Mercury IT Governance Center™

Mercury Sarbanes-Oxley Corporate Assessment Accelerator™ Guide

Version: 1.0

MERCURY™

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Chapter 1 Introduction

In This Chapter:

About This Document

The Mercury Sarbanes-Oxley Corporate Assessment Accelerator™, built on Mercury IT Governance Center™, provides best-practice content to help you start and maintain a sustainable Sarbanes-Oxley (SOX) compliance initiative.

This document describes the Mercury Sarbanes-Oxley Corporate Assessment Accelerator. The chapters address the following topics:

- Chapter 2, *Installing the Accelerator*, on page 19

  Details the installation procedure for the Accelerator.

- Chapter 3, *Importing Your Control Catalog*, on page 23

  Discusses the process for importing your control catalog or using the one supplied by the Accelerator to get started.

- Chapter 4, *Managing the Control Catalog*, on page 33

  Discusses the creation and maintenance of control catalog items, and features of the Accelerator used to maintain optimum visibility over key attributes of the control catalog.

- Chapter 5, *Managing the Control Assessment Process*, on page 61

  Discusses the testing process surrounding control instances.

- Chapter 6, *Managing the Issue Remediation Process*, on page 71

  Discusses the process for issue identification and remediation for tests and control instances.

- Chapter 7, *Supporting Attestation and External Audit*, on page 81

  Discusses the reports supplied by the Accelerator that aid compliance with SOX Sections 302 and 404.

Who Should Read This Document

This document is for the following audience types and assumes that the reader has some basic understanding of SOX compliance, visibility, control, and attestation concepts.

- Application developers and configurators
- End users associated with the following business roles:
  - Corporate SOX manager
  - Internal auditor
  - Business unit accounting
  - Sub-process owner
  - Control activity owner
  - External auditor

For More Information

For information about audience types, see the *Guide to Documentation*.

Prerequisite Documents

Prerequisite documents include:

- *Getting Started*
- *Key Concepts*
- *Mercury Demand Management User's Guide*
- *Mercury Demand Management: Configuring a Request Resolution System*

For More Information

For information about these documents and how to access them, see the *Guide to Documentation*.

Related Documents

Supplemental documentation includes:

- *System Administration Guide and Reference*
- *Commands, Tokens, and Validation Guide and Reference*

For More Information

For information about these documents and how to access them, see the *Guide to Documentation*.

Overview of Mercury Sarbanes-Oxley Corporate Assessment Accelerator

The Mercury Sarbanes-Oxley Corporate Assessment Accelerator leverages the concept of the control catalog to help you best implement and assure compliance with section 404 of Sarbanes-Oxley. The Accelerator's content and functionality allow you to:

- Maintain the control catalog
- Document control assessment and remediation
- Expedite external audit evaluation

Using the Control Catalog

The concept of the control catalog is based on the Sarbanes-Oxley Section 404 requirement to document key accounts, business processes, and controls. The control catalog consists of a hierarchical tree structure that describes the business from a process, risk, and control perspective.

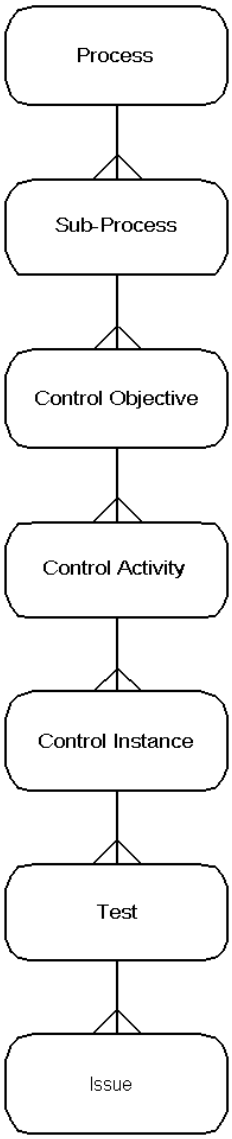


Figure 1-1. Control catalog hierarchy

Processes

Processes represent the major business functions of a company, and exist at the highest level of the hierarchy. Processes themselves lack form data to be captured, and are treated by the Accelerator as a simple way to group sub-processes.

Sub-Processes

Sub-processes are at the hierarchy level immediately below processes. Sub-processes contain one or more control objectives.

Control Objectives

Control objectives manage risk. Risk is the uncertainty of an event occurring that could have an impact on the achievement of objectives. Risk is measured in terms of consequences and likelihood of occurrence. The term used to classify measured risk is "potential exposure," which is also associated with *Issues*. A control objective is the preventive restatement of a risk.

For example, for the Accounts Payable sub-process, a risk would be that inaccurate purchase amounts may be recorded. The control objective for this risk would be the preventive restatement, "To record the accurate amount of expenses for every purchase."

Control Activities

Each control objective is supported by one or more control activities. These control activities may be manual or enabled by computer systems, but should be sufficient to meet the control objectives.

In the Accounts Payable example above, control activities may include:

- Review of a valid invoice to determine the expense amount
- Validation of the invoice amount against a valid purchase order

Control Instances

In large corporations, control activities may be implemented differently based on geographic or business unit boundaries, yet often with a corporate standard that serves as guidance. A control instance is the geographic and/or organizational "instance" of a control activity.

Managing the Control Assessment Process

Sarbanes-Oxley Section 404 requires that corporate management assess the effectiveness of internal controls over financial reporting periodically, based on a control framework that management must specify, often COSO. These activities include periodic testing of control instances.

Tests

The Accelerator provides a best-practice framework for the control instance testing process that can be run periodically. The frequency of testing depends on several factors, such as the severity of the issue a control instance is attempting to mitigate.

Managing the Issue Remediation Process

Issues can be uncovered through control tests, or created independently of testing. These issues must be coordinated, managed, and documented.

Issues

Issues are usually created as a result of a deficiency discovered during a control test. This kicks off a process for remediation. The urgency for issue resolution depends on the severity. The remediation of a control deficiency may involve application, process or control changes. Remediation is complete when the documentation in the control catalog is updated and a subsequent re-test of the remediated control confirms its effectiveness.

Issues can be created at any time, and thus can be linked to control instances directly, without a test occurring.

Attestation and External Audit

SOX Section 302 requires management to attest quarterly regarding the effectiveness of internal controls. Section 404 requires a similar report, including the disclosure of all material weaknesses. The Accelerator provides reports that help speed compliance with these requirements.

Chapter

2

Installing the Accelerator

In This Chapter:

System Requirements

To use the Mercury Sarbanes-Oxley Corporate Assessment Accelerator, you must have Release 6.0 (Service Pack 4) of Mercury IT Governance Center installed.

Installing the Accelerator

To install the Mercury Sarbanes-Oxley Corporate Assessment Accelerator:

1. Be sure Mercury IT Governance Center is running in restricted mode.
2. Be sure you have downloaded the proper bundle:

   `mitg-600-MSOX.jar`

3. Copy the `mitg-600-MSOX.jar` file to the `<ITG_Home>` directory.

You do not need to unpack the installation file. The installation process automatically unpacks it.

4. Navigate to the *ITG_Home*`/bin` directory.
5. Run the script:

   ```
   sh kDeploy.sh -i MSOX
   ```

6. As `kDeploy.sh` runs, respond to prompts.

   When the installation procedure is complete, the following message appears:

   ```
   Deployment MSOX has been successfully installed.Using a Web
   browser, view and check the installation summary report,
   which is located in:

   ITG_Home/logs/deploy/600/MSOX/log_x/installLog.html
   ```

   where *log_x* is a random number generated by `kDeploy.sh` to make each log file name unique. The number increments by one each time the installation script is run, so the log file for the most recent run is the one with the highest log number.

The summary report lists all Mercury entities installed as part of the installation process.

Each entity that was installed correctly is marked as "Completed." If there is an error for a particular entity, the report contains a direct link to another log file (HTML page) with additional information.

Correct the errors, if necessary, and repeat the installation procedure.

7. Stop and restart Mercury IT Governance Center in normal mode, as follows:

   a. Stop the Mercury IT Governance Server.

   b. Run the script:

      ```
      setServerMode.sh NORMAL
      ```

      For more information about this script, see the *System Administration Guide and Reference*.

8. Start the Mercury IT Governance Server.

Chapter

3

Importing Your Control Catalog

In This Chapter:

Importing Your Control Catalog: Overview

The control catalog is the central piece of the Mercury Sarbanes-Oxley Corporate Assessment Accelerator. It is based on the Sarbanes-Oxley (SOX) Section 404 requirement to document key accounts, business processes, and controls.The control catalog consists of a hierarchical tree structure that describes the business from a process, risk, and control perspective, pictured in *Figure 1-1* on page 15.

This chapter explains how to import or recreate your existing control catalog in Mercury IT Governance Center for use by the Accelerator. The Accelerator also supplies a pre-configured control catalog for you to use if you don't have one, or have decided to abandon your existing one.

General Process

Your business probably has an existing control catalog, which may take any of several forms, including a set of spreadsheets or a document management system. The general process for importing your control catalog is as follows:

1. In Mercury IT Governance Center, configure request types corresponding to control catalog items.

   The Accelerator supplies pre-configured request types for each control catalog item. Your company's SOX vernacular can be easily supported by modifying the forms (called "request types" in the system) and their field choices ("validations").

   For more detail, see *Configuring Request Types* on page 25.

2. Following the specifications outlined in *Creating the XML File* on page 25, create an XML file describing your control catalog in the terms used by the Accelerator.

   If your control catalog is an Excel spreadsheet, the Accelerator comes with an Excel macro designed to expedite the creation of this XML file from your existing spreadsheet. See *Using the Excel Macro* on page 27 for more details.

3. Import the XML file into the Accelerator, following the instructions given in *Importing the XML File* on page 30.

   Once the XML file has been imported without errors, the control catalog is ready to use.

Configuring Request Types

Each control catalog item form (sub-process, control objective, control activity, etc.) is represented by a corresponding request type in Mercury IT Governance Center. Though the Accelerator delivers these request types upon installation ready for use, every company is different, and you will probably want to configure them to best suit your business needs. If you do, note the names of the request types you alter, and the tokens for each of their fields.

For detailed discussion of request type configuration, see *Mercury Demand Management: Configuring a Request Resolution System.*

Creating the XML File

The control catalog XML file describes the control catalog's structure in terms of request types and their hierarchical relationships with each other. Below is an example of an excerpt from a typical Accelerator control catalog XML file:

```
<request>
 <identifier>EX10</identifier>
 <field>
  <token>REQD.SUB_PROCESS_NAME</token>
  <value>Purchasing</value>
 </field>
 <field>
  <token>REQD.BUS_UNITS</token>
  <value>Consumer Goods</value>
  <value>Finance and Credit</value>
 </field>
 <requestType>MSOX - Sub Process</requestType>
 <reference>
  <targetType>request</targetType>
  <relationship>target request is child of this request</
relationship>
  <targetIdentifier>EX1035</targetIdentifier>
 </reference>
</request>

<request>
 <identifier>EX1015</identifier>
 <requestType>MSOX - Control Objective</requestType>
 <field>
  <token>REQD.ASSERT_TYPE</token>
  <value>Validity</value>
 </field>
 <field>
  <token>REQD.KEY_ACCOUNTS</token>
  <value>Accrued Expenses, Operating Expenses, Payables,
Prepaid Expenses</value>
 </field>
```

```
 <reference>
  <targetType>request</targetType>
  <relationship>target request is child of this request</
relationship>
  <targetIdentifier>EX112</targetIdentifier>
 </reference>
 <reference>
  <targetType>request</targetType>
  <relationship>target request is child of this request</
relationship>
  <targetIdentifier>EX258</targetIdentifier>
 </reference>
 <reference>
  <targetType>request</targetType>
  <relationship>target request is child of this request</
relationship>
  <targetIdentifier>EX259</targetIdentifier>
 </reference>
 <reference>
  <targetType>request</targetType>
  <relationship>target request is parent of this request</
relationship>
  <targetIdentifier>EX10</targetIdentifier>
 </reference>
</request>
```

The key XML tags are as follows:

- **`requests.`** This tag contains the entire set of requests, and surrounds the XML file.
- **`request.`** This tag contains each separate control catalog item.
- **`identifier.`** This is a string that uniquely identifies the control catalog item within the XML file.
- **`field.`** Each important field within the control catalog item gets its own field tag.
  - **`token.`** The token for the field in Mercury IT Governance Center goes here. It should be the fully-qualified token name, for example REQD.[TOKEN_NAME] for custom fields, REQ.[TOKEN_NAME] for standard header fields.
  - **`value.`** One value for the field. A field with multiple values should have several items, each within their own set of `value` tags. Multiple-value fields should map to a multi-select auto-complete field.
- **`requestType.`** This tag contains the request type in Mercury IT Governance Center that the control catalog item corresponds to.
- **`reference.`** This tag contains the reference information between requests required to build the control catalog.

