness of the control environment, particularly management’s direct controls over the exercise of authority delegated to others
- The nature and amount of transactions executed and related assets at the various locations or reporting units and to what degree the location or reporting unit could create an obligation to the entity
- The nature and extent of monitoring controls over the various locations or reporting units

Determining the overall scope of the documentation and evaluation effort for companies with multiple locations or reporting units will require the project team to apply these factors to the significant accounts identified. The project team generally will find it easier to scope the project when the balances or activities comprising a significant account are concentrated in one or a small number of locations or reporting units. In these instances, the project team likely will focus its efforts on those locations or reporting units and conclude that the other locations or reporting units are not significant to management’s assessment of controls.

More judgment will be required in situations where the balances or activities comprising significant accounts are dispersed throughout numerous locations or reporting units with no one location or reporting unit being significant to management’s assessment. In these instances, the project team will need to apply the factors listed above in determining the overall project scope. The project team may be able to streamline the documentation and evaluation effort if the various locations or reporting units are subject to common processing, thus allowing the project team to evaluate controls over those processes centrally.

Additionally, if aspects of the processing for the various locations or reporting units are decentralized but follow standardized procedures and processing controls, the project team may be able to document and evaluate those processes and controls once and then limit the onsite procedures to confirming that the controls were implemented across the various locations or reporting units. In contrast, where the operations of the various locations or reporting units are not standardized or the processing is not centralized, the project team will need to document and evaluate processes and controls for a sufficient number of the individual locations or reporting units so that those locations or reporting units excluded are not capable of being material in the aggregate.

The project team may wish to use scope designations to describe the levels of documentation and evaluation effort required for locations or reporting units. For example:

- Comprehensive — Location or reporting unit is a material component of the company and the project team will need to document and evaluate processes and controls for all significant accounts of the location or reporting unit
- Limited — Specific accounts of the location or reporting unit are significant and the project team will need to document and evaluate processes and controls associated with those accounts
- Excluded — Location or reporting unit is not significant to the overall assessment of internal control

The documentation and evaluation effort for locations or reporting units designated as limited scope will vary depending on the significance of the location to management’s assessment and its evaluation of the risk of errors of importance or fraud. We encourage project teams to provide specific direction on which accounts to document to ensure that the effort is consistent with management’s overall approach to the assessment of internal control.
Documenting Controls at the Process, Transaction, or Application Level

**Significant Accounts Selected Based Upon:**
- Errors of importance* 
- Size and composition 
- Susceptibility to loss or fraud 
- High transaction volume 
- Transaction complexity 
- Subjectivity in determining account balance 
- Nature of the account

**Controls That Prevent or Detect Errors of Importance* or Fraud:**
- Who Performs?
  - Segregation of duties
- Control Dependent on IT?
  - Programmed control
  - Electronic evidence
- Company policies and procedures for:
  - Authorization of transactions
  - Safeguarding of assets
  - Asset accountability

---

**Financial Statement Assertions:**
- Existence or Occurrence
- Completeness
- Valuation or Measurement
- Rights and Obligations
- Presentation and Disclosure

**Processes That Influence the Significant Accounts:**
- Flows of transactions
  - Routine
  - Non-Routine
  - Estimation
- IT processes
- Financial Statement Close Process

**For Each Assertion Ask:**
- Where are the points in the flow of transactions where errors can occur?
- Example:
  - Accounts: Cash or Payables
  - Process: Disbursements
  - Assertion: Valuation

  What are the manual and programmed procedures to ensure that the amount of a check or transfer agrees with the amount approved for payment?

---

* Errors that individually or collectively could have a material effect on the financial statements
Identify the Major Classes of Transactions and Related Processes That Influence the Significant Accounts

After identifying the significant accounts, the project team will identify the major classes of transactions, significant processes, and related accounting activities and controls that affect those accounts. Significant processes and related accounting activities are those that are involved in processing major classes of transactions (e.g., sales, purchases of goods or services, recording depreciation expense) affecting significant accounts or groups of accounts. Accounting activities also include activities to develop and record key accounting estimates or to complete the financial statement close process at the end of an accounting period.

Companies might define or label processes differently. Some companies have a stronger focus on managing the business from a process perspective, while other companies have a more traditional view of accounting processes separate from the operational aspects of the business. Irrespective of the approach used, the objective is to document how the major classes of transactions are initiated, recorded, processed, and reported.

We anticipate that project teams of many companies will find that major classes of transactions affecting the significant accounts or groups of accounts rarely are encompassed within a single process. In these situations the project team may conclude it is more effective to focus on significant transaction flows and related accounting activities and controls to understand the major classes of transactions.

When starting with processes, we suggest the project team first correlate business processes to significant financial statement accounts. An efficient way to make this correlation is to consider the accounts at a sufficient level of detail. An example of this is segregating inventories between (a) raw materials (purchasing), (b) work in progress (manufacturing), (c) finished goods (distribution), and (d) consumables (maintenance). The project team can then link the major classes of transactions that are embedded in these processes to the significant accounts or groups of accounts.

Different types of transactions have different levels of inherent risk associated with them and require different levels of management supervision and involvement. For each process identified, we recommend categorizing the processes using three transaction types—routine, non-routine, and estimation—for the same reason.

Routine transactions are frequently recurring financial activities reflected in the books and records in the normal course of business (e.g., sales, purchases, cash receipts, cash disbursements, payroll). Non-routine transactions are financial activities that occur only periodically (e.g., taking physical inventory, calculating depreciation, adjusting for foreign currencies). A distinguishing feature of non-routine
transactions is that data involved generally are not part of the routine flow of transactions. Estimation transactions are financial activities that involve management judgments or assumptions in formulating an accounting balance in the absence of a precise means of measurement (e.g., determining the allowance for doubtful accounts, establishing warranty reserves, assessing assets for impairment).

Another important attribute to consider for each significant process is its dependence on IT. The project team generally will need to document the IT system used to process the major classes of transactions (e.g., data center, mainframe, client/server, personal computers). Further, in today’s highly automated business environments, flows of transactions typically are automated and management often relies on programmed controls (i.e., programmed control procedures over transaction data subject to computer processes at the application level) to ensure the accuracy and completeness of data.

Because many companies have a high volume of transactions, programmed controls typically are a key component of the design of processes over routine and non-routine transactions. In addition, even though processes over estimation transactions generally are manual operations involving significant management judgment, normally their accuracy depends indirectly on data elements generated via other computerized processes. The project team therefore may require the skills of IT specialists to understand the flows of transactions through the significant processes and to identify, document and evaluate relevant programmed controls.

The level of understanding and corresponding documentation of the major classes of transactions and the processes that support them should be at a level sufficient to understand the flow of each major class. The objective of this step is to identify and document the significant records, documents, and basic processing procedures in use, and to identify and document the personnel and functional areas that perform the various processing activities. This documentation serves as a basis for identifying where errors or fraud can occur, which is discussed in the next section.

Most processes involve a series of tasks such as capturing input data, sorting and merging data, making calculations, updating transactions and master files, generating transactions, and summarizing and displaying or reporting data. The processing procedures relevant to the project team in understanding the flow of transactions generally are those activities required to initiate, record, process, and report transactions. Such activities include, for example, initially recording sales orders, preparing shipping documents and invoices, and updating the accounts receivable master file. The relevant processing procedures also include procedures for correcting and reprocessing previously rejected transactions and for correcting erroneous transactions through adjusting journal entries.

