Transaction Controls Governor Implementation Guide 8.5.1

ORACLE

Transaction Controls Governor Implementation Guide 8.5.1

Primary Authors: Mark Stebelton, Vickie Lee

Contents

Implementation Guide Use

This *Implementation Guide* is meant to provide helpful guidance on the usage of the product. Think of this document as a combination FAQ and helpful “Tips and Tricks.”

It is a supplement to the official product documentation (such as the *User Guide* and *Upgrade Guide*), and is not intended to replace it. If discrepancies exist between this *Implementation Guide* and the official product documentation, the guidance and functional commentary provided by official documents supersede any that may be written here.

Transaction Controls Governor Setup Overview

Oracle Transaction Controls Governor (TCG) is a transaction-authoring and -handling solution that works across heterogeneous platforms to detect issues that exist at the transaction level. It runs in a Governance, Risk and Compliance Controls (GRCC) platform, which it shares with another application called Application Access Controls Governor (AACG).

TCG enables its users to create models, each of which defines risk that transactions may present. Each model specifies semantic business objects (BO), which supply transaction data to the model; business objects correspond to what a business user would expect to see within an ERP environment. TCG then finds "results" — transactions that are suspect because they meet the criteria defined in the model, and so present potential risk to the organization.

Because TCG was designed with rapid implementations in mind, a best-practice library (a set of delivered templates) may be used to deploy models for immediate transaction analysis. The best-practice library for the Oracle E-Business Suite (EBS) provides models that support rapid implementation of transaction analysis around common end-to-end business processes. These include Order-to-Cash, Procure-to-Pay, Financials (or Reconcile-to-Report), and Human Resources (or Hire-to-Retire).

Consider the guidelines in this chapter as you set up TCG for your organization.

Diagnostic Steps

Transaction Controls Governor has been designed to be incredibly scalable by means of hardware configuration. This means TCG performance can often be improved via a hardware change rather than a TCG software change.

Touch points of TCG include several areas that span hardware, software, and network variables. Refer to the *Hardware Requirement* tab of the *Governance, Risk and Compliance Support Matrix* for the recommended and supported hardware configurations.

Any deviation from these recommendations may result in unforeseen issues and would cause additional time and require additional resources during the implementation.

It is highly recommended during implementation planning that sufficient time be allocated for setting up, testing, and troubleshooting environment-specific issues that occur commonly with the many combinations of environments available.

The following is a high-level recommendation for diagnostic steps during environment setup and implementation:

1. Work with Oracle Consulting or an Oracle partner service provider to evaluate your environment and options for a GRCC installation.
    a. Consider creating Development, Test, and Production instances. It is highly recommended that the environments for these instances be similar to one another, as varying environments could cause unexpected issues.
    b. Search for any patches that may need to be applied.

2 Refer to the *Hardware Requirement* tab of the *Governance, Risk and Compliance Support Matrix* document for recommended and supported hardware configurations.

3 Look on My Oracle Support for known environment variable issues.

4 Install GRCC 8.5.0, then upgrade from it to GRCC 8.5.1. (GRCC 8.5.1 cannot be installed directly.) To complete these procedures, see the *GRCC Installation and Upgrade Guide* for version 8.5.0, and the *GRCC Upgrade Guide* for version 8.5.1.

5 Verify that areas of the application are working (see the *TCG User Guide* and *GRCC User Guide* for more information).

   a Create a datasource (a connection to a database used by a business-management application over which TCG is to exercise control). As part of working with a datasource, you may synchronize data — capture recent changes in the data stored on the datasource. However in TCG (unlike AACG), synchronization will not run until at least one model is created and saved.

   b Create a simple transaction model to test (for example, Supplier BO where the creation date is greater than *mm/dd/yyyy*).