- **`targetType.`** This tag should contain the string **`request`** only.
- **`relationship.`** This tag specifies the relationship between the control catalog item and its target. Required syntax for this tag:

  ```
  target request is child/parent of this request
  ```

- **`targetIdentifier.`** This tag specifies the target entity for this control catalog item. It should contain the `identifier` string of another control catalog item.

Once the control catalog XML file is complete, it can be imported into the Accelerator, creating the control catalog in the system.

Using the Excel Macro

One common form for a control catalog is that of a Microsoft Excel spreadsheet with information arranged by columns, as in *Table 3-1*.

Table 3-1. Example control catalog spreadsheet

Process	Sub-Process Number	Sub-Process	Sub-Process Primary Business Unit	Control Objective Number	Control Objective	Control Activity Number	Control Activity Short Name
Inventory	EX10	Purchasing	Finance and Credit	EX1015	Purchase orders are placed only for approved requisitions.	EX112	Mgmt must approve all purchase orders
Inventory	EX10	Purchasing	Finance and Credit	EX1015	Purchase orders are placed only for approved requisitions.	EX121	Purchase orders are reviewed and approved by mgmt
Inventory	EX10	Purchasing	Finance and Credit	EX1015	Purchase orders are placed only for approved requisitions.	EX125	Mgmt reviews reports detailing overrides

If your existing control catalog is in this format, the Accelerator provides a Microsoft Excel macro that can help you easily convert the spreadsheet into the desired XML file.

This macro can only be used for Microsoft Excel spreadsheets in the format specified above, with data arranged by columns. If your control catalog is a Microsoft Excel spreadsheet, but has information arranged by rows, the macro cannot be used. You must create your XML file manually, or rearrange your spreadsheet for use with the macro.

Before starting the conversion:

1. Obtain the file containing the macro.

   The macro is contained in the file `MSOX_Catalog_Macro.xls`, located in

   `<ITG_HOME>/integration/mercury/accelerators/MSOX`

2. Create a picture of your control catalog similar to *Figure 1-1* on page 15, and number each hierarchy level (the highest level should be 1).

3. Make a list of the request types corresponding to each control catalog item, and note each request type field's token.

To convert your Microsoft Excel control catalog into a properly formatted XML file:

1. Open your control catalog in Microsoft Excel.

2. Ensure that your control catalog spreadsheet has no hidden rows or columns.

3. Add a new row to the spreadsheet, directly under the heading row. This row will contain the following items:

   - **LEVEL*X*_ID.** This belongs in the column for each control catalog item, where *X* is the item's hierarchy level in the control catalog. The value in each row for this column will be used to populate the `<identifier>` tag.

   - **LEVEL*X*_*TOKEN*.** This belongs in the column for each field in each control catalog item, where *X* is the item's hierarchy level in the control catalog, and *TOKEN* is the token for the field in the request type corresponding to the item. The values in this column will become the

`<value>` tag inside the `<field>` tag in the XML file. The `<token>` tag will be populated by the name specified in the column header.

4. For each hierarchy level, add a new column to the spreadsheet.

   a. In the new row added in step 3, add the following item for each new column:

      LEVEL*X*_REQUEST_TYPE, where X is the hierarchy level.

      The rest of the values in this column should be the request type that corresponds to each control catalog item.

      For example, the values under LEVEL2_REQUEST_TYPE might all be **MSOX - Control Objective.**

5. If you have fields in your control catalog that will be multi-select auto-complete fields, add a new row to the spreadsheet under the row added in step 3 that specifies the delimiter for the list of values. Otherwise, leave it blank.

   Your spreadsheet should resemble the example given in *Using the Mercury-Supplied Control Catalog* on page 31.

6. From the menus in Microsoft Excel, select **Tools > Macro Security** and set your macro security to **Medium.**

7. Save and close your control catalog.

8. Open the file `MSOX_Catalog_Macro.xls`.

9. Open your control catalog.

   There should be a new menu item in the **Tools** menu, **Export Catalog to XML.**

10. Select the new menu option **Tools > Export Catalog to XML.**

11. Enter the name and location for the XML file that will be created.

12. Enter the range of cells for the new row created in step 3, in standard Microsoft Excel format (**A2:U2,** for example).

13. Enter the range of cells that contains the actual table data for your control catalog, in standard Microsoft Excel format (**A3:U70,** for example).

14. Specify whether there are columns that correspond to multi-select auto-complete fields.

    If **Yes,** then enter the row number where the delimiters are specified.

    The macro creates and saves the control catalog XML file for you. This file can be imported into the Accelerator.

Importing the XML File

When you have finished authoring the control catalog XML file, you can import it, creating the control catalog for use by the Accelerator.

To import the control catalog XML file into the Accelerator:

1. Log on to Mercury IT Governance Center.
2. Proceed to the Import From XML page, located at the following URL:

   `<ITG_HOME>/itg/web/knta/admin/GeneralXMLImporter.jsp`

3. Use the file chooser to specify the control catalog XML file to be imported.
4. In XML file to import, enter the number of errors at which the import process should be halted (the default is **10**).
5. Click **Import.**

   The Import From XML page imports the control catalog XML file and reports the results. Click View Log to view a detailed log of the import process.

If a control catalog item using an existing identifier has already been imported, it will not be updated. This means that if you are re-running an import after a botched import, the control catalog items that were imported successfully the first time will not be updated even if they contain new information. Should you want to import updated data, you will need to delete the existing data and re-import it.

Using the Mercury-Supplied Control Catalog

The Accelerator provides a partially complete control catalog conforming to SOX specifications.

This incomplete control catalog is intended to be an example or starting point for a business whose SOX compliance project is in its nascent stages. While it is useful for these purposes, it is strongly advised that professional auditing expertise be utilized for first-year SOX compliance activities.

The Mercury-supplied control catalog comes in the following forms:

- For reference, the control catalog is supplied as a Microsoft Excel spreadsheet that can be opened and browsed. This spreadsheet also contains the metadata specified in *Using the Excel Macro* on page 27 for reference in case you want to build your own control catalog in Microsoft Excel and convert it to the proper XML.
- The control catalog is also supplied as an XML file conforming to the specifications in *Creating the XML File* on page 25. This file can be imported and used immediately.

The Mercury-supplied control catalog can be found in the following directory:

`<ITG_HOME>/integration/mercury/accelerators/MSOX`

Chapter

4

Managing the Control Catalog

In This Chapter:

Managing the Control Catalog: Overview

The concept of the control catalog is explained in *Overview of Mercury Sarbanes-Oxley Corporate Assessment Accelerator* on page 14.

Once your control catalog has been created and configured, you can begin using it to monitor and improve your SOX compliance activities in the following ways:

- The control catalog itself can be viewed hierarchically by business unit or process, with readily available historical data on tests and issues associated with each control instance.
- Items in the control catalog are color-coded according to their effectiveness; included portlets allow for even easier breakdowns of control instances by effectiveness.
- New items can be created in the control catalog with automatic population of key fields from parent items.
- Items in the control catalog are created, serve their purpose, and can be retired according to the lifecycles for each element supplied by the Accelerator.

Viewing the Control Catalog

To view the control catalog, do one of the following:

- From the MSOX - Sub Processes by Process portlet, click the name of a sub-process.
- From the MSOX - Sub Processes by Business Unit portlet, click the name of a business unit.

The MSOX - Control Catalog page opens, displaying a collapsible view of the control catalog hierarchy according to either of the following categorizations:

- Process
- Business unit

MSOX - Control Catalog

Process Inventory

Name	Effectiveness	Self Assesment Effectiveness	Tests and Issues
Sub Process: Purchasing			
Control Objective: Purchase orders are placed only for approved req...			
Control Activity: Management must approve all purchase orders			
Control Instance: Finance and Credit Management Signoff Control	Effective	Effective	Tests and Issues
Control Instance: Consumer Goods Management Signoff Control	Effective	Effective	Tests and Issues
Control Activity: POs are reviewed and approved by Mgmt			
Control Instance: Centralized Control	Ineffective with ...	Ineffective	Tests and Issues
Control Activity: Management reviews and approves overrides			
Control Instance: Centralized Control	Effective	Effective	Tests and Issues
Control Activity: Maintained purchase requisition authorization list			
Control Instance: Centralized Control	Ineffective with ...	Ineffective	Tests and Issues
Control Activity: Function performed by Application System			
Control Instance: Centralized Control	Effective	Effective	Tests and Issues
Control Instance: Centralized Control	Effective	Effective	Tests and Issues
Control Activity: Access to unissued purchase requisitions limited			
Control Instance: Centralized Control	Effective	Effective	Tests and Issues
Control Activity: Criteria for supplier selection are defined			
Control Instance: Centralized Control	Unassessed	Effective	Tests and Issues
Control Activity: Criteria for making purchases are defined			
Control Instance: Centralized Control	Effective	Effective	Tests and Issues
Control Objective: Purchase orders are entered accurately.			
Control Activity: Purchase orders are batch balanced			
Control Instance: Centralized Control	Ineffective with ...	Unassessed	Tests and Issues
Control Instance: Centralized Control	Ineffective with ...	Effective	Tests and Issues
Control Activity: Edited and validated PO data			
Control Instance: Centralized Control	Effective	Effective	Tests and Issues
Control Activity: Independent PO order entry comparison			
Control Instance: Centralized Control	Effective	Effective	Tests and Issues
Control Activity: Management monitors statistics on deliveries of g...			
Control Instance: Centralized Control	Effective	Effective	Tests and Issues
Control Instance: Centralized Control	Effective	Effective	Tests and Issues
Control Objective: All purchase orders issued are input and processed.			
Control Activity: Function performed by Application System			
Control Instance: Centralized Control	Effective	Effective	Tests and Issues
Control Instance: Centralized Control	Effective	Effective	Tests and Issues
Control Activity: Management monitors statistics on deliveries of g...			
Control Instance: Centralized Control	Effective	Effective	Tests and Issues
Control Instance: Centralized Control	Effective	Effective	Tests and Issues
Control Activity: Purchase orders are batch balanced			
Control Instance: Centralized Control	Ineffective with ...	Unassessed	Tests and Issues
Control Instance: Centralized Control	Ineffective with ...	Effective	Tests and Issues
Control Activity: Pos are sequentially prenumbered			
Control Instance: Centralized Control	Ineffective	Effective	Tests and Issues
Sub Process: Managing Inventory			
Sub Process: Receiving and Storing Raw Materials			
Sub Process: Requisitioning Materials			
Sub Process: Producing/ Costing Inventory			
Sub Process: Handling Finished Products			
Sub Process: Shipping Finished Products, Consumer Goods			
Sub Process: Maintaining Inventory Management Master File			
Sub Process: Additional Inventory Related Objectives			

Figure 4-1. MSOX - Control Catalog page

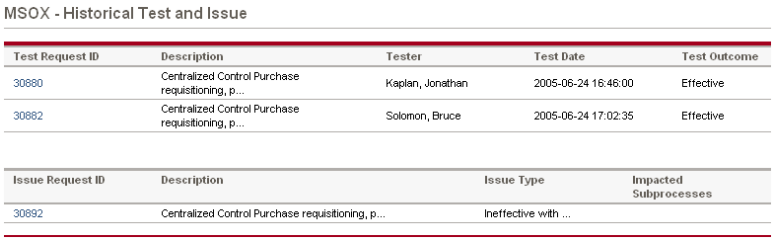
The name of each item in the control catalog links to that item's corresponding form. The names of control instances in the control catalog are color-coded based on the value of each instance's Effectiveness field. *Table 4-1* explains the color coding of control instance names.

Table 4-1. Color coded status of control instances

Color	Value
Green	Effective
Red	Ineffective
Yellow	Ineffective with mitigating control activity
Grey	Un-assessed

Viewing Test and Issue History

Each control instance listed by the MSOX - Control Catalog page features a Tests and Issues link. Clicking the link opens the Historical Test and Issue page for that control instance, pictured in *Figure 4-2*. The Historical Test and Issue page displays a chronologically ordered list of the tests and issues associated with that particular control instance.