In the course of documenting the processing procedures, the project team may identify many of the controls in use. Thus, while the emphasis during this phase of documentation is not necessarily to identify the presence or absence of controls, the project team should be alert to the possible absence of controls, and to the points where errors can occur and controls are needed. Also, this step often identifies programmed computer routines and data files that may require further review when the project team identifies and documents the relevant IT controls.

Documenting how transactions are initiated, recorded, processed, and reported in a more complex process frequently will require collaboration among various company personnel involved in the process (users) and IT personnel, since users are less likely to have a sufficient understanding of all relevant aspects of processing transactions. In a more complex environment, many processes can be supported by the same computer application. These situations may require the project team to consider in more detail access controls and/or system privilege settings for the application, which are discussed in more detail in the section entitled, Identify Controls.

Illustration 2 depicts a typical interaction of significant accounts and processes for a medium-sized manufacturing company operating in one business segment. As depicted in Illustration 1 in the previous section, Identify Significant Accounts, there might be multiple components of an account or group of accounts, each affected by unique processes (e.g., accounts receivable and related processes,
portfolios with complex financial instruments and derivatives, while others may have little or no foreign currency or other derivatives exposure. In addition, some manufacturing entities have significant pension and other postemployment benefit (OPEB) liabilities, while others have a limited number of or no pension or OPEB plans.

### Illustration 2—Medium-Sized Manufacturing Company

<table>
<thead>
<tr>
<th>Example Processes</th>
<th>Transaction Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Statement Close</td>
<td>Non-Routine</td>
</tr>
<tr>
<td>Cash Receipts</td>
<td>Routine</td>
</tr>
<tr>
<td>Cash Disbursements</td>
<td>Routine</td>
</tr>
<tr>
<td>Payroll</td>
<td>Routine</td>
</tr>
<tr>
<td>Purchase and Pay for Assets and Expenses</td>
<td>Routine</td>
</tr>
<tr>
<td>Inventory Costing and Cost of Sales</td>
<td>Routine</td>
</tr>
<tr>
<td>Sales and Accounts Receivable</td>
<td>Routine</td>
</tr>
<tr>
<td>Account for Stock Options</td>
<td>Non-Routine</td>
</tr>
<tr>
<td>Adjust for Foreign Currencies</td>
<td>Non-Routine</td>
</tr>
<tr>
<td>Amortize Prepaid and Intangible Assets</td>
<td>Non-Routine</td>
</tr>
<tr>
<td>Assess Assets for Impairment</td>
<td>Estimation</td>
</tr>
<tr>
<td>Calculate Income Taxes</td>
<td>Non-Routine</td>
</tr>
<tr>
<td>Depreciate Property, Plant, and Equipment</td>
<td>Non-Routine</td>
</tr>
<tr>
<td>Estimate Commitments and Contingencies</td>
<td>Estimation</td>
</tr>
<tr>
<td>Estimate Excess and Obsolete Inventory Reserves</td>
<td>Estimation</td>
</tr>
<tr>
<td>Estimate Pension and OPEB Liabilities and Expense</td>
<td>Estimation</td>
</tr>
<tr>
<td>Estimate Allowance for Doubtful Accounts and Bad Debt Expense</td>
<td>Estimation</td>
</tr>
<tr>
<td>Estimate Warranty Reserve and Expense</td>
<td>Estimation</td>
</tr>
<tr>
<td>Lower of Cost or Market Calculation</td>
<td>Estimation</td>
</tr>
<tr>
<td>LIFO Calculation</td>
<td>Non-Routine</td>
</tr>
<tr>
<td>Physical Inventory (Count and Compilation)</td>
<td>Non-Routine</td>
</tr>
<tr>
<td>Record and Monitor Debt</td>
<td>Non-Routine</td>
</tr>
</tbody>
</table>
Appendix A provides additional examples of the typical interaction of significant accounts and processes for other industries (e.g., banks and savings institutions, technology and communications companies, retail companies).

As depicted in Illustration 2, a significant process that should be considered for all companies is the financial reporting process—the process of “closing the books” and preparing the financial statements (also referred to as the financial statement close process). The understanding of the company’s significant processes and how they interrelate with the company’s financial reporting process will provide the project team with a basis for what additional information is required to understand the financial reporting process.

The financial reporting process typically includes:

- The procedures used to enter transaction totals into the general ledger.
- The procedures used to initiate, record, and process journal entries in the general ledger.
- Other procedures used to record recurring and nonrecurring adjustments to the financial statements, such as consolidating adjustments, report combinations, and reclassifications.
- The procedures for drafting financial statements and related footnote disclosures.

**Documentation Considerations for Major Classes of Routine Transactions**

The project team should examine or prepare and, as appropriate, retain copies of documentation that is helpful in providing a basic understanding of the flow of transactions. This documentation should include how transactions are initiated, recorded, processed, and reported. The project team also should consider other existing documentation (e.g., process models, flowcharts, procedural manuals, job descriptions, documents, forms).

The documentation reflects, to the extent practicable, all the relevant processing procedures, whether performed manually or automated. The project team generally obtains copies of or prepares certain information technology documentation, such as systems narratives, systems diagrams, and flowcharts (showing the sequence of significant programs, transaction files, and master files involved in the application, but not the detailed program logic).

The project team does not need to obtain or prepare documentation about every detail of the flow or follow every typical data element (e.g., sales invoice updates the customer relationship management system) from initiation to its final recording. However, the project team should document enough information about the flow of transactions to assist in identifying where errors of importance can occur. Thus, the documentation generally shows those activities within a process where data is initiated, transferred, or otherwise changed.

Since the primary purpose of this documentation is to help identify where errors or fraud can occur, the project team can concentrate on documenting:

- Major input sources
- Important data files (e.g., customer and price master files), documents, and records
- Significant processing procedures, including on-line entry and updating processes
- Important output files, reports, and records
- Functional segregation of duties (i.e., showing the processing by department)

A lack of segregation of duties exists if any individual performs incompatible activities or if access controls of a computer application grant users inappropriate or excessive access to functionality (e.g., if an individual is in a position to both perpetrate and conceal fraud in the normal course of performing his or her duties). Thus, the project team should consider whether any individuals (1) perform processing procedures that are incompatible with each other, (2) perform both processing procedures and related controls, or (3) have inappropriate access to the accounting records and related assets. We recommend project teams develop methods for identifying inadequacies in the segregation of duties for each major class of transactions. Appendix D displays an example segregation of duties template for the cash disbursements process. The project team can obtain segregation of duties templates for other classes of routine transactions from their Ernst & Young engagement team or a local Ernst & Young representative.
Documentation Considerations for Major Classes of Estimation Transactions

The project team should document the understanding obtained from discussions with process owners, review of documentation, and observation of the process. The project team should retain, as appropriate, copies of the relevant documentation, and consider preparing narratives, diagrams, and/or flowcharts to document the process. Specifically, the project team should document:

- The data used to make the estimate (e.g., the aged listing of accounts receivable may be used to identify potential bad debts)
- The relevant factors and assumptions that company personnel consider in making the estimate, including the reasons for the particular assumptions
- The techniques (i.e., the models) company personnel use to apply the assumptions to the data, including the procedures to collect, calculate, and aggregate the relevant data
- The frequency with which the estimation transaction occurs
- The degree of subjectivity involved
- The company personnel (or third party specialists) involved in making the estimate

Documentation Considerations for Major Classes of Non-Routine Transactions

The project team should document the understanding obtained from discussions with process owners, review of documentation, and observation of the process. The project team should retain, as appropriate, copies of the relevant documentation, and consider preparing narratives, diagrams, and/or flowcharts to document the process. Specifically, the project team should document:

- The procedures or forms the company uses (e.g., the written instructions used in a physical inventory)
- Any computer applications the company uses in the accounting activities (e.g., applications, purchased or internally-developed, used to calculate depreciation or to capture the physical inventory counts through barcode scanning)
- The assumptions, if any, employed in the transaction (e.g., the average useful lives employed in calculating depreciation)
- The frequency with which the non-routine transaction occurs
- The company personnel involved in the accounting activities

Documentation Considerations for the Financial Statement Close Process

The project team should document each significant component (e.g., consolidation procedures, preparation of elimination entries) of the overall process, including an understanding of the inputs, procedures performed, flow of activities, and outputs of each component of the overall process used to produce the financial statements and disclosures. The documentation may include copies of existing documentation, or the project team may need to have the responsible process owners prepare narratives, diagrams, and/or flowcharts to document the process.
Significant Accounts Selected Based Upon:
- Errors of importance*
- Size and composition
- Susceptibility to loss or fraud
- High transaction volume
- Transaction complexity
- Subjectivity in determining account balance
- Nature of the account

Inherent and Key Business Risks

Financial Statement Assertions:
- Existence or Occurrence
- Completeness
- Valuation or Measurement
- Rights and Obligations
- Presentation and Disclosure

Processes That Influence the Significant Accounts:
- Flows of transactions
  - Routine
  - Non-Routine
  - Estimation
- IT processes
- Financial Statement Close Process

For Each Assertion Ask:
- Where are the points in the flow of transactions where errors can occur?
- Example:
  - Accounts: Cash or Payables
  - Process: Disbursements
  - Assertion: Valuation

  What are the manual and programmed procedures to ensure that the amount of a check or transfer agrees with the amount approved for payment?

Controls That Prevent or Detect Errors of Importance* or Fraud:
- Who Performs?
  - Segregation of duties
- Control Dependent on IT?
  - Programmed control
  - Electronic evidence
- Company policies and procedures for:
  - Authorization of transactions
  - Safeguarding of assets
  - Asset accountability

* Errors that individually or collectively could have a material effect on the financial statements
Considering the types of errors that can occur at the process, transaction, or application level is a key step for assuring that the project team appropriately focuses on those controls that are both relevant and effectively designed to prevent and detect errors of importance or fraud. The project team will need to determine the level of detail that is appropriate based on its knowledge of the financial reporting risks associated with each significant process being evaluated and their relative importance to the overall financial statements (relatively small errors in enterprise-wide processes could have potentially pervasive effects, whereas potentially larger errors in isolated or less significant processes may not).

In identifying the types of errors that can occur, the project team considers the relevant financial statement assertions for the significant accounts. Financial statement assertions are representations by company management, explicit or otherwise, that are embodied in the financial statements. These assertions are:

<table>
<thead>
<tr>
<th>Financial Statement Assertions</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Existence</strong></td>
<td>An assertion that an asset or a liability exists at a point in time. Controls exist that ensure only valid assets and liabilities are recorded, assets are appropriately safeguarded, and that periodic accountability is maintained.</td>
</tr>
<tr>
<td><strong>Occurrence</strong></td>
<td>An assertion that a recorded transaction or event actually took place during the period. Controls exist to ensure fictitious or duplicate transactions are not included in the records.</td>
</tr>
<tr>
<td><strong>Valuation or Measurement</strong></td>
<td>An assertion that an asset or liability is recorded at an appropriate amount. An assertion that a transaction or event is recorded at the proper amount and revenue or expense is allocated to the proper period. Controls exist to ensure that transactions are recorded at correct monetary amounts.</td>
</tr>
<tr>
<td><strong>Completeness</strong></td>
<td>An assertion that there are no unrecorded assets, liabilities, transactions or events, or undisclosed items. Controls exist to ensure actual transactions are not omitted from the records, all transactions are reflected in the proper accounting period, transactions are recorded in the correct accounts, all charges and credits in the underlying records are accumulated correctly, and accumulated totals are correctly transferred to the general ledger.</td>
</tr>
<tr>
<td><strong>Rights and Obligations</strong></td>
<td>An assertion that an asset or a liability pertains to the company at a point in time. Controls exist to ensure that the entity has legal title to recorded assets and rights to assets are only assigned with appropriate authorization, and only liabilities of the company are recorded.</td>
</tr>
<tr>
<td><strong>Presentation and Disclosure</strong></td>
<td>An assertion that an item is properly classified, described, and disclosed in the financial statements.</td>
</tr>
</tbody>
</table>
The financial statement assertions are considered at the process, transaction, or application level. However, for most accounts the “presentation and disclosure” assertion is considered in connection with the financial statement close process or at the overall entity level.

For each significant process, the project team should identify the points within the flow of transactions where data is initiated, transferred, or otherwise changed and where there can be a failure (including a failure due to fraud) to achieve the financial statement assertions; that is, identify “what can go wrong” in the processing stream. These are the points where controls are needed.

Asking “what can go wrong” questions will assist the project team in:

- Identifying the points within the flow of transactions where there can be failures to achieve the financial reporting objectives (i.e., the points where errors can occur that can result in inaccurate assertions in the financial statements)
- Formulating the additional questions the project team will need to answer to identify the appropriate controls

Illustration 3 provides example “what can go wrong” questions for a cash disbursements process.

An important consideration in evaluating financial statement assertions is whether there are controls in place to identify and reject erroneous data and, when applicable, to correct and resubmit the data in the normal processing stream. To identify and understand controls, the project team should use the financial statement assertions together with their understanding of the company’s significant processes to:

- Identify what can go wrong in the processing stream (i.e., identify where data errors can occur)
- Determine whether the company/reporting unit has prescribed controls to prevent or detect and correct errors in a timely manner as well as to prevent or detect fraud

Processes over non-routine and estimation transactions often involve higher risk because they are more likely to be influenced by business risks and management decisions. In particular, when considering the types of errors that can occur in a process over estimation transactions and developing “what can go wrong” questions, the project team may need to consider:

- Are assumptions appropriate (i.e., are they based on reasonable interpretations of present circumstances and on the best available information)?
- Is the data used in making the estimate likely to be both relevant and reliable?
- Is the model used to make an estimate appropriate, and is it applied correctly?

These “what can go wrong” questions are the foundation the project team can use to determine whether controls properly address the risks related to material misstatements, omissions, and discrepancies in the financial statements. By considering “what can go wrong” questions for each class of transaction, the project team can improve its ability to identify the significant risks related to the financial statements, while minimizing time spent on less relevant aspects of the process.
The number of questions the project team should pose depends, among other things, upon the complexity of the process and the number of opportunities for errors to occur and remain undetected.
Documenting Controls at the Process, Transaction, or Application Level

**Inherent and Key Business Risks**

**Financial Statement Assertions:**
- Existence or Occurrence
- Completeness
- Valuation or Measurement
- Rights and Obligations
- Presentation and Disclosure

**Processes That Influence the Significant Accounts:**
- Flows of transactions
  - Routine
  - Non-Routine
  - Estimation
- IT processes
- Financial Statement Close Process

**For Each Assertion Ask:**
- Where are the points in the flow of transactions where errors can occur?
- Example:
  - Accounts: Cash or Payables
  - Process: Disbursements
  - Assertion: Valuation

What are the manual and programmed procedures to ensure that the amount of a check or transfer agrees with the amount approved for payment?