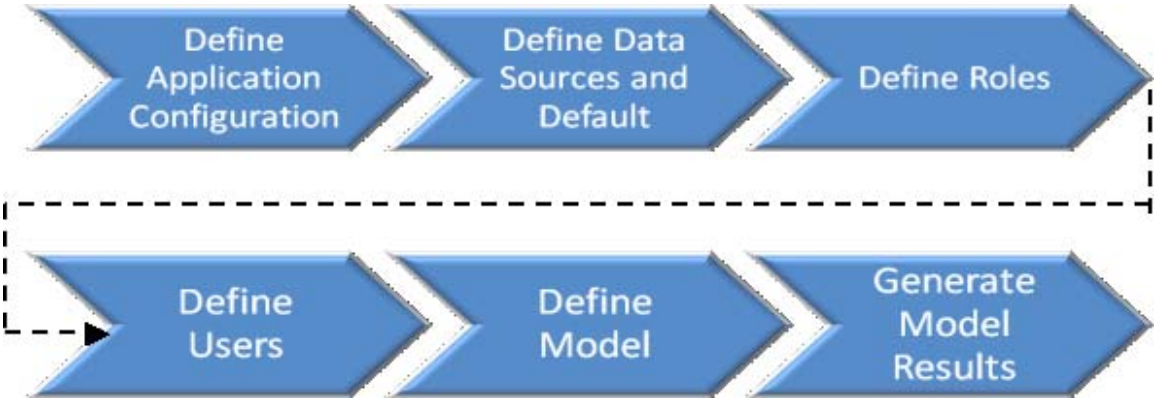
   c Synchronize data from your datasource and run View Results.

   d View the transaction-analysis results.

6 Continue setups as recommended in this *Implementation Guide*.

Transaction Controls Governor Setup Flowchart

Although you can set up Transaction Controls Governor in many ways, we recommend that you follow the order suggested in the following flowchart. Some steps are required, and others are optional; you would perform the optional steps only if you are ready to use the features or business functions implemented by those steps.



Setup Checklist

To set up Transaction Controls Governor, complete the steps in the following checklist. You must complete the steps identified as required; complete each of the optional steps only if you want to use the functionality implemented by that step.

(Each step is described in further detail later in this document. Moreover, the description for each step includes a reference to a section and chapter of the *Transaction Controls*

Governor User Guide or *Governance, Risk and Compliance Controls User Guide*, in which you can find full information about the procedures for completing each step.)

☐ 1 **Required:** Connect your instance of GRCC to its database. Typically, connectivity values are set during installation; you would update the values only if your configuration needs to change.

See “Setting Properties” in the Data Administration chapter of the *GRCC User Guide*.

☐ 2 **Required:** Configure connections to datasources for instances of the business-management applications (such as Oracle EBS) that are to be subject to control by TCG. Optionally, select a datasource to be used as the TCG default.

See “Configuring a Datasource Connection” in the Data Administration chapter of the *GRCC User Guide*.

☐ 3 **Optional:** Define roles and permissions available to TCG users. To create a role, you essentially give it a name and then select a set of properties for it. For TCG, properties do the following:

- Grant update or view rights to the nodes you can select in the Navigation Panel, generally following its hierarchy, and so assign privileges to work in the screens that can be opened from the Navigation Panel.
- Grant access to business objects and datasources used to create models and analyze transaction data.

GRCC comes with two roles already defined — Basic provides access only to a Home panel, and Admin provides access to all (AACG and TCG) features, including all business objects.

Role creation is optional because you may use the existing admin role to grant access to all the features you will need initially. But the datasources you define in your environment must be granted access in the admin role, since datasource definitions are specific to your organization.

See “Creating a User Role” and “Creating a Group Role” in the User and Role Administration chapter of the *GRCC User Guide*.

☐ 4 **Required:** Define TCG users and grant them roles. GRCC comes with one configured user, for which both the user name and password are *admin*. This user is assigned the admin role and so has rights to all GRCC features. By logging on as the admin user, one can create other roles and users. However, it is imperative for proper security that an authoritative user modify the admin user’s password as soon after installation as that task can be completed.