MSOX - Historical Test and Issue

Test Request ID	Description	Tester	Test Date	Test Outcome
30880	Centralized Control Purchase requisitioning, p...	Kaplan, Jonathan	2005-06-24 16:46:00	Effective
30882	Centralized Control Purchase requisitioning, p...	Solomon, Bruce	2005-06-24 17:02:35	Effective

Issue Request ID	Description	Issue Type	Impacted Subprocesses
30892	Centralized Control Purchase requisitioning, p...	Ineffective with ...	

Figure 4-2. Historical Test and Issue page for a control instance

Click on the name of any test or issue to view that test or issue in more detail.

Managing the Control Catalog

Each item in the control catalog follows its own lifecycle. At a specific point in the item's lifecycle, you can create child control catalog items (for example, control activities are created from the Manage Control Objective step in the control objective lifecycle). The Accelerator expedites the process of creating these items by automatically filling in key fields. When a control catalog item is no longer relevant, it can be retired, removing it from the control catalog.

Creating a Sub-Process

Sub-processes exist at the hierarchy level immediately below processes. Sub-processes contain and categorize control objectives.

- *Table 4-2* describes the sub-process form.
- *Figure 4-3* shows the sub-process lifecycle.
- *Table 4-3* describes the sub-process lifecycle, step by step.

Table 4-2. Sub-process form fields

Field	Description
Catalog Item ID #	The mandatory identifier for the sub-process.
Created By	The person who created this sub-process.
Creation Date	The date of creation for the sub-process.
Owner	The sub-process owner.
Current Status	The sub-process's location in its lifecycle.
Short Description	A narrative summary for sub-process.
Assigned Groups	Groups assigned to access this sub-process.
SP Details	
Sub-Process Name	The name of the sub-process.
External Reference Code:	The sub-process number or code for external reference purposes.
Primary Business Unit	The Company BU that "owns" this sub-process. Used for security purposes.
Business Unit(s)	A BU from the selected group above.
Systems	A list of systems related to this sub-process.
Process	The process this sub-process relates to.
Sub-Process Description	A description of the sub-process.
Sub-Process Flow Attachment	The document representing the sub-process flow graphically, such as a Visio file.

Table 4-2. Sub-process form fields

Field	Description
Sub-Process Narrative Attachment	The document representing the process flow verbally, such as a Microsoft Word file.
System Flow Attachment	The document representing the system(s) flow graphically, such as a Visio file.

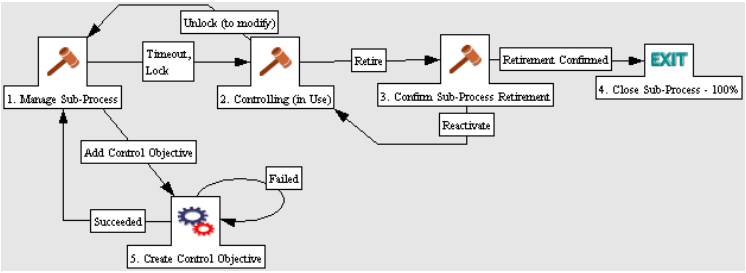


Figure 4-3. Sub-process lifecycle

Table 4-3. Sub-process lifecycle

Step Name	User Security	Description
Create Sub-Process	Corporate SOX Manager	Add a new sub-process to the control catalog.
Manage Sub-Process	Corporate SOX Manager, Business Unit Accounting	Manage the sub-process in order to alter it catalog item or add related control objective(s).
Add Control Objective	Corporate SOX Manager, Business Unit Accounting	Add a control objective related to this sub-process.
Controlling (in use)	Corporate SOX Manager, Business Unit Accounting	The normal state of an active sub-process.
Confirm Sub-Process Retirement	Corporate SOX Manager	A segregated step to confirm sub-process retirement.

To create a sub-process:

1. Log on to Mercury IT Governance Center.

For information on how to log on to the Mercury IT Governance Center, see the *Getting Started* guide.

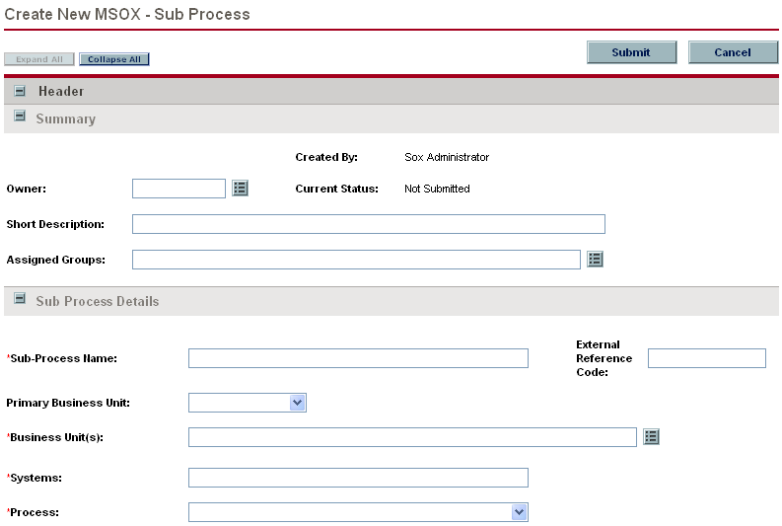
2. From the menu bar, select **Create > Request.**

   The Create From Available Request Types page appears.

3. In the Create From Available Request Types page, from the Request Type drop-down list, select **MSOX - Sub-Process.**

4. In the Create From Available Request Types page, click **Create.**

   The Create New Request page appears, displaying the appropriate sub-process fields.



5. In the Summary section, complete the fields as required.

   Required fields have a red asterisk. All other fields are optional, but are often helpful when others are reviewing the sub-process. For information concerning a specific field, click the **Help** icon next to the field (if available).

6. In the Notes section, enter additional information.

   The Notes section contains fields where notes and information concerning the sub-process can be entered and stored. Typically, when creating a sub-process, you do not need to add a note to it. However, add a note if you want to convey additional information to the reviewers and processors of the sub-process.

7. In the SP Details section, add references to the request.

   In some cases it might be required to reference a Web-accessible file or attach a document or file from a local machine to the sub-process.

8. In the Create New Request page, click **Submit.**

   The sub-process is entered into the control catalog. The Request Creation Confirmed page appears.

Note

Mercury IT Governance Center can be configured to save the request before the request is submitted. To have this feature enabled for your Mercury IT Governance Center, see your application administrator.

After submitting the request, on the Request Creation Confirmed page, you can click the link (Request #) to see the newly generated sub-process's detail page.

9. Once the sub-process has been entered into the control catalog, it is routed along its lifecycle.

Viewing Sub-Processes

The MSOX - Sub-Processes by Process portlet can be added to your Mercury IT Governance Dashboard™. It is most useful to users with the role of corporate SOX manager. The portlet displays a bar chart of active sub-processes, filtered by business unit. *Figure 4-4* shows the MSOX - Sub-Processes by Process portlet.

Figure 4-4. MSOX - Sub-Processes by Process portlet

For information on adding the MSOX - Sub-Processes by Process portlet to your Dashboard, see *Using Control Catalog Portlets* on page 58.

Creating a Control Objective

Control objectives manage risk. Risk is the uncertainty of an event occurring that could have an impact on the achievement of objectives. A control objective is the preventive restatement of a risk.

For example, for the Accounts Payable sub-process, a risk would be that inaccurate purchase amounts may be recorded. The control objective for this risk would be the preventive restatement, "To record the accurate amount of expenses for every purchase."

A control objective can only be created from a sub-process in the Manage Sub-Process lifecycle step.

- *Table 4-4* describes the control objective form.
- *Figure 4-5* shows the control objective lifecycle.
- *Table 4-5* describes the control objective lifecycle, step by step.

Table 4-4. Control objective form fields

Field	Description
Catalog Item ID #	The mandatory identifier for the control objective.
Created By	The person who created this control objective.
Creation Date	The date of creation for the control objective.
Owner	The control objective owner.
Current Status	The control objective's location in its lifecycle.
Short Description	A narrative summary for the control objective.
Assigned Groups	Groups assigned to access this control objective.
CO Details	
Control Objective Name	The reference name for this control objective.
External Reference Code:	The control objective's number or code for external reference purposes.
Control Objective Description	A full description of the control objective.
Primary Risk Type	The nature of the risk the control objective is addressing. Every auditing company will probably edit this to fit their vernacular.

Table 4-4. Control objective form fields [continued]

Field	Description
Risk Description	Risk(s) addressed by this control objective.
Control Objective Importance	The relative importance of this control objective based on the risk level and probability.
Probability of related risk occurring without controls	The rating of risk probability, absent of any controls.
Financial Exposure	The degree of exposure addressed by this control objective.
Assertion Type	The control objective's COSO Assertion Category.
Related Key Accounts	A list of related accounts or legal entities.
Primary Business Unit	The company BU that "owns" this control objective. Used for security purposes.
Business Unit(s)	The company BU this control objective applies to.

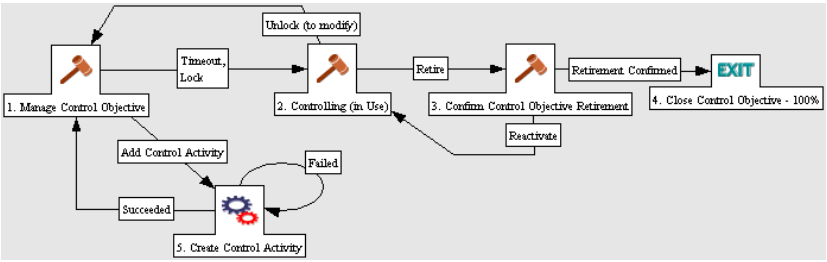


Figure 4-5. Control objective lifecycle

Table 4-5. Control objective lifecycle

Step Name	User Security	Description
Create Control Objective	Corporate SOX Manager, Business Unit Accounting, Sub-Process Owner	Add a new control objective to the control catalog. To assure proper linkage with the sub-process, this shall occur only through the Manage Sub-Process lifecycle step (or importing tool) in the *Sub-process lifecycle*. The control objective owner will often, but not always, be the sub-process owner.
Manage Control Objective	Corporate SOX Manager, Business Unit Accounting, Sub-Process Owner	Manage the control objective in order to alter it or add related control activity. (Read-only except for Corporate SOX Manager.)
Add Control Activity	Corporate SOX Manager, Business Unit Accounting, Sub-Process Owner	Add a control activity related to this control objective. (Read-only except for Corporate SOX Manager.)
Controlling (in use)	Corporate SOX Manager, Business Unit Accounting, Sub-Process Owner	The normal state of an active control objective. (All fields read-only.)
Confirm Control Objective Retirement	Corporate SOX Manager	A segregated step to confirm control objective retirement.

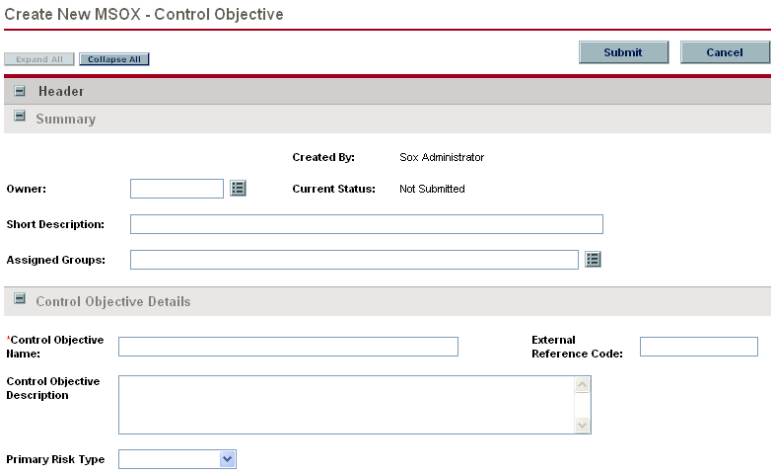
To create a control objective:

1. Open the sub-process for which you want to create a control objective.

   The sub-process should be at the Manage Sub-Process lifecycle step.

2. Click **Add Control Objective.**

   A new window opens, displaying the appropriate control objective fields.



3. In the Summary section, complete the fields as required.

   Required fields have a red asterisk. All other fields are optional, but are often helpful when others are reviewing the control objective. For information concerning a specific field, click the **Help** icon next to the field (if available).