**Significant Accounts Selected Based Upon:**
- Errors of importance*
- Size and composition
- Susceptibility to loss or fraud
- High transaction volume
- Transaction complexity
- Subjectivity in determining account balance
- Nature of the account

**Controls That Prevent or Detect Errors of Importance* or Fraud:**
- Who Performs?
  - Segregation of duties
- Control Dependent on IT?
  - Programmed control
  - Electronic evidence
- Company policies and procedures for:
  - Authorization of transactions
  - Safeguarding of assets
  - Asset accountability

* Errors that individually or collectively could have a material effect on the financial statements
Identify Controls

At this point, the project team considers controls over each significant process that address the “what can go wrong” questions for the relevant assertions. The objective is to identify the controls that provide reasonable assurance that errors relating to each of the relevant financial statement assertions are prevented, or that any errors that occur during processing are detected and corrected.

Management generally designs, and places in operation, controls over processes to ensure that the operating, financial reporting, and compliance objectives of each process are achieved. However, for purposes of evaluating the effectiveness of internal control over financial reporting under the Act, the project team is concerned with controls that address the financial reporting objective. Therefore, the project team should identify controls related to the initiation, recording, processing, and reporting of transactions.

In some situations, the project team may identify high-level management controls that are relevant to both operating and financial reporting objectives. If these higher-level controls are sufficiently sensitive to prevent or detect errors of importance for one or more assertions, the project team may identify and evaluate them. An example of a higher-level control is a reconciliation of quantities shipped per the shipping log to quantities billed per the sales journal.

While higher-level controls may be present, the project team should not focus solely on such controls because they generally are dependent on controls over processes or activities at the transaction level. The project team also should understand processes or activities at the transaction level in order to identify and understand controls that address all relevant assertions. The project team’s conclusions about the effectiveness of the related controls may be based on a combination of higher-level controls and controls at the transaction level.

Types of Controls

Controls may relate to any of the five components of internal control (i.e., the control environment, risk assessment process, information and communication, control activities, and monitoring) provided the controls are relevant to the points at which errors or fraud can occur and are likely to be effective in reducing the risk of error or fraud. Controls that management relies on to prevent or detect and correct errors, or to prevent or detect fraud, may exist in any of the five components. The project team should identify and document relevant controls in each of the five components.

Two broad types of controls and their description are listed below.

<table>
<thead>
<tr>
<th>Control Types</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevent Controls</td>
<td>Procedures designed to prevent an error or fraud. Prevent controls are normally applied at a single transaction level.</td>
</tr>
<tr>
<td>Detect Controls</td>
<td>Policies and procedures that are designed to monitor the achievement of the relevant process objectives, including identifying errors or fraud. Detect controls can be applied to groups of transactions.</td>
</tr>
</tbody>
</table>
The project team should keep in mind that, to be effective, systems of internal control often have to include strong prevent controls in addition to detect controls. For example, where there is a high volume of transactions, the lack of prevent controls significantly increases the risk of errors and accordingly increases the need for particularly sensitive detect controls. In the absence of prevent controls, a high number of errors can render detect controls ineffective in detecting and correcting errors in a timely manner.

The categorization of a control by the project team may depend on how and for what purpose it is used, and the way in which the project team views it. Ultimately, what matters is not the categorization but whether the control is effective in reducing the risk of errors of importance or fraud.

Prevent and detect controls can reside both within and outside of computerized environments. Within the computerized environment, prevent and detect controls are often referred to collectively as “programmed or application controls” in that their implementation and ongoing effectiveness depends on the consistent application of an embedded software program/application or “routine” to transactions processed by that application. Programmed controls usually are either programmed control procedures (e.g., edit, matching, or reconciliation routines) or computer processes (e.g., calculations, on-line entries, automatic interfaces between systems). Identifying controls frequently will require collaboration with both process owners and IT personnel.

If the project team determines that management is relying on programmed controls or that identified controls are dependent on IT-generated data (i.e., electronic evidence), it should ask a second question: “What ensures that programmed controls are operating effectively?” The response may be that (1) user procedures verify the accuracy of the processing (e.g., manually recompute complex calculations or reconcile IT reports to manual batch totals) and/or (2) management relies on the IT system to effectively execute the control or produce the data. When (2) is the response, the project team should consider the effect of IT general controls in evaluating the effectiveness of controls that are dependent on the IT system or IT-generated data.

IT general controls are IT processes and related controls that generally are applied above the computer application level; however, they may be performed on a single platform for a single application. IT general controls, or IT process controls, are designed to:

- Ensure that changes to applications are properly authorized, tested, and approved before they are implemented, and
- Ensure that only authorized persons and applications have access to data, and then only to perform specifically defined functions (e.g., inquire, execute, update).

We anticipate that, except in certain rare instances, project teams will find it necessary to document IT general controls. Many prevent controls are programmed controls residing in computer applications, and detect controls often rely on information produced by computers. Therefore, the documentation and evaluation of IT general controls is important because those controls provide a basis for concluding that prevent controls residing in computer applications continue to function over time and provide, in part, a basis to rely on the output from computerized applications (i.e., electronic evidence) used in the performance of detect controls.

Most prevent controls residing in computer applications should have been tested prior to implementation. If this is the case and the earlier tests results were retained (and IT general controls prove to be effective), project teams generally will be able to document the prevent controls without extensive additional effort.

**Considerations for Documenting Controls**

The project team should document the controls the company/reporting unit has established that are responsive to the “what can go wrong” questions. Information obtained as the project team identifies where errors can occur and the relevant controls should be supplemented, as necessary, by memoranda, notes, and copies of related documentation.

Generally, documentation of the controls over significant applications and transactions is sufficient when it:

- Specifies “what can go wrong” in the processing stream and thus where controls are needed
Describes the relevant prevent and detect controls that are responsive to each “what can go wrong” question

States who performs the controls

The project team’s documentation of controls should provide evidence that appropriate controls have been established and are effectively designed to prevent or detect errors of importance or fraud. We recommend the documentation include a description of each control, including how the control is performed, who performs the control, what data reports, files, or other materials are used in performing the control, and what physical evidence, if any, is produced as a result of performing the control. This documentation will be helpful in subsequent phases of the process, particularly in designing procedures to verify the operating effectiveness of those controls. In addition, this documentation will be useful in:

- Identifying whether controls have changed over time
- Identifying situations where there is a potential lack of segregation of duties
- Considering whether controls have been designed so that they are not easily overridden and, if they are overridden, whether policies and programs (e.g., fraud programs) exist to detect and report such overrides

Ernst & Young has developed an Illustrative Documentation Template in Microsoft Access® to illustrate the steps to document internal controls that a company/reporting unit has established that are responsive to the “what can go wrong” questions. Companies can use the template as a guide in designing their approach to documenting internal control at the process, transaction, or application level. Smaller companies or companies with a non-complex organizational structure may elect to use the template as provided. However, Ernst & Young does not intend to support the template or related software. You may obtain an electronic copy of the template, free of charge, by contacting your Ernst & Young engagement team or a local Ernst & Young representative.

Perform Walk-Throughs to Confirm Understanding of Process and Controls

We recommend that project teams walk through each process, from the point at which the major classes of transactions are initiated to the end of the recording process, to confirm (1) the understanding of the processing procedures, (2) the correctness of the information obtained about the relevant prevent and/or detect controls in the process, and (3) that these controls have, in fact, been placed in operation. For non-routine and estimation transactions, generally the project team can gain an understanding of the transaction, identify and understand controls, and conduct walk-throughs simultaneously.