It is recommended that at least one additional role with administrative capabilities be created. This role can be used if the original admin role becomes locked (which would occur if three unsuccessful login attempts are made on it.)

See “Creating User Accounts” in the User and Role Administration chapter of the *GRCC User Guide*.

☐ 5 **Optional:** Load model content. A TCG import utility enables users to upload templates created by Oracle or by other users (and an export utility enables users to make their own models available to others as templates). Best-practice transaction models (delivered templates) for E-Business Suite may be loaded to support rapid implementation of transaction analysis.

See “Exporting Models or Templates” and “Importing Models or Templates” in the Managing Models chapter of the *TCG User Guide*.

☐ 6 **Required:** Define transaction models (or edit those loaded in step 5). A transaction model may select business objects for review and define the conditions for that review. A single model may mix differing business objects. For example, it may include both Oracle Suppliers and Purchase Orders. It may include business objects from more than one business-management system, for example defining equivalent business objects in two separate Oracle E-Business Suite environments.

See the Creating and Editing Models chapter of the *TCG User Guide*.

☐ 7 **Required:** Find the results that your transaction models generate. A View Results program may be run immediately or in the background.

See “Saving the Model and Viewing or Exporting Results” in the Creating and Editing Models chapter of the *TCG User Guide*.

Configuration Planning and Installation

You need to create and set up one or more datasources in the GRCC Data Administration page. The datasources you set up depend on various factors, such as your company's current mandates, risk tolerances, and compliance goals. Considerations include the need to connect to development instances and test instances, and to analyze data across multiple homogeneous instances and/or heterogeneous platforms. Below are detailed instructions for each of the planning and installation steps outlined in "Setup Checklist" (page 2). There are references to other sections of this guide for more detailed instructions.

Use the *Governance, Risk and Compliance Controls User Guide* for help in completing setups.

Defining Your Datasources

Before you begin setting up your datasources, consider your environment and your goals. Do you run transaction analysis against multiple applications? For instance, do you connect to one application for Financials and another for Human Resources? Are these on the same platform? Will you analyze transactions across multiple platforms or even cross-platform? By carefully evaluating your business needs, you can create the necessary datasources so that when models are loaded or created, they will be able to run against the appropriate datasources.

Additionally, once you have your datasources identified, evaluate the amount of historical data you will require as part of your transaction analysis. As part of defining properties (in the GRCC Application Configuration page), it is recommended you set an Analysis Start Date by enabling era-based ETL optimization for TCG. This causes TCG data synchronization to operate only on data that was last updated after the specified date. The date used here can have a direct impact on performance because it affects the amount of data synchronized. Note: Era-based ETL does not apply to AACG.

See "Setting Properties" in the Data Administration chapter of the *GRCC User Guide*.

Defining Your Roles

Before you begin setting up your roles, consider who will use TCG (and GRCC), and for what purposes. Examples of roles may include:

- Auditors – May be able to review generated issues and view results.
- Internal Controls Group – May help review or create models, and view results.
- Business Area/Application Owners – May conduct activities such as creating models and viewing results.
- System Administrator – May set up datasources, application configuration, and notification configurations (only AACG currently uses notifications).

Defining Your Users

Before you begin creating users — during the role creation process — you should have considered who will use TCG (and GRCC), and for what purposes. Also evaluate roles

for TCG in conjunction with access to business objects and datasources. Consider a naming convention for user names and apply one or more roles to each user as appropriate.

ETL Synchronization

To maximize performance and handle cross-platform analysis, TCG employs synchronization — it extracts transaction data from ERP systems and loads that data into its own database. For efficiency purposes, a synchronization operation collects transaction data that apply only to the business objects and datasources used by existing models. (So, as noted earlier, synchronization can be run only after at least one model has been created and saved.)

ETL synchronization may be run on demand, or it may be scheduled to run at regular intervals. Various factors dictate how often either on-demand or scheduled synchronization should occur.

In general, whenever data within TCG is believed to have aged substantially beyond equivalent data in a datasource, ETL