4. In the Notes section, enter additional information.

   The Notes section contains fields where notes and information concerning the control objective can be entered and stored. Typically, when creating a control objective, you do not need to add a note to it. However, add a note if you want to convey additional information to the reviewers and processors of the control objective.

5. In the CO Details section, complete the fields as required.

6. Click **Submit.**

   The control objective is entered into the control catalog. The Request Creation Confirmed page appears.

   After submitting the control objective, on the Request Creation Confirmed page, you can click the link (Request #) to see the newly generated control objective's detail page.

7. Once the control objective has been entered into the control catalog, it is routed along its lifecycle.

Creating a Control Activity

Each control objective is supported by one or more control activities. These control activities may be manual or enabled by computer systems, but should be sufficient to meet the control objectives.

In the Accounts Payable example above, control activities may include:

- Review of a valid invoice to determine the expense amount
- Validation of the invoice amount against a valid purchase order

A control activity can only be created from a control objective in the Manage Control Objective lifecycle step.

- *Table 4-6* describes the control activity form.
- *Figure 4-6* shows the control activity lifecycle.
- *Table 4-7* describes the control activity lifecycle, step by step.

Table 4-6. Control activity form fields

Field	Description
Catalog Item ID #	The mandatory identifier for the control activity.
Created By	The person who created this control activity.
Creation Date	The date of creation for the control activity.
Owner	The control activity owner.
Current Status	The control activity's location in its lifecycle.
Short Description	A narrative summary for the control activity.
Assigned Groups	Groups assigned to access this control activity.
CA Details	
Control Activity Name	The reference name for this control activity.
External Reference Code:	The control activity's number or code for external reference purposes.
Primary Business Unit	The company BU that "owns" this control activity. Used for security purposes.
Business Units	The company BU(s) this control activity applies to.
Frequency	The frequency at which the control activity occurs.

Table 4-6. Control activity form fields [continued]

Field	Description
Key Control (Critical)	Is this control activity critical? • Key = Primary • Non-Critical = Secondary
External Control Reference	The company or internal audit code for reference (may be a historical artifact).
Control Materiality	A quantification of the control activity's importance.
Description	A full description of the control activity. This can be corporate guidelines as to what is to be done specifically for corporate policies.
COSO Component	Which COSO component this control activity relates to.
COSO Objective	Which COSO objective this control activity is related to.
Achievement Means	A description of the manner in which this control activity is met.
Automation Level	The means of implementation for this control activity.
Control Type	Self-explanatory.
Primary Sub-Process Name	Each control activity may apply to more than one sub-process. This field lists the sub-process for which this control activity is most relevant.
Primary Control Objective	Each control activity may apply to more than one control objective. This field lists the control objective for which this control activity is most relevant.

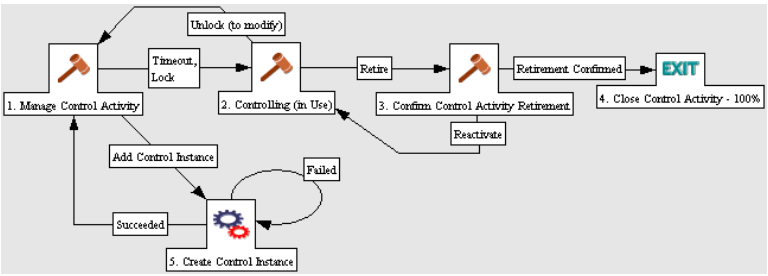


Figure 4-6. Control activity lifecycle

Table 4-7. Control activity lifecycle

Step Name	User Security	Description
Create Control Activity	Corporate SOX Manager, Business Unit Accounting, Sub-Process Owner	Add a new control activity to the control catalog. To assure proper linkage with the control objective, this shall occur only through the Manage Control Objective lifecycle step (or importing tool) in the *Control objective lifecycle*. The control activity owner will often, but not always, be the sub-process owner.
Manage Control Activity	Corporate SOX Manager, Business Unit Accounting, Sub-Process Owner	Manage the control activity in order to alter it or add related control instance(s). (Read-only except for Corporate SOX Manager.)
Add Control Instance	Corporate SOX Manager, Business Unit Accounting, Sub-Process Owner	Add a control instance related to this control activity. (Read-only except for Corporate SOX Manager.)
Controlling (in use)	Corporate SOX Manager, Business Unit Accounting, Sub-Process Owner	The normal state of an active control activity. (All fields read-only.)
Confirm Control Activity Retirement	Corporate SOX Manager	A segregated step to confirm control activity retirement.

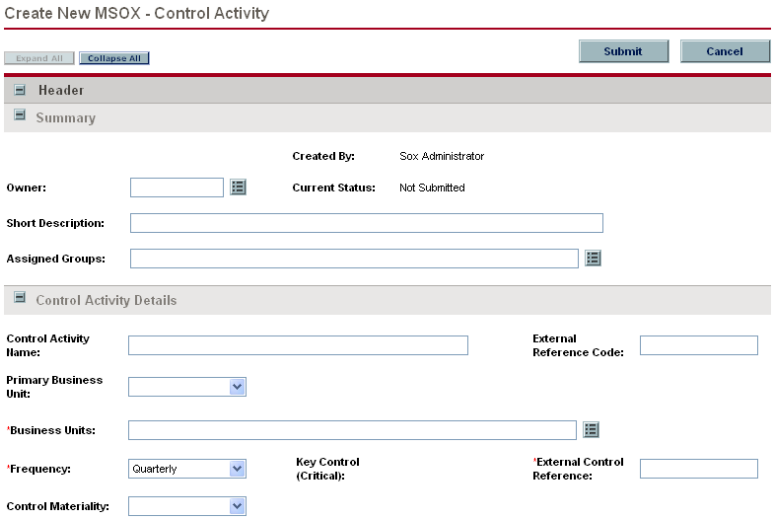
To create a control activity:

1. Open the control objective for which you want to create a control activity.

   The control objective should be at the Manage Control Objective lifecycle step.

2. Click **Add Control Activity.**

   A new window opens, displaying the appropriate control activity fields.



3. In the Summary section, complete the fields as required.

   Required fields have a red asterisk. All other fields are optional, but are often helpful when others are reviewing the control activity. For information concerning a specific field, click the **Help** icon next to the field (if available).

4. In the Notes section, enter additional information.

   The Notes section contains fields where notes and information concerning the control activity can be entered and stored. Typically, when creating a control activity, you do not need to add a note to it. However, add a note if you want to convey additional information to the reviewers and processors of the control activity.

5. In the CA Details section, complete the fields as required.

6. Click **Submit.**

   The control activity is entered into the control catalog. The Request Creation Confirmed page appears.

   After submitting the control activity, on the Request Creation Confirmed page, you can click the link (Request #) to see the newly generated control activity's detail page.

7. Once the control activity has been entered into the control catalog, it is routed along its lifecycle.

Creating a Control Instance

In large corporations, control activities may be implemented differently based on geographic or business unit boundaries, yet often with a corporate standard that serves as guidance. A control instance is the geographic and/or organizational "instance" of a control activity.

A control instance can only be created from a control activity in the Manage Control Activity lifecycle step.

- *Table 4-8* describes the control instance form.
- *Figure 4-7* shows the control instance lifecycle.
- *Table 4-9* describes the control instance lifecycle, step by step.

Table 4-8. Control instance form (Sheet 1 of 3)

Field	Description
Catalog Item ID #	The mandatory identifier for the control instance.
Created By	The person who created this control instance.
Creation Date	The date of creation for the control instance.
Owner	The control instance owner.
Current Status	The control instance's location in its lifecycle.
Short Description	A narrative summary for the control instance.
Assigned Groups	Groups assigned to access this control instance.
CI Details	
Control Instance Name	The reference name for this control instance.
Primary Business Unit	The company BU that "owns" this control instance. Used for security purposes.
Business Units	The company BU(s) this control instance applies to.
Self Assessment Effectiveness	The result of the control instance owner's control assessment.

Table 4-8. Control instance form (Sheet 2 of 3)

Field	Description
Last Assessment Date	Self-explanatory.
External Control #	The company or internal audit code for reference (may be a historical artifact).
Key Control (Critical)	Is this control instance critical? • Key = Primary • Non-Critical = Secondary
Control Materiality	A quantification of the control instance's importance.
Person/ Position Performing Control	The person or role related to the control instance.
Description	A full description of control instance and how it differs from the corporate guidance described in the related control activity.
Frequency	The frequency at which the control instance occurs.
COSO Component	Which COSO component this control instance relates to.
COSO Objective	Which COSO objective this control instance relates to.
Control Type	Self-explanatory.
Achievement Means	A description of the manner in which this control instance is met.
Automation Level	The means of Implementation for this control instance.
Primary Sub-Process Name	Each control instance may apply to more than one sub-process. This field lists the sub-process for which this control instance is most relevant.
Primary Control Objective	Each control instance may apply to more than one control objective. This field lists the control objective for which this control instance is most relevant.
Control Activity Name	Each control instance may apply to more than one control activity. This field lists the control activity for which this control instance is most relevant.

Table 4-8. Control instance form (Sheet 3 of 3)

Field	Description
Control in Place?	Indicates whether the control is in place.
Control Instance last modified	Indicates the date the control instance was last modified. Used for compliance reporting purposes.
Test Details	
Test Description	A description of the control instance test.
Acceptance Criteria	What behavior a successful test would find.
Effectiveness	Results of last test.
Sample Size	Number and type of item examined while conducting the control instance test.
Samples passed in last test	The number of samples passed in the last test.
Last Test Date	Date of last control instance test.
Last Test Fiscal Period	The fiscal month and year the last test was conducted for.
Testing Frequency	How often this control instance needs to be tested.
Next Due Date	The date of next control instance test.

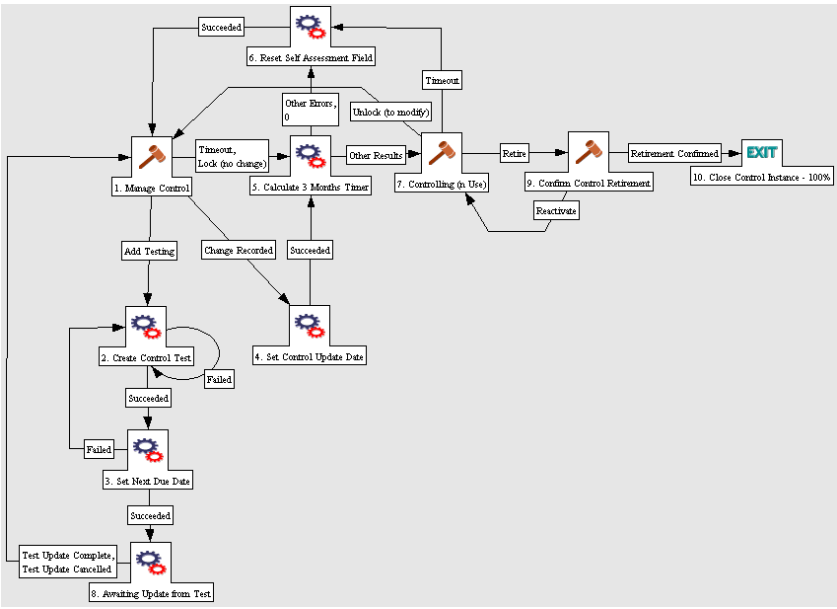


Figure 4-7. Control instance lifecycle

Table 4-9. Control instance lifecycle

Step Name	User Security	Description
Create Control Instance	Corporate SOX Manager, Business Unit Accounting, Sub-Process Owner	To assure proper linkage with the control activity, this shall occur only through the Manage Control Activity lifecycle step (or importing tool) in the *Control activity lifecycle*. The control instance owner will often, but not always, be the sub-process owner.
Manage Control Instance	Corporate SOX Manager, Business Unit Accounting, Sub-Process Owner, Control Activity Owner	Used for modifying the control instance, conducting self-assessment, and adding a test. (All fields read-only for internal audit. Only sub-process owner can conduct self-assessment.)
Calculate 3 Months Timer	Automated	SOX §302 requires quarterly attestation. This timer calculates the next self-assessment period, which will affect a timeout on the Controlling state.