A walk-through normally is performed using documents that the project team believes are typical of the process being reviewed. We recommend performing a walk-through for at least one transaction within each major class of transactions previously identified, unless additional walk-throughs are needed to confirm the project team’s understanding. When there have been significant changes in the process and/or the supporting computer applications during the period under evaluation, the project team should consider the need to walk through transactions that were processed both before and after the change. The need to do this depends on the nature of the change and how it affects the likelihood of errors of importance or fraud in the related accounts.

During the walk-through, the project team should question personnel at each point where important processing controls or procedures are prescribed (i.e., those most relevant to the accuracy of the financial statements). The questions should focus on their understanding of what is required and whether the processing procedures and controls are performed on a regular basis.

The project team also may attempt to corroborate information obtained at various points in the walk-through by asking personnel to describe their understanding of the previous and succeeding processing or control activities and to demonstrate what they do. Furthermore, during the walk-through we recommend attempting to identify exceptions to the prescribed processing procedures and the controls and any differences between what the project team understands is required and what is actually done.

If the control is an employee review, and the employee is required to initial a document as evidence of having reviewed it, we recommend inquiring about the nature of the review performed and ascertaining whether the documents subject to the walk-through have been initialed.
by an appropriate employee. Furthermore, we recommend asking what the person does if the review process reveals an error or other discrepancy in the document, and if appropriate, examining documents where problems were detected to confirm that appropriate actions were taken.

If the control consists of the preparation and analysis of a periodic reconciliation, we recommend:

- Reviewing one or more of the reconciliations to determine whether all the relevant data are accurately and promptly included
- Noting the disposition of any unusual items
- Inquiring about the actions taken when the reconciliation reveals actual or potential errors
- Inquiring how the errors occurred
- Whenever practicable, obtaining evidence of the correction of the errors that were noted during the reconciliation process
- Determining whether the reconciliation is performed by or relies on information processed by a computer system. If the reconciliation relies on an automated process, the project team should consider the results of procedures it performed related to IT general controls.

In addition to following the physical flow of documents and forms, the project team also should follow the flow of data and file information through the automated processes (at a system level, not a detailed logic level). These procedures may include inquiry of independent and knowledgeable personnel, review of user manuals, observation of a user processing transactions at a terminal in the case of an online application, and review of documentation such as output reports.

**Perform Walk-Throughs of IT General Controls**

IT general controls are designed to (1) ensure that changes to applications are properly authorized, tested, and approved before they are implemented, and (2) ensure that only authorized persons and applications have access to data, and then only to perform specifically defined functions (e.g., inquire, execute, update). Appendix C provides a listing of common IT general controls over program acquisition, implementation and maintenance and over access to IT resources.

The project team should perform walk-throughs of the IT general controls (or equivalent procedures) to confirm its understanding of their design and determine that they have been placed in operation. In addition, the project team also should obtain some evidence about whether the controls are operating as designed. The means of gathering evidence during the walk-throughs or equivalent procedures may include:

- Inquiring of various personnel to corroborate the understanding obtained from the IT process owner
- Selecting an item over which the controls are designed to operate (e.g., a request for a program change) and inspecting evidence of the operation of the controls on that item. Some controls may leave no evidence of their operation (e.g., meetings with IT personnel and users to discuss user needs or approve the design of controls). The project team will need to use its judgment to determine the adequacy of the evidence in such situations.
- Examining documentation of the control’s design
- Examining reports of key performance indicators or other information that is used to monitor the controls
- Observing whether the IT process owner or others act upon the results of the controls

**Considerations for Documenting Walk-Throughs**

Walk-throughs of processes and the related controls generally are documented in brief memos describing the procedures the project team performed to confirm its understanding of the process design and the related controls and whether they have been placed in operation.

**Controls Residing Outside the Company**

Because companies often use service organizations to hold assets, execute transactions and maintain related accountability, or record transactions and process related data, the project team may identify parts of the process and/or controls related to significant accounts or groups of accounts that are performed by service organizations. The project team should first determine whether the company has implemented effective internal control over the processing performed by the service organization. In situations where this is the case, the project team may not need to gain an understanding of the flow of the transactions
or the controls at the service organization because the company has the ability to, and has, placed effective controls in operation (e.g., comparison of input to output).

When the company is unable to place into operation effective controls over the service organization’s activities, the project team likely will need to gain an understanding of the flow of transactions and the controls at the service organization, as well as at the company. The project team should obtain, read, and evaluate an appropriate service auditor’s report (i.e., SAS 70 report) that describes the service organization’s processes, identifies the related controls, including describing tests of their operating effectiveness performed by the service auditor, and specifies the period covered by the report. The project team should document its conclusions as to how the controls at the service organization support the relevant financial statement assertions (similar to how it documents other controls).

**Finalizing the Documentation of Controls**

As the project team finalizes its documentation of controls identified over a specific process, it needs to determine whether:

1. All significant risks identified as “what can go wrong” questions are addressed by one or more of the identified controls, and

2. The controls that address the identified risks are adequately designed to prevent or detect errors of importance or fraud.

The project team should be mindful that it is common that some controls can address more than one risk. For some risks, the project team may find it necessary to identify more than one control to conclude that the controls, in the aggregate, are adequately designed to address the risks of errors identified.

Appendix B provides example documentation of the “what could go wrong” questions and controls related to the cash disbursements process for a medium-sized manufacturing company. This example control documentation assumes that appropriate documentation also has been prepared of the flows of transactions through the cash disbursements process (i.e., how transactions are initiated, recorded, processed, and reported). As illustrated in the example, several of the controls identified address, at least in part, more than one risk as defined by the “what can go wrong” questions. Similarly, it was necessary in the example to identify more than one control to address several of the individual risks identified.

The project team will need to follow up to ensure appropriate corrective action is taken when it is unable to conclude that the design of identified controls provides reasonable assurance that errors of importance or fraud will not be prevented or detected on a timely basis.

**Company Policies and Procedures Regarding Authorization, Safeguarding of Assets, and Asset Accountability**

In addition to considering controls over specific processes, the project team also should consider company policies and procedures regarding authorization, safeguarding of assets, and asset accountability. These policies and procedures provide reasonable assurance that:

- Assets are acquired, safeguarded, and used, and that liabilities are incurred and discharged, in accordance with management authorization
- Financial information is accurately maintained in the books and records with respect to assets and liabilities resulting from such decisions

These policies and procedures relate primarily to management’s control over the disposition of the company’s assets and liabilities and only indirectly to controls over the processing of data, which are concerned with the accurate, timely, and complete recording of transactions. However, the absence of such policies and procedures may increase the risk of errors of importance or fraud. For example, asset accountability procedures frequently take the form of account reconciliations or other detect controls. The absence of, or weaknesses in, such procedures may influence the project team’s evaluation of controls over processes.

The project team should assess the extent to which any significant weaknesses in management’s authorization, asset safeguarding, and asset accountability procedures could increase the likelihood of errors of importance in account balances. In making this assessment, the project team should consider the materiality of the assets concerned and their susceptibility to physical loss or loss in value through errors or fraud.
Documenting Controls at the Process, Transaction, or Application Level

Inherent and Key Business Risks

Next Steps

Financial Statement Assertions:
- Existence or Occurrence
- Completeness
- Valuation or Measurement
- Rights and Obligations
- Presentation and Disclosure

Processes That Influence the Significant Accounts:
- Flows of transactions
  - Routine
  - Non-Routine
  - Estimation
- IT processes
- Financial Statement Close Process

For Each Assertion Ask:
- Where are the points in the flow of transactions where errors can occur?
- Example:
  Accounts: Cash or Payables
  Process: Disbursements
  Assertion: Valuation
  What are the manual and programmed procedures to ensure that the amount of a check or transfer agrees with the amount approved for payment?