Table 4-9. Control instance lifecycle [continued]

Step Name	User Security	Description
Set Control Update Date	Automated	This step is to capture a timestamp when the control instance is modified for reporting purposes. The normal method will not work, since test results modify the form.
Reset Self-Assessment Field	Automated	When a timeout occurs, triggering the next self-assessment, the field is reset to **Un-assessed.**
Create Control Test	Automated	Kick off the required testing for this control instance. This kicks off the test sequence required for the control. The transition into this step notifies the Internal Audit about potential testing (test may be yearly while self-assessment, which triggered the transition, is only quarterly).
Set Next Due Date	Automated	This automatically generates the next due date based on the frequency.
Awaiting Update from Test	Automated	Automated step based on exited test.
Controlling (in use)	Corporate SOX Manager, Business Unit Accounting, Sub-Process Owner	The normal state of an active control instance. (All fields read-only.)
Confirm Control Retirement	Corporate SOX Manager, Sub-Process Owner	A segregated step to confirm control activity retirement.

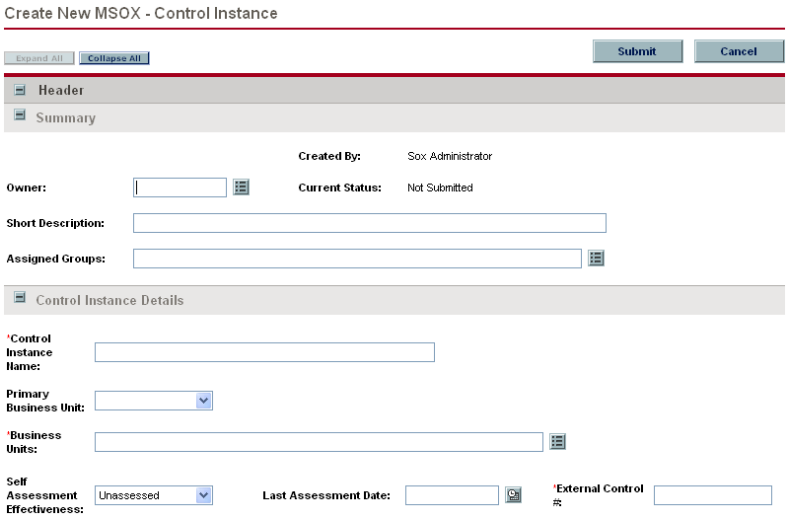
To create a control instance:

1. Open the control activity for which you want to create a control instance.

   The control activity should be at the Manage Control Activity lifecycle step.

2. Click **Add Control Instance.**

   A new window opens, displaying the appropriate control instance fields.



3. In the Summary section, complete the fields as required.

   Required fields have a red asterisk. All other fields are optional, but are often helpful when others are reviewing the control instance. For information concerning a specific field, click the **Help** icon next to the field (if available).

4. In the Notes section, enter additional information.

   The Notes section contains fields where notes and information concerning the control instance can be entered and stored. Typically, when creating a control instance, you do not need to add a note to it. However, add a note if you want to convey additional information to the reviewers and processors of the control instance.

5. In the CI Details and Test Details sections, complete the fields as required.

6. Click **Submit.**

   The control instance is entered into the control catalog. The Request Creation Confirmed page appears.

   After submitting the control instance, on the Request Creation Confirmed page, you can click the link (Request #) to see the newly generated control instance's detail page.

7. Once the control instance has been entered into the control catalog, it is routed along its lifecycle.

Viewing Control Instances

The Accelerator includes several portlets that can be used to quickly view control instances grouped by useful categories. These help monitor the effectiveness of SOX controls and identify ineffective controls.

MSOX - Control Instance by Self Assessment Effectiveness Portlet

SOX Section 302 requires periodic reporting of attestation for a control by its individual owner, which is captured as Self Assessment Effectiveness. The MSOX - Control Instance by Self Assessment Effectiveness portlet is most useful to users with the role of corporate SOX manager, as well as corporate and business unit executives, providing visibility into the effectiveness of controls in the organization. It displays a pie chart of active control activities, grouped and color-coded by Self-Assessment Effectiveness. *Figure 4-8* shows the MSOX - Control Instance by Self Assessment Effectiveness portlet. *Table 4-10* describes the portlet's filter fields.

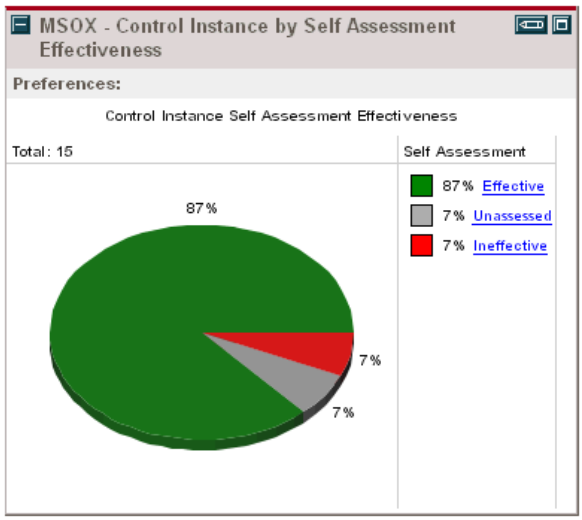


Figure 4-8. MSOX - Control Instance by Self Assessment Effectiveness portlet

Table 4-10. MSOX - Control Instance by Self-Assessment Effectiveness portlet filter fields

Field	Description
Business Unit	The business unit for which control instances are being viewed.
Display preferences summary on portlet	Indicates whether to display the filtering selections on the portlet itself.

MSOX - Control Instance by Effectiveness Portlet

SOX Section 404 requires periodic testing of internal controls. These testing results are propagated to the control instance as Effectiveness. The MSOX - Control Instance by Effectiveness portlet is most useful to users with the role of corporate SOX manager, as well as corporate and business unit executives, providing visibility into the effectiveness of controls in the organization. It displays a pie chart of active control activities, grouped and color-coded by Effectiveness. *Figure 4-9* shows the MSOX - Control Instance by Effectiveness portlet. *Table 4-11* describes the portlet's filter fields.

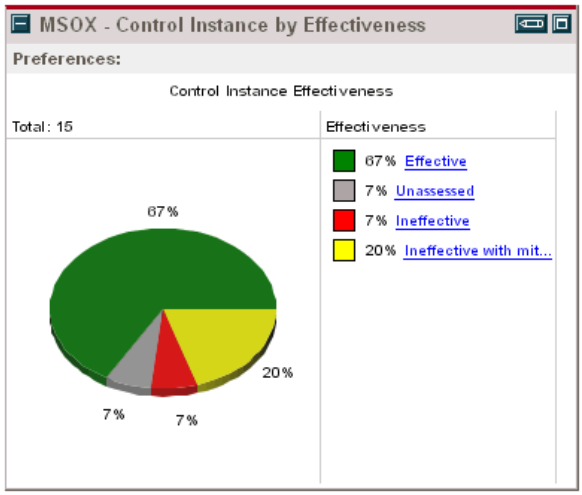


Figure 4-9. MSOX - Control Instance by Effectiveness portlet

Table 4-11. MSOX - Control Instance by Effectiveness portlet filter fields

Field	Description
Business Unit	The business unit for which control instances are being viewed.
Display preferences summary on portlet	Indicates whether to display the filtering selections on the portlet itself.

MSOX - Non-Effective Control Instance List Portlet

The MSOX - Non-Effective Control Instance List portlet is most useful to users with the role of corporate SOX manager, as well as corporate and business unit executives, helping to quickly identify ineffective controls in a business unit. It displays a list of control instances for a given Business Unit marked as **Ineffective.** *Figure 4-10* shows the MSOX - Non-Effective Control Instance List portlet. *Table 4-12* describes the portlet's filter fields.

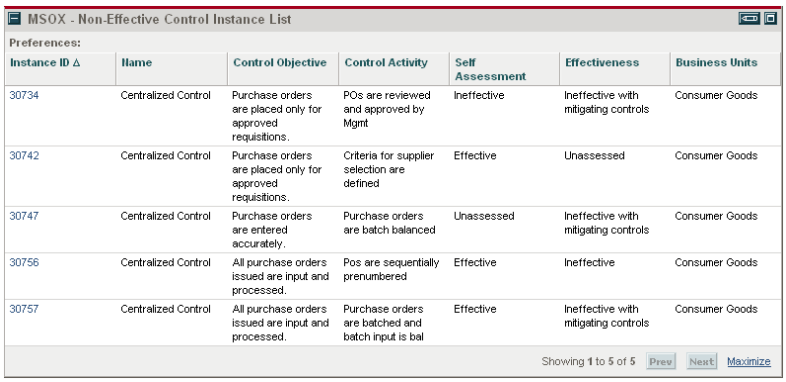


Figure 4-10. MSOX - Non-Effective Control Instance List portlet

Table 4-12. MSOX - Non-Effective Control Instance List portlet filter fields

Field	Description
Business Unit	The business unit for which control instances are being viewed.
Display preferences summary on portlet	Indicates whether to display the filtering selections on the portlet itself.
Sort By	Choose the portlet column to sort data by.

MSOX - Non-Effective Control Instances by Sub-Process Portlet

The MSOX - Non-Effective Control Instances by Sub-Process portlet is most useful to users with the role of corporate SOX manager, as well as corporate and business unit executives, helping to quickly identify ineffective controls for sub-processes. It displays a bar chart representing control activities marked **Ineffective,** striped by sub-process. *Figure 4-11* shows the MSOX - Non-Effective Control Instances by Sub-Process portlet. *Table 4-13* describes the portlet's filter fields.

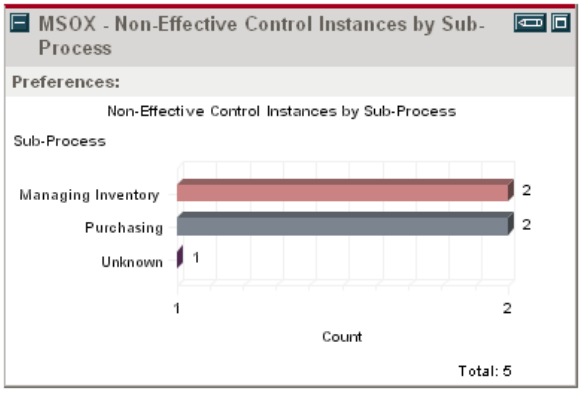


Figure 4-11. MSOX - Non-Effective Control Instances by Sub-Process Portlet

Table 4-13. MSOX - Non-Effective Control Instances by Sub-Process portlet filter fields

Field	Description
Business Unit	The business unit for which control instances are being viewed.
Display preferences summary on portlet	Indicates whether to display the filtering selections on the portlet itself.

Using Control Catalog Portlets

To add Mercury Sarbanes-Oxley Corporate Assessment Accelerator portlets to your Dashboard:

1. Log on to Mercury IT Governance Center.
2. From the menu bar, select **Dashboard > Personalize Dashboard.**

3. Select the tab of the Dashboard page you want to configure.

   The selected Dashboard page is displayed in the Personalize Dashboard page.

4. On the Personalize Dashboard page, click **Add Portlets.**

   The Add Portlets to Dashboard Page opens.

5. Search for the portlets to add.

   - To list all of the portlets, click **Find Portlets.** The Select Portlets to Add section is added to Add Portlets to Dashboard Page. The Select Portlets to Add section lists all of the portlets.

   - To list specific portlets:

     a. In Portlet Name, enter all or part of the portlet's name.

     b. In Category, select the portlet's category from the drop-down list.

     c. Click **Find Portlets.**

   The Select Portlets to Add section is added to Add Portlets to Dashboard Page. The Select Portlets to Add section lists all of the portlets matching the search criteria.

6. In the Select Portlets to Add section, select one or more portlets and click **Add.**

   The selected portlets are added to the Dashboard page.

7. On the Personalize Dashboard page, click **Done.**

   The changes to the Dashboard are saved.

A Mercury IT Governance Center administrator or other user with the proper level of access can distribute sets of portlets to business unit owners according to their respective responsibilities.

Chapter

5

Managing the Control Assessment Process

In This Chapter:

Managing the Control Assessment Process: Overview

Sarbanes-Oxley Section 404 requires that corporate management assess the effectiveness of internal controls over financial reporting periodically, based on a control framework that management must specify, often COSO. These activities include periodic testing of control instances.

As tests are run, they often uncover issues. This chapter describes the processes and activities surrounding issues.

Creating a Test

The Mercury Sarbanes-Oxley Corporate Assessment Accelerator provides a best-practice framework for the control instance testing process that can be run periodically. The frequency of testing depends on several factors, such as the severity of the issue a control instance is attempting to mitigate.

- *Table 5-1* describes the test form.
- *Figure 5-1* shows the test lifecycle.
- *Table 5-2* describes the test lifecycle, step by step.

Table 5-1. Test form fields

Field	Description
Testing Details	
Tester	The person who will conduct the test.
Business Unit	The company BU the tested control instance resides in (or primarily in).
Testing Frequency	How often this control instance needs to be tested.
Test Description	A description of the test.
Acceptance Criteria	What behavior a successful test would find.
Test Fiscal Period	The fiscal month and year the last test was conducted for. This date will often be earlier than the actual test date.
Due Date	The test's due date.
Test Date	The date the test was conducted.
Sample Size	Number and type of item examined while conducting the test.
Test Outcome	The results of the test.

Table 5-1. Test form fields [continued]

Field	Description
Samples Passed	The number of samples passed.
Test Results	A text description of testing activity and results.
Owner Response	The control owner's notation about the testing. This field is only editable at the Review by Owner lifecycle step.
Internal Audit Comments	Internal audit's notation about the testing. Only the Internal Audit role or Corporate SOX Manager can edit this field.
Workpaper Reference	Any reference document used by involved parties.
Primary Sub-Process Name	Each control instance may apply to more than one sub-process. This field lists the sub-process for which this control instance is most relevant.
Control Activity Name	Each control instance may apply to more than one control activity. This field lists the control activity for which this control instance is most relevant.
Control Instance Name	The control instance related to the test.
Test Summary	
Request #	The mandatory identifier for the test.
Created By	The person who created this test.
Owner	The person responsible for this test. (Read only display based on auto-generated or previous selection.)
Assigned Groups	Groups assigned to access this test.

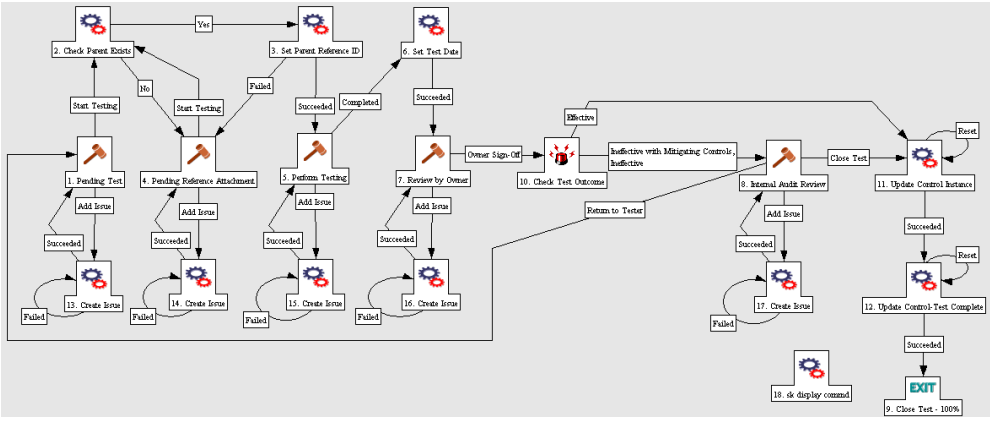


Figure 5-1. Test lifecycle

Table 5-2. Test lifecycle

Step Name	User Security	Description
Create Test	Corporate SOX Manager, Sub-Process Owner, [Designated Tester]	To assure proper linkage with the control instance as well as automatically populating certain required fields, this shall occur only through the Manage Control Instance lifecycle step in the *Control instance lifecycle*. The control instance owner is the default owner of the test. The person who spawns the test (normally someone from internal audit role) is the tester.
Pending Test	Corporate SOX Manager, Sub-Process Owner, [Designated Tester]	The step where another user may be assigned to own or conduct the step.
Perform Testing	Corporate SOX Manager, Sub-Process Owner, [Designated Tester]	Conduct the test.
Check Test Outcome	Automated	An automated step which validates that all required fields were entered.

Table 5-2. Test lifecycle [continued]

Step Name	User Security	Description
Review by Owner	Corporate SOX Manager, Business Unit Accounting, Sub-Process Owner, [Designated Owner]	The owner assesses the test results and can spawn an issue and/or add comments.
Check Test Outcome	Automated	An automated step to route the test to the appropriate lifecycle step.
Internal Audit Review	Corporate SOX Manager, Internal Audit Role	Required only if a control is considered ineffective as a result of the test; an auditor analyzes test results and takes action.
Update Control Instance Fields	Automated	An automated step to link test results to fields in the control instance form: • Last Test Date • Last Test Fiscal Period • Effectiveness • Next Test Date
Updates Control Test Complete	Automated	An automated step that moves the control instance form out of the Awaiting Update from Test lifecycle step to the Manage Control Instance step.

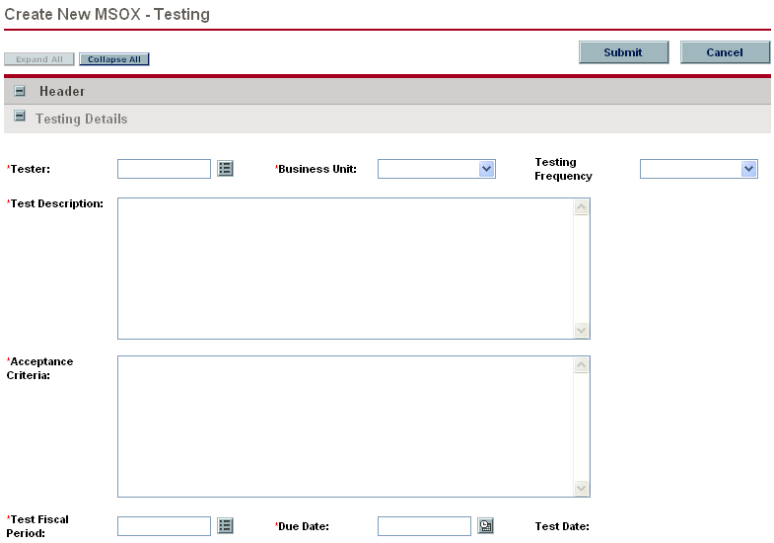
To create a test:

1. Open the control instance for which you want to create a test.

   The control instance should be at the Manage Control Instance lifecycle step.

2. Click **Add Testing.**

   A new window opens, displaying the appropriate test fields.



3. In the Summary section, complete the fields as required.

   Required fields have a red asterisk. All other fields are optional, but are often helpful when others are reviewing the test. For information concerning a specific field, click the **Help** icon next to the field (if available).

4. In the Notes section, enter additional information.

   The Notes section contains fields where notes and information concerning the test can be entered and stored. Typically, when creating a test, you do not need to add a note to it. However, add a note if you want to convey additional information to the reviewers and processors of the test.

5. In the Testing Details section, complete the fields as required.

6. Click **Submit.**

   The test is started out along its lifecycle. The Request Creation Confirmed page appears.

   After submitting the test, on the Request Creation Confirmed, you can click the link (Request #) to see the newly generated test's detail page.

Viewing Tests

The Accelerator includes several portlets that can be used to quickly view tests grouped by useful categories, and evaluate control test results.

For information on adding portlets to your Dashboard, see *Using Control Catalog Portlets* on page 58.

MSOX - Active Tests by Status Portlet

The MSOX - Active Tests by Status portlet is most useful to users with the role of corporate SOX manager, as well as corporate and business unit executives, providing visibility into in-progress tests. It displays a bar chart of all active tests in the system, grouped by status. *Figure 5-2* shows the MSOX - Active Tests by Status portlet. *Table 5-3* describes the portlet's filter fields.

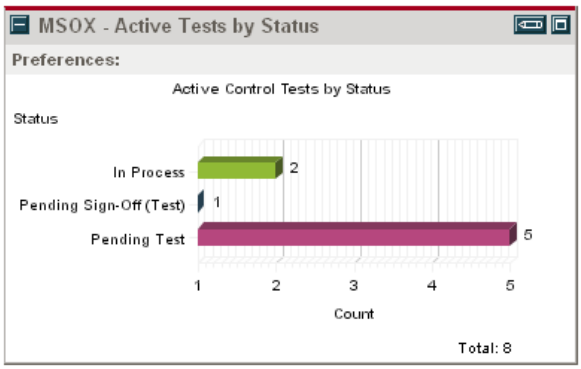


Figure 5-2. MSOX - Active Tests by Status portlet

Table 5-3. MSOX - Active Tests by Status portlet filter fields

Field	Description
Business Unit	The business unit for which tests are being viewed.
Fiscal Period	The period for which tests are being viewed.
Display preferences summary on portlet	Indicates whether to display the filtering selections on the portlet itself.

MSOX - Preliminary Test Results by Outcome Portlet

The MSOX - Preliminary Test Results by Outcome portlet is most useful to users with the role of corporate SOX manager, as well as corporate and business unit executives, helping to establish trends for test results for the most recent test period (fiscal year or quarter). It displays a pie chart of all tests for that period, grouped by their results. *Figure 5-3* shows the MSOX - Preliminary Test Results by Outcome portlet. *Table 5-4* describes the portlet's filter fields.

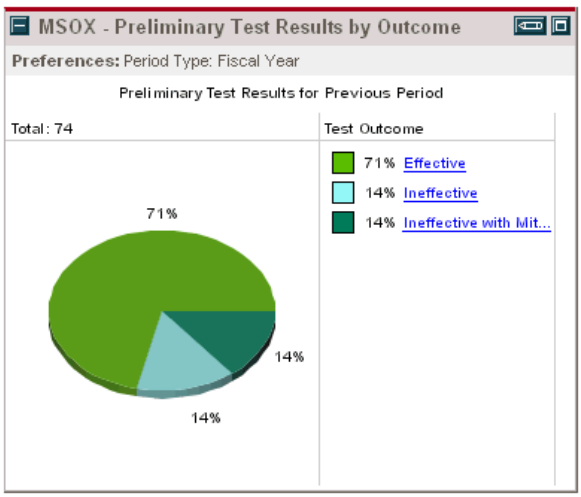


Figure 5-3. MSOX - Preliminary Test Results by Outcome portlet

Table 5-4. MSOX - Preliminary Test Results by Outcome portlet filter fields

Field	Description
Business Unit	The business unit for which tests are being viewed.
Period Type	The type of time period for which tests are being viewed.
Display preferences summary on portlet	Indicates whether to display the filtering selections on the portlet itself.

MSOX - Closed Tests by Outcome Portlet

The MSOX - Closed Tests by Outcome portlet is most useful to users with the role of corporate SOX manager, as well as corporate and business unit executives. It displays a bar chart of all tests in the system, grouped by their outcome. *Figure 5-4* shows the MSOX - Closed Tests by Outcome portlet. *Table 5-5* describes the portlet's filter fields.

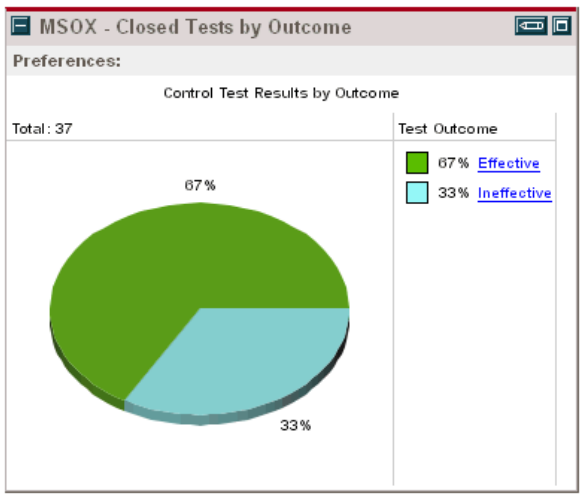


Figure 5-4. MSOX - Closed Tests by Outcome portlet

Table 5-5. MSOX - Closed Tests by Outcome portlet filter fields

Field	Description
Business Unit	The business unit for which tests are being viewed.
Fiscal Period	The period for which tests are being viewed.
Display preferences summary on portlet	Indicates whether to display the filtering selections on the portlet itself.

Chapter

6

Managing the Issue Remediation Process

In This Chapter:

Managing the Issue Remediation Process: Overview

Sarbanes-Oxley Section 404 requires that corporate management assess the effectiveness of internal controls over financial reporting periodically, based on a control framework that management must specify, often COSO. These activities include periodic testing of control instances.