Significant Accounts Selected Based Upon:
- Errors of importance*
- Size and composition
- Susceptibility to loss or fraud
- High transaction volume
- Transaction complexity
- Subjectivity in determining account balance
- Nature of the account

Financial Statement Assertions:
- Existence or Occurrence
- Completeness
- Valuation or Measurement
- Rights and Obligations
- Presentation and Disclosure

Significant Processes

What Can Go Wrong?

Controls

Evaluate/Monitor

Report

Management Report on Internal Control

Next Steps

Controls That Prevent or Detect Errors of Importance* or Fraud:
- Who Performs?
  - Segregation of duties
- Control Dependent on IT?
  - Programmed control
  - Electronic evidence
- Company policies and procedures for:
  - Authorization of transactions
  - Safeguarding of assets
  - Asset accountability

* Errors that individually or collectively could have a material effect on the financial statements
Next Steps

The completion of the documentation of internal control at the entity level and internal controls at the process, transaction, or application level will provide the project team with information necessary to evaluate the overall effectiveness of controls in the final phase of the methodology.

In the final phase, the project team will determine that the controls identified are functioning as designed. Additional information about evaluating the overall effectiveness of internal control, including procedures for determining that controls are functioning as designed, identifying matters for improvement, and evaluating processes to monitor the system of internal control, will be provided in a future publication.
# Appendix A — Example Significant Accounts and Processes for Selected Industries

## Life and Health Insurance

<table>
<thead>
<tr>
<th>Example Processes</th>
<th>Transaction Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Statement Close</td>
<td>Non-Routine</td>
</tr>
<tr>
<td>Cash Receipts</td>
<td>Routine</td>
</tr>
<tr>
<td>Cash Disbursements</td>
<td>Routine</td>
</tr>
<tr>
<td>Payroll</td>
<td>Routine</td>
</tr>
<tr>
<td>Maintain Policy Master File</td>
<td>Routine</td>
</tr>
<tr>
<td>Claims and Benefits</td>
<td>Routine</td>
</tr>
<tr>
<td>Premiums and Commissions</td>
<td>Routine</td>
</tr>
<tr>
<td>Claim and Collect Reinsurance</td>
<td>Non-Routine</td>
</tr>
<tr>
<td>Develop/monitor Deferred Acquisition Costs Assumptions</td>
<td>Estimation/Routine</td>
</tr>
<tr>
<td>Develop/monitor Reserve Estimates</td>
<td>Estimation/Routine</td>
</tr>
<tr>
<td>Investments — Purchase and Sell</td>
<td>Routine</td>
</tr>
<tr>
<td>Investments — Recognize Income, Gain and Loss</td>
<td>Estimation/Routine</td>
</tr>
<tr>
<td>Manage Derivatives and Hedges</td>
<td>Estimation</td>
</tr>
<tr>
<td>Assess Assets for Impairment</td>
<td>Estimation</td>
</tr>
<tr>
<td>Calculate Income Taxes</td>
<td>Non-Routine</td>
</tr>
<tr>
<td>Estimate Commitments and Contingencies</td>
<td>Estimation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Example Significant Accounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and Cash Equivalents</td>
</tr>
<tr>
<td>Investment and Related Income, Gains and Losses</td>
</tr>
<tr>
<td>Deferred Policy Acquisition Costs and Amortization</td>
</tr>
<tr>
<td>Reserve/claim reserves and related expenses</td>
</tr>
<tr>
<td>Unrealized Premium Reserve</td>
</tr>
<tr>
<td>Income taxes (current, deferred) and related income statement activity</td>
</tr>
<tr>
<td>Commitments, contingencies and related expense</td>
</tr>
<tr>
<td>Premiums and related receivables</td>
</tr>
<tr>
<td>Operating, underwriting, general expense</td>
</tr>
</tbody>
</table>
## APPENDIX A—EXAMPLE SIGNIFICANT ACCOUNTS AND PROCESSES FOR SELECTED INDUSTRIES

### Example Significant Accounts

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Statement Close</td>
<td>Non-Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Cash Receipts</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Cash Disbursements</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Payroll</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Purchase and Pay for Assets and Expenses</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Inventory Costing and Cost of Sales</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Sales and Accounts Receivable</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Account for Stock Options</td>
<td>Non-Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Adjust for Foreign Currencies</td>
<td>Non-Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Amortize Prepaid and Intangible Assets</td>
<td>Non-Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Assess Assets for Impairment</td>
<td>Estimation</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Calculate Income Taxes</td>
<td>Non-Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Depreciate Property, Plant and Equipment</td>
<td>Non-Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Estimate Commitments and Contingencies</td>
<td>Estimation</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Estimate Excess and Obsolete Inventory Reserves</td>
<td>Estimation</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Estimate Pension and OPEB Liabilities and Expense</td>
<td>Estimation</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Estimate Allowance for Doubtful Accounts and Bad Debt Expense</td>
<td>Estimation</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Estimate Warranty Reserve and Expense</td>
<td>Estimation</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Lower of Cost or Market Calculation</td>
<td>Estimation</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>LIFO Calculation</td>
<td>Non-Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Physical Inventory (Count and Compilation)</td>
<td>Non-Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>Record and Monitor Debt</td>
<td>Non-Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
</tbody>
</table>
## Property and Casualty Insurance

<table>
<thead>
<tr>
<th>Example Processes</th>
<th>Transaction Types</th>
<th>Cash and Cash Equivalents</th>
<th>Investments and Related Income, Gains and Losses</th>
<th>Reinsurance Balances</th>
<th>Loss Adjustment Expense</th>
<th>Revenue: Current, Deferred and Related Revenue</th>
<th>Expense and Income Statement Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Statement Close</td>
<td>Non-Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Cash Receipts</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Cash Disbursements</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Payroll</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Capitalization and Amortization of Deferred Acquisition Costs</td>
<td>Estimation/Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Claims Payment</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Premium and Commission</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Calculate Loss Reserve Balances</td>
<td>Non-Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Contingent Premium/Commission Accruals</td>
<td>Non-Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Underwriting</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Investments–Purchase and Sell</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Investments–Recognize Income, Gain and Loss</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Manage Derivatives and Hedges</td>
<td>Estimation</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Investments Valuation</td>
<td>Estimation/Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Reinsurance</td>
<td></td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Assess Assets for Impairment</td>
<td>Estimation</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Calculate Income Taxes</td>
<td>Non-Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Estimate Commitments and Contingencies</td>
<td>Estimation</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
</tbody>
</table>
### Example Significant Accounts

<table>
<thead>
<tr>
<th>Example Processes</th>
<th>Transaction Types</th>
<th>Cash and Due from Banks</th>
<th>Investment Securities and Related Income Statement Activity</th>
<th>Allowance and Related Provision for Credit Losses</th>
<th>Deposits, Fee Income and Related Expense</th>
<th>Other Liabilities and Related Income Statement Activity</th>
<th>Income Taxes (Current, Deferred) and Related Expense</th>
<th>Borrowings and Related Interest Expense</th>
<th>Commitments, Contingencies and Related Expense</th>
<th>Stockholders’ Equity</th>
<th>Payroll Expense and Related Accrual Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Statement Close</td>
<td>Non-Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Cash Receipts</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Cash Disbursements</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Payroll</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Purchase and Pay for Assets and Non-Interest Expense</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Treasury/Investment Securities-Valuation and Income Recognition</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Treasury/Investment Securities-Transaction Execution</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Operations—Deposits, Withdrawals, Fee Income and Interest Expense</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Operations—Clearing and Settlement</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Credit Origination, Transaction Processing and Income Recognition</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Operations—Electronic Funds Transfers</td>
<td>Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Investments in Affiliates/Joint Ventures</td>
<td>Non-Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Calculate Amortization</td>
<td>Non-Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Assess Assets for Impairment</td>
<td>Estimation</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Calculate Income Taxes</td>
<td>Non-Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Calculate Depreciation</td>
<td>Non-Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Estimate Commitments and Contingencies</td>
<td>Estimation</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Estimate Pension and OPEB Liabilities and Expense</td>
<td>Estimation</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Estimate Allowance for Credit Losses</td>
<td>Estimation</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>Manage Derivatives and Hedging</td>
<td>Non-Routine</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
</tbody>
</table>
### Example Significant Accounts

<table>
<thead>
<tr>
<th>Transaction</th>
<th>Financial Statement Close</th>
<th>Non-Routine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash and Cash Equivalents</td>
<td></td>
<td>✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖</td>
</tr>
<tr>
<td>Allowance for Doubtful Accounts and Bad Debt Expense</td>
<td></td>
<td>✖ ✖ ✖ ✖ ✖</td>
</tr>
<tr>
<td>Payable Expenses, Deferred Leasing Costs and Other Current Assets</td>
<td></td>
<td>✖ ✖ ✖ ✖ ✖</td>
</tr>
<tr>
<td>Other Investments (Including Equity Investments) and Other Income/Expense</td>
<td></td>
<td>✖ ✖ ✖ ✖ ✖</td>
</tr>
<tr>
<td>Investment In and Advances to Partnerships, Nv and Equity in Earnings</td>
<td></td>
<td>✖ ✖ ✖ ✖ ✖</td>
</tr>
<tr>
<td>Deferred Charges and Related Amortization</td>
<td></td>
<td>✖ ✖ ✖ ✖ ✖</td>
</tr>
<tr>
<td>Development Properties</td>
<td></td>
<td>✖ ✖ ✖ ✖ ✖</td>
</tr>
<tr>
<td>Real Estate Investments and Depreciation Expense</td>
<td></td>
<td>✖ ✖ ✖ ✖ ✖</td>
</tr>
<tr>
<td>Intangible Assets and Related Amortization</td>
<td></td>
<td>✖ ✖ ✖ ✖ ✖</td>
</tr>
<tr>
<td>Accounts Payable and Related Income Statement Activity</td>
<td></td>
<td>✖ ✖ ✖ ✖ ✖</td>
</tr>
<tr>
<td>Income Taxes (Current, Deferred) and Related Income Statement Activity</td>
<td></td>
<td>✖ ✖ ✖ ✖ ✖</td>
</tr>
<tr>
<td>Accrued Liabilities and Related Income Statement Activity</td>
<td></td>
<td>✖ ✖ ✖ ✖ ✖</td>
</tr>
<tr>
<td>Mortgages/Notes Payable and Related Interest Expense</td>
<td></td>
<td>✖ ✖ ✖ ✖ ✖</td>
</tr>
<tr>
<td>Commitments, Contingencies and Related Expense</td>
<td></td>
<td>✖ ✖ ✖ ✖ ✖</td>
</tr>
<tr>
<td>Shareholders’ Equity</td>
<td></td>
<td>✖ ✖ ✖ ✖ ✖</td>
</tr>
<tr>
<td>Payroll Expense and Related Accrued Liabilities</td>
<td></td>
<td>✖ ✖ ✖ ✖ ✖</td>
</tr>
<tr>
<td>Gain/Loss on Sale of Real Estate</td>
<td></td>
<td>✖ ✖ ✖ ✖ ✖</td>
</tr>
</tbody>
</table>
### Example Significant Accounts

#### Retail

<table>
<thead>
<tr>
<th>Example Processes</th>
<th>Transaction Types</th>
<th>Accounts Receivable and Related Income Statement Activity</th>
<th>Allowance for Doubtful Accounts and Bad Debt Expense</th>
<th>Inventory Reserves and Related Income Statement Activity</th>
<th>Inventory Shrink Reserve and Related Expense</th>
<th>Prepaids, Other Current Assets and Related Expense</th>
<th>Intangibles, Other Assets and Related Amortization</th>
<th>Income Taxes (Current, Deferred) and Related Income Statement Activity</th>
<th>Accrued Liabilities and Related Interest Expense</th>
<th>Unearned Revenue and Related Revenue Statement Activity</th>
<th>Stockholders’ Equity and Stock Compensation Expense</th>
<th>Payroll Expense and Related Accrued Liabilities</th>
</tr>
</thead>
</table>
| Financial Statement Close                              | Non-Routine                    | ✖ ✖ ✖ ✖                                                    | ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖ ✖
### Example Significant Accounts

<table>
<thead>
<tr>
<th>Example Processes</th>
<th>Transaction Types</th>
<th>Non-Routine</th>
<th>Routine</th>
<th>Estimation</th>
<th>Non-Routine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Statement Close</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash Receipts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash Disbursements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payroll</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchase and Pay for Assets and Expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bill and Collect for Sales</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Billing Adjustments</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost and Record Inventory/Sales</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Account for Marketable Securities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Account for Stock Options</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capitalize and Amortize Software Development Costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amortize Prepaid and Intangible Assets</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assess Assets for Impairment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculate Income Taxes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciate Property and Equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimate Commitments and Contingencies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimate Excess and Obsolete Inventory Reserves</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimate Reserve for Restructuring Expense</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimate Allowance for Doubtful Accounts and Bad Debt Expense</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimate Warranty and Returns Reserves</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Defer and Recognize Revenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Account for Business Combinations</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Inventory (Count and Compilation)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Record and Monitor Debt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note: The table above shows the example significant accounts for Technology & Communications.*
## Appendix B — Example Risk and Control Documentation for Cash Disbursements Process

### Example Significant Accounts Affected:
- Cash and Cash Equivalents
- Accounts Payable and Expenses
- Accrued Liabilities and Expenses
- Debt and Related Interest Expense
- Pension, OPEBs and Related Expense
- Commitments, Contingencies and Related Expense

### Consider “What Can Go Wrong” Questions and Identify Controls

<table>
<thead>
<tr>
<th>Example “What Can Go Wrong” Questions</th>
<th>Assertion</th>
<th>Vendor complaints to purchasing department are monitored</th>
<th>Purchase order requisition/receipts to accounts payable detail</th>
<th>Disbursement requisitions for non-trade payables are reviewed</th>
<th>Approval required for changes to vendor master files</th>
<th>Bank reconciliations prepared and reviewed on a timely basis</th>
<th>System matches PO, receiving report, and invoice (3-way match)</th>
<th>System prevents invoice for payment only after 3-way match</th>
<th>System automatically writes checks or processes electronic payments</th>
</tr>
</thead>
<tbody>
<tr>
<td>What ensures that cash disbursements are correctly coded?</td>
<td>Completeness</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>What ensures that cash disbursements/transfers are recorded in the proper period?</td>
<td>Completeness</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>What ensures that duplicate postings of cash disbursements are not made to the general ledger?</td>
<td>Occurrence</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>What ensures that cash disbursements are real?</td>
<td>Existence/Occurrence</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>What ensures that all cash disbursements are recorded?</td>
<td>Completeness</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>What ensures that cash disbursement amounts recorded agree with amounts paid?</td>
<td>Valuation/Measurement</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
### Document Controls

<table>
<thead>
<tr>
<th>Example Controls</th>
<th>Control Type</th>
<th>Who Performs?</th>
<th>Control Dependent on IT?</th>
<th>IT General Controls Evaluated?</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vendor complaints to purchasing department are monitored</td>
<td>Detect</td>
<td>AP Clerks</td>
<td>No</td>
<td>N/A</td>
<td>Effective</td>
</tr>
<tr>
<td>Vendor statements reconciled to accounts payable detail</td>
<td>Detect</td>
<td>AP Clerks</td>
<td>Yes</td>
<td>Yes</td>
<td>Effective</td>
</tr>
<tr>
<td>Disbursement requisitions for non-trade payables are reviewed</td>
<td>Detect</td>
<td>Department Head</td>
<td>Electronic Evidence</td>
<td>No</td>
<td>Effective</td>
</tr>
<tr>
<td>Accounts payable subledger/aging is reviewed and reconciled to general ledger</td>
<td>Detect</td>
<td>AP Supervisor</td>
<td>Yes</td>
<td>Electronic Evidence</td>
<td>Effective</td>
</tr>
<tr>
<td>Approval required for changes to vendor master files</td>
<td>Prevent</td>
<td>Accounting</td>
<td>No</td>
<td>N/A</td>
<td>Effective</td>
</tr>
<tr>
<td>Bank reconciliations prepared and reviewed on a timely basis</td>
<td>Detect</td>
<td>Treasury Clerk</td>
<td>No</td>
<td>N/A</td>
<td>Effective</td>
</tr>
<tr>
<td>System matches PO, receiving reports, and invoice (3-way match)</td>
<td>Prevent</td>
<td>System</td>
<td>Yes</td>
<td>Programmed Control</td>
<td>Effective</td>
</tr>
<tr>
<td>System presents invoice for payment only after 3-way match</td>
<td>Prevent</td>
<td>System</td>
<td>Yes</td>
<td>Programmed Control</td>
<td>Effective</td>
</tr>
<tr>
<td>System only allows payment of invoice once</td>
<td>Prevent</td>
<td>System</td>
<td>Yes</td>
<td>Programmed Control</td>
<td>Effective</td>
</tr>
<tr>
<td>Disbursements greater than specified amounts require additional approval</td>
<td>Prevent</td>
<td>CFO</td>
<td>No</td>
<td>N/A</td>
<td>Effective</td>
</tr>
<tr>
<td>System automatically writes checks and/or processes electronic payments based on value of approved invoices</td>
<td>Prevent</td>
<td>System</td>
<td>Yes</td>
<td>Programmed Control</td>
<td>Effective</td>
</tr>
</tbody>
</table>

This example control documentation assumes that appropriate documentation also has been prepared of the flows of transactions through the cash disbursements process (i.e., how transactions are initiated, recorded, processed, and reported).
Appendix C — Common IT General Controls

Listed below are illustrative IT general controls to guide project teams in identifying significant IT general controls in their companies. These lists are not all-inclusive, and each project team will need to consider the unique IT environment of its company.

**IT Program Acquisition, Implementation and Maintenance Controls**

Below is a listing of common controls over IT program acquisition, implementation and maintenance.

- Formal policies and procedures are in place that define an approach to systems acquisition and change management (e.g., a formal systems development methodology)
- User department and IT department management approval is required before systems acquisition and change projects are undertaken
- The IT department maintains project documentation, including systems requirements definitions, risk analyses, and cost-benefit analyses
- A mechanism is in place to periodically review service organization operational and control effectiveness
- The systems acquisition and change approach addresses security risks
- The systems acquisition and change approach addresses data conversion
- Environments for development (or modification) and testing of IT solutions are separated (either logical or physical) from production systems
- Management reviews and approves IT solutions prior to their implementation
- Users are actively involved in the test process
- Development personnel are prohibited from migrating applications and data from the test environment to production
- Post-implementation review procedures are performed for system modifications made during an emergency

**IT Access Controls**

Below is a listing of common controls over access to IT resources.

- Formal policies and procedures are in place that define an approach to system security (including confidentiality of data and information)
- A mechanism is in place for communicating security policies to employees (e.g., requiring users to sign an acknowledgement that they have read and understood the company’s security policies)
- A security organization exists that is independent of both the user departments and other IT department functions
- IT department personnel do not have operational or accounting responsibilities
- Appropriate user department and IT department management control access to the following:
  - Local and wide area networks
  - Remote connection to networks and/or applications
  - Internet/intranet sites
  - Applications and application modules
- The following user account security parameters are in place:
  - Users are assigned unique user IDs
  - Adequate passwords are required (e.g., minimum and maximum password length, at least one alpha and one numeric character)
  - User created passwords (e.g., passwords are not assigned)
  - Periodic password changes are required
— User accounts are disabled after a limited number of unsuccessful logon attempts
— Users are limited to one session per account (e.g., concurrent sessions or logons are not allowed)
— Measures are in place to prevent the repeated use of a password
— Administrator rights are assigned to a limited number of individuals who require those rights to perform their job duties

> Communications with public networks are controlled by a firewall. The firewall is implemented to:
> — Hide the structure of the client’s network
> — Provide an audit trail of communications with public parties
> — Generate alarms when suspicious activity is suspected
> — Defend itself and/or the company’s network against attack

> Procedures for protection against malicious programs are in place through the use of anti-virus software and other measures (which may include policies limiting the installation of unapproved programs, procedures for reporting suspected occurrences of viruses, etc.)

> Physical access to technology infrastructure is restricted
> Access to internal networks and/or applications by suppliers, customers, and/or other business partners is approved by appropriate management and limited to those networks and/or applications required to conduct business
> Representatives of suppliers, customers, and/or other business partners are required to adhere to the client’s policies, procedures, and security standards when accessing the client’s systems
Appendix D — Example Segregation of Duties Template

Segregation of Duties in Significant Accounting Applications

<table>
<thead>
<tr>
<th>Company Subsidiary or Division</th>
<th>Date</th>
</tr>
</thead>
</table>

### Cash Disbursements Application

<table>
<thead>
<tr>
<th>Activity</th>
<th>Authorization</th>
<th>Custody of assets</th>
<th>Recording</th>
<th>Control activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintains/controls checks and signature plate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prepares checks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Signs checks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mails checks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintains cash disbursements journal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Initiates wire transfers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approves wire transfers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reconciles bank accounts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Matches invoices to purchase orders and receiving reports</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approves voucher packages for payment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintains purchases journal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintains accounts payable records</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Controls the accuracy, completeness of, and access to cash disbursements programs and data files</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Additional Considerations

In instances where “computer” or “IT” has been listed as performing a function checked above, consider whether (1) the individuals authorized to enter transactions or adjustments perform other incompatible duties and (2) whether there are procedures to ensure that only authorized individuals have the capabilities to enter the transactions or adjustments.

In addition, when the “computer” or “IT” has been identified as performing potentially incompatible duties, consider whether the segregation of duties within the IT department and/or other controls result in effective segregation of duties.

### Conclusion

Have any potentially conflicting duties been identified? □ YES □ NO □

If potentially conflicting duties have been identified, note them and either (1) indicate their effects on our evaluation of the controls over the cash disbursements application and our assessment of the risk of fraud, or (2) indicate where in the documentation their effects are considered.