As tests are run, they often uncover issues. Issues can also be created independently of testing. This kicks off a process for remediation. The urgency for issue resolution depends on the severity. The remediation of a control deficiency may involve application, process or control changes. Remediation is complete when the documentation in the control catalog is updated and a subsequent re-test of the remediated control confirms its effectiveness.

Creating an Issue

Issues can be created at any time, and thus can be linked to control instances directly, without a test occurring.

- *Table 6-1* describes the issue form.
- *Figure 6-1* shows the issue lifecycle.
- *Table 6-2* describes the issue lifecycle, step by step.

Table 6-1. Issue form fields

Field	Description
Request #	The mandatory identifier for the issue.
Created By	The person who created this issue.
Owner	The issue's owner, by default, is the same person who acted on the test. If the issue did not come from a test, this field is blank.
Assigned Groups	Groups assigned to access this issue.
Priority	The urgency for this issue's resolution.
Short Description	A short description of the issue.
Issue Details	
Description	A full description of the issue.
Issue Type	The category of the issue.

Table 6-1. Issue form fields [continued]

Field	Description
Other Issue Type	If **Other** was chosen from Issue Type, this text field (maximum character length: 30) is used to describe it.
Mitigating Control Instance (if applicable)	If **1** was chosen from Issue Type, this becomes mandatory and the text field (maximum character length: 60) is used to describe the mitigating control.
Business Unit	The BU that relates to the issue.
Primary Sub-Process Name	Each issue may apply to more than one sub-process. This field lists the sub-process for which this issue is most relevant.
Impacted Sub-Processes	Sub-processes that are affected by this issue.
Primary Control Activity	Each issue may apply to more than one control activity. This field lists the control activity for which this issue is most relevant.
Impacted Control Instance	The reference name for the related control instance.
Resolution	
Potential Exposure	The magnitude of risk associated with this issue.
Financial Impact	A text description of financial impact associated with this issue.
Remediation	The plan for resolving this issue.
Target Completion Date	The target completion date for the issue's resolution.
Follow-up Date	The follow-up date for the issue's resolution.
Start Date	The start date for the issue's resolution.
Actual Completion Date	The actual completion date for the issue's resolution.

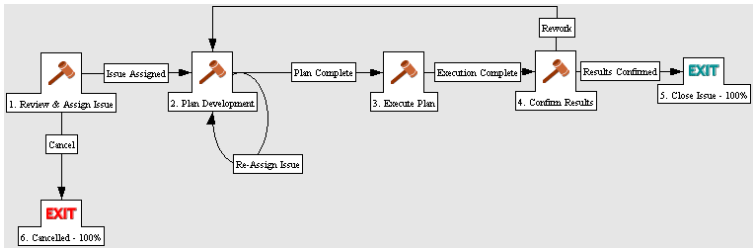


Figure 6-1. Issue lifecycle

Table 6-2. Issue lifecycle

Step Name	User Security	Description
Create Issue	Corporate SOX Manager, Internal Audit Role	To assure proper linkage with the test as well as automatically populating certain required fields, this shall normally occur only through the Spawn Issue lifecycle step in the *Test lifecycle*.
Review and Assign Issue	Corporate SOX Manager, Sub-Process Owner, Internal Audit Role	The validity and scope of the issue are reviewed and the issue is assigned to its resolution person.
Plan Development	Corporate SOX Manager, Sub-Process Owner, Internal Audit Role, [Assigned To User]	The remediation plan for the issue is developed here. Also, the issue can be assigned to a different user in this step.
Execute Plan	Corporate SOX Manager, Sub-Process Owner, Internal Audit Role, [Assigned To User]	The plan to remediate the issue is implemented here.
Results Confirmed	Corporate SOX Manager, Sub-Process Owner, Internal Audit Role	Audit or sub-process owner confirms that remediation is complete.

Creating an Issue from a Test

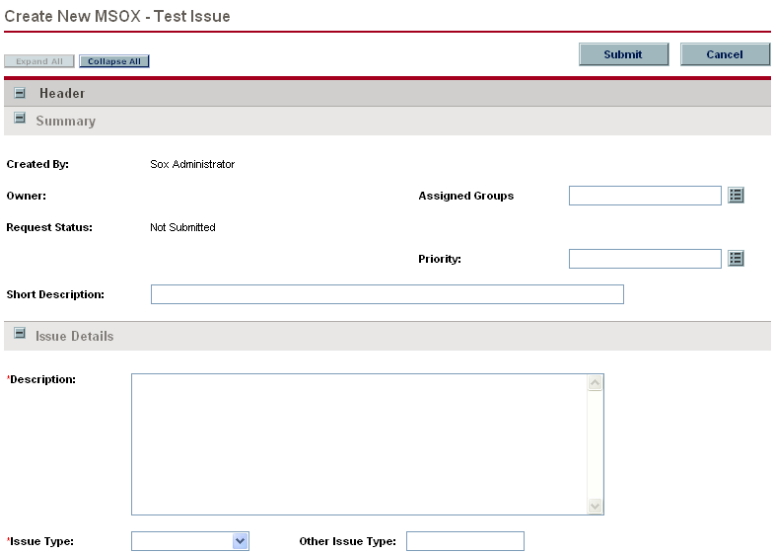
To create a issue from a test:

1. Open the test for which you want to create an issue.

   The test should be at the Spawn Issue lifecycle step.

2. Click **Add Issue.**

   A new window opens, displaying the appropriate issue fields.



3. In the Summary section, complete the fields as required.

   Required fields have a red asterisk. All other fields are optional, but are often helpful when others are reviewing the issue. For information concerning a specific field, click the **Help** icon next to the field (if available).

4. In the Notes section, enter additional information.

   The Notes section contains fields where notes and information concerning the issue can be entered and stored. Typically, when creating an issue, you do not need to add a note to it. However, add a note if you want to convey additional information to the reviewers and processors of the issue.

5. In the Issue Details and Resolution sections, complete the fields as required.

6. Click **Submit.**

The issue is started out along its lifecycle. The Request Creation Confirmed page appears.

After submitting the issue, on the Request Creation Confirmed page, you can click the link (Request #) to see the newly generated issue's detail page.

Creating an Issue Independently

To create an issue independently of a test:

1. Log on to Mercury IT Governance Center.

   For information on how to log on to the Mercury IT Governance Center, see the *Getting Started* guide.

2. From the menu bar, select **Create > Request.**

   The Create From Available Request Types page appears.

3. In the Create From Available Request Types page, from the Request Type drop-down list, select **MSOX - Test Issue.**

4. In the Create From Available Request Types page, click **Create.**

   The Create New Request page appears, displaying the appropriate issue fields.

5. In the Summary section, complete the fields as required.

   Required fields have a red asterisk. All other fields are optional, but are often helpful when others are reviewing the issue. For information concerning a specific field, click the **Help** icon next to the field (if available).

6. In the Notes section, enter additional information.

   The Notes section contains fields where notes and information concerning the issue can be entered and stored. Typically, when creating an issue, you do not need to add a note to it. However, add a note if you want to convey additional information to the reviewers and processors of the issue.

7. In the Issue Details and Resolution sections, complete the fields as required.

8. Click **Submit.**

The issue is started out along its lifecycle. The Request Creation Confirmed page appears.

After submitting the issue, on the Request Creation Confirmed, you can click the link (Request #) to see the newly generated issue's detail page.

Viewing Issues

The Accelerator includes several portlets that can be used to quickly view issues grouped by useful categories, providing real-time visibility into all issues related to controls and allowing managers to resolve these issues more efficiently.

For information on adding portlets to your Dashboard, see *Using Control Catalog Portlets* on page 58.

MSOX - Open Issues by Status Portlet

The MSOX - Open Issues by Status portlet is most useful to users with the role of corporate SOX manager, as well as corporate and business unit executives. It displays a pie chart of all active issues in the system, grouped by status. *Figure 6-2* shows the MSOX - Open Issues by Status portlet. *Table 6-3* describes the portlet's filter fields.

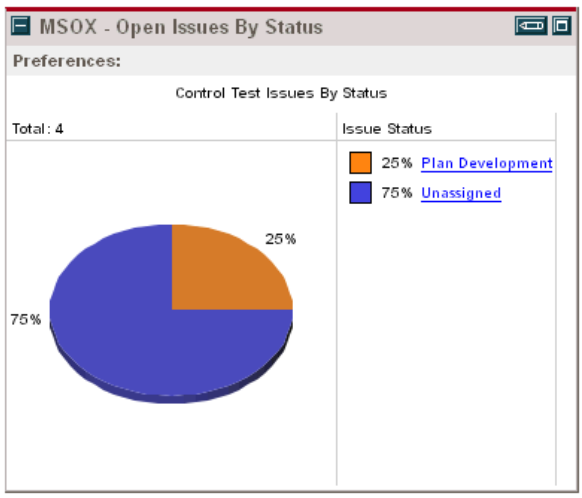


Figure 6-2. MSOX - Open Issues By Status portlet

Table 6-3. MSOX - Open Issues by Status portlet filter fields

Field	Description
Business Unit	The business unit for which issues are being viewed.
Display preferences summary on portlet	Indicates whether to display the filtering selections on the portlet itself.

MSOX - Open Issues by Priority Portlet

The MSOX - Open Issues by Priority portlet is most useful to users with the role of corporate SOX manager, as well as corporate and business unit executives. It displays a pie chart of all active issues in the system, grouped by priority. *Figure 6-3* shows the MSOX - Open Issues by Priority portlet. *Table 6-4* describes the portlet's filter fields.

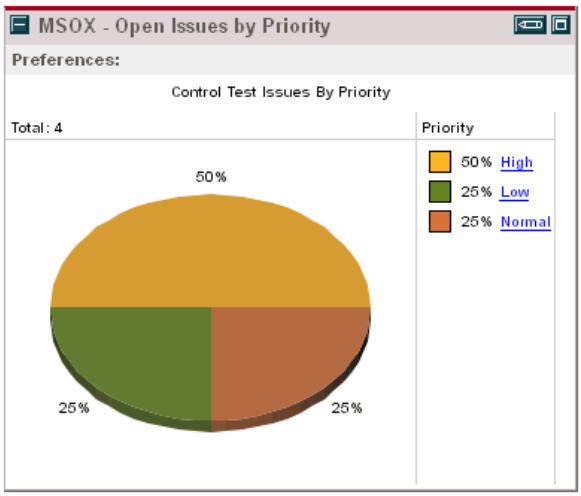


Figure 6-3. MSOX - Open Issues by Priority portlet

Table 6-4. MSOX - Open Issues by Priority portlet filter fields

Field	Description
Business Unit	The business unit for which issues are being viewed.
Display preferences summary on portlet	Indicates whether to display the filtering selections on the portlet itself.

MSOX - High Priority Issues for Business Unit Portlet

The MSOX - High Priority Issues for Business Unit portlet is most useful to users with the role of corporate SOX manager, as well as corporate and business unit executives. It displays a list of open issues for a given business unit. *Figure 6-4* shows the MSOX - High Priority Issues for Business Unit portlet. *Table 6-5* describes the portlet's filter fields.

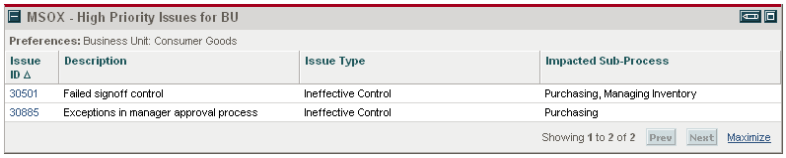


Figure 6-4. MSOX - High Priority Issues for Business Unit portlet

Table 6-5. MSOX - High Priority Issues for Business Unit portlet filter fields

Field	Description
Business Unit	The business unit for which issues are being viewed.
Display preferences summary on portlet	Indicates whether to display the filtering selections on the portlet itself.
Sort By	Choose the portlet column to sort data by.

Chapter

7

Supporting Attestation and External Audit

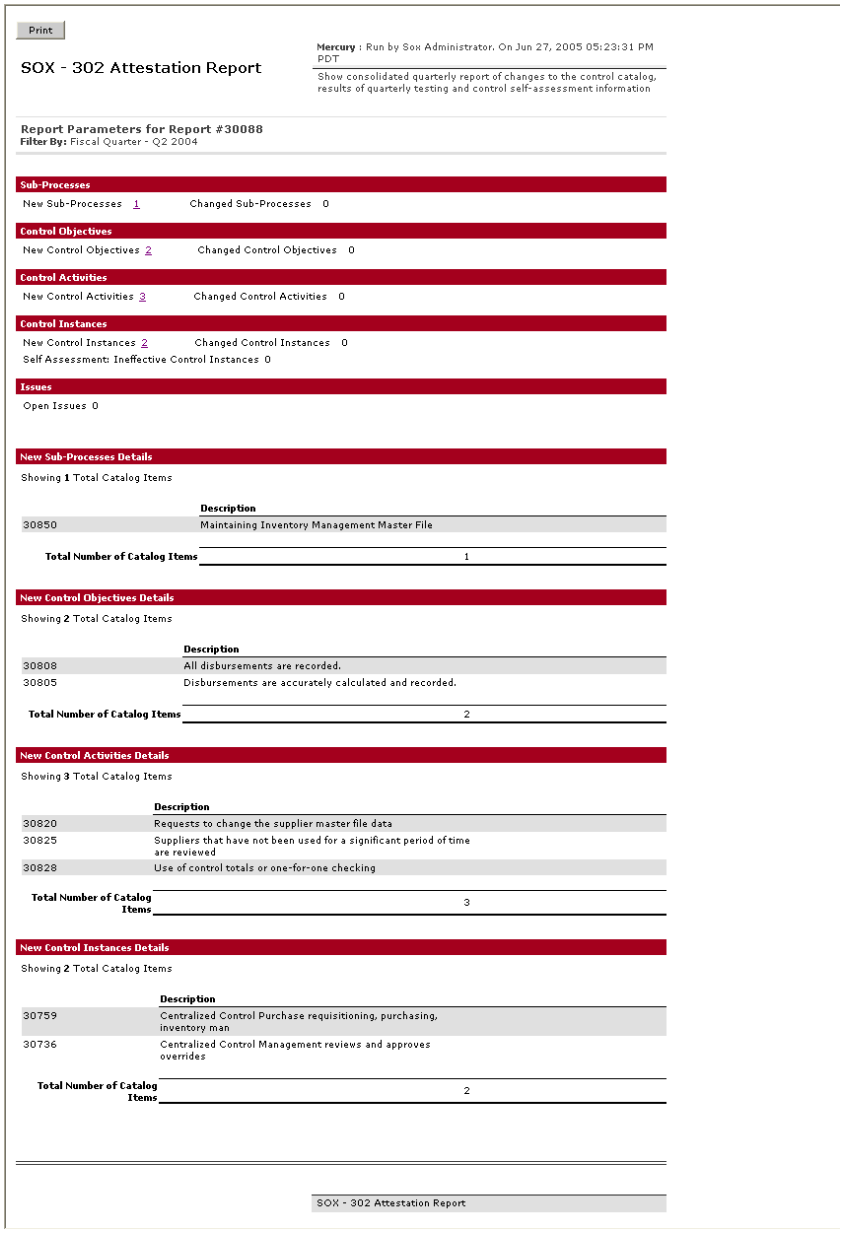
In This Chapter:

Supporting Attestation and External Audit: Overview

Sarbanes-Oxley (SOX) Section 302 requires management to attest quarterly regarding the effectiveness of internal controls. Section 404 requires a similar report, including the disclosure of all material weaknesses. The Mercury Sarbanes-Oxley Corporate Assessment Accelerator provides reports that help speed compliance with these requirements.

MSOX - 302 Attestation Report

The MSOX - 302 Attestation report produces a consolidated quarterly report of changes to the control catalog, and control self-assessment information; results of quarterly testing can also be included. *Figure 7-1* shows an example of typical report output. *Table 7-1* describes the report's filter fields.



Print

SOX - 302 Attestation Report

Mercury : Run by Sox Administrator. On Jun 27, 2005 05:23:31 PM PDT

Show consolidated quarterly report of changes to the control catalog, results of quarterly testing and control self-assessment information

Report Parameters for Report #30088
Filter By: Fiscal Quarter - Q2 2004

Sub-Processes

New Sub-Processes 1 Changed Sub-Processes 0

Control Objectives

New Control Objectives 2 Changed Control Objectives 0

Control Activities

New Control Activities 3 Changed Control Activities 0

Control Instances

New Control Instances 2 Changed Control Instances 0

Self Assessment: Ineffective Control Instances 0

Issues

Open Issues 0

New Sub-Processes Details

Showing **1** Total Catalog Items

	Description
30850	Maintaining Inventory Management Master File
Total Number of Catalog Items	1

New Control Objectives Details

Showing **2** Total Catalog Items

	Description
30808	All disbursements are recorded.
30805	Disbursements are accurately calculated and recorded.
Total Number of Catalog Items	2

New Control Activities Details

Showing **3** Total Catalog Items

	Description
30820	Requests to change the supplier master file data
30825	Suppliers that have not been used for a significant period of time are reviewed
30828	Use of control totals or one-for-one checking
Total Number of Catalog Items	3

New Control Instances Details

Showing **2** Total Catalog Items

	Description
30759	Centralized Control Purchase requisitioning, purchasing, inventory man
30736	Centralized Control Management reviews and approves overrides
Total Number of Catalog Items	2

SOX - 302 Attestation Report

Figure 7-1. MSOX - 302 Attestation report output

Table 7-1. MSOX - 302 Attestation report filter fields

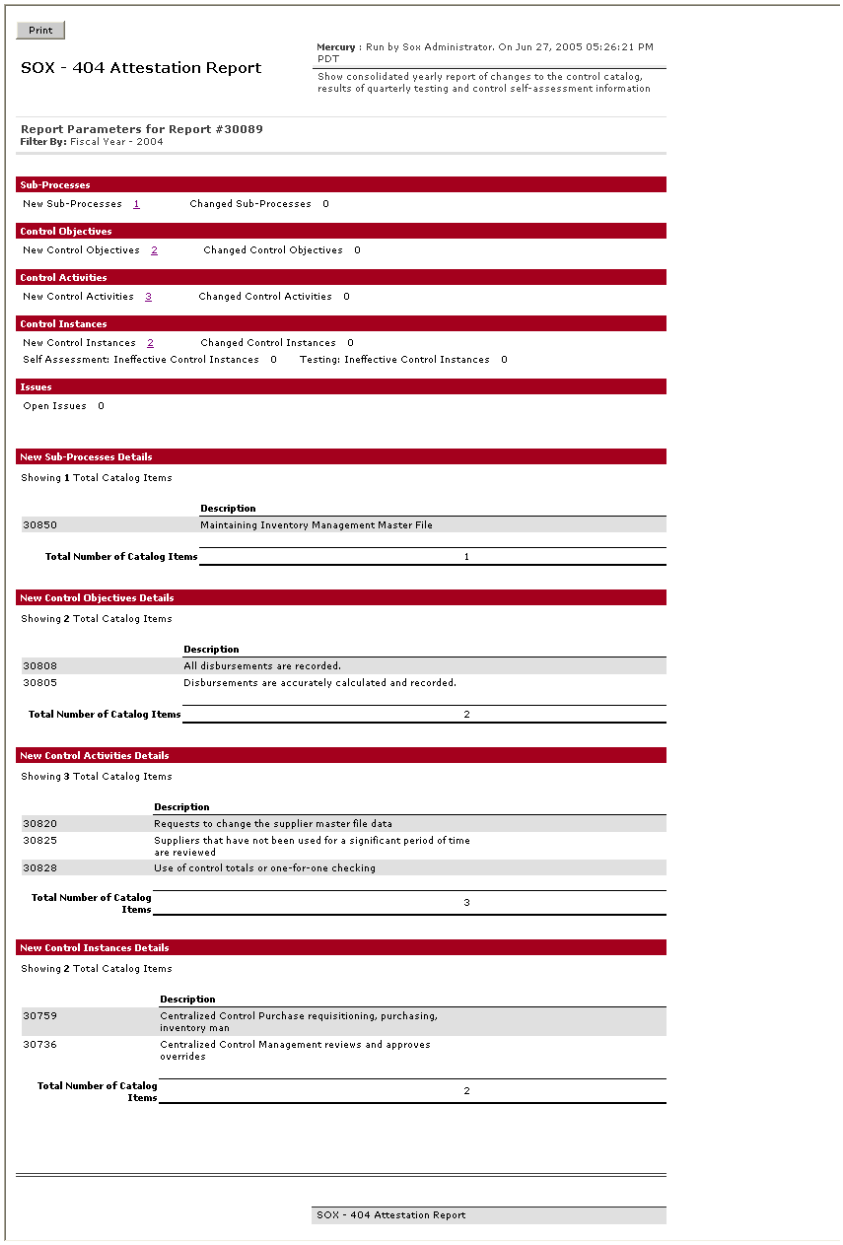
Field	Description
Fiscal Quarter	Specifies the fiscal quarter to report for.
Sub-Process Request Type	Specifies the request type in the Mercury IT Governance Center that represents sub-processes.

Table 7-1. MSOX - 302 Attestation report filter fields [continued]

Field	Description
Control Objective Request Type	Specifies the request type in the Mercury IT Governance Center that represents control objectives.
Control Activity Request Type	Specifies the request type in the Mercury IT Governance Center that represents control activities.
Control Instance Request Type	Specifies the request type in the Mercury IT Governance Center that represents control instances.
Issue Request Type	Specifies the request type in the Mercury IT Governance Center that represents issues.

MSOX - 404 Attestation Report

The MSOX - 404 Attestation report produces a consolidated yearly report of changes to the control catalog and control self-assessment information; results of yearly testing are required. *Figure 7-2* shows an example of typical report output. *Table 7-2* describes the report's filter fields.



Print

SOX - 404 Attestation Report

Mercury : Run by Sox Administrator. On Jun 27, 2005 05:26:21 PM PDT

Show consolidated yearly report of changes to the control catalog, results of quarterly testing and control self-assessment information

Report Parameters for Report #30089
Filter By: Fiscal Year - 2004

Sub-Processes

New Sub-Processes 1 Changed Sub-Processes 0

Control Objectives

New Control Objectives 2 Changed Control Objectives 0

Control Activities

New Control Activities 3 Changed Control Activities 0

Control Instances

New Control Instances 2 Changed Control Instances 0
Self Assessment: Ineffective Control Instances 0 Testing: Ineffective Control Instances 0

Issues

Open Issues 0

New Sub-Processes Details

Showing **1** Total Catalog Items

	Description
30850	Maintaining Inventory Management Master File
Total Number of Catalog Items	1

New Control Objectives Details

Showing **2** Total Catalog Items

	Description
30808	All disbursements are recorded.
30805	Disbursements are accurately calculated and recorded.
Total Number of Catalog Items	2

New Control Activities Details

Showing **3** Total Catalog Items

	Description
30820	Requests to change the supplier master file data
30825	Suppliers that have not been used for a significant period of time are reviewed
30828	Use of control totals or one-for-one checking
Total Number of Catalog Items	3

New Control Instances Details

Showing **2** Total Catalog Items

	Description
30759	Centralized Control Purchase requisitioning, purchasing, inventory man
30736	Centralized Control Management reviews and approves overrides
Total Number of Catalog Items	2

SOX - 404 Attestation Report

Figure 7-2. MSOX - 404 Attestation report output

Table 7-2. MSOX - 404 Attestation report filter fields

Field	Description
Fiscal Quarter	Specifies the fiscal year to report for.
Sub-Process Request Type	Specifies the request type in the Mercury IT Governance Center that represents sub-processes.
Control Objective Request Type	Specifies the request type in the Mercury IT Governance Center that represents control objectives.
Control Activity Request Type	Specifies the request type in the Mercury IT Governance Center that represents control activities.
Control Instance Request Type	Specifies the request type in the Mercury IT Governance Center that represents control instances.
Testing Request Type	Specifies the request type in the Mercury IT Governance Center that represents tests.
Issue Request Type	Specifies the request type in the Mercury IT Governance Center that represents issues.

Using Reports

To use reports provided by the Accelerator:

1. Log on to Mercury IT Governance Center.
2. From the menu bar, select **Reports > Submit New Report.**

   The Submit New Report page appears.
3. Select a report.

   The following lists the ways in which to select a report:

   - In the Recently Submitted Reports section, select a report. The report's submission page appears.
   - In the Report Category field, select a report category. The Submit New Report page is refreshed with the available reports. Select a report. The report's submission page appears.

4. On the report's submission page, fill in all the required filter fields, any optional filter fields, and click **Submit.**

   The Report Submitted page appears prior to the report.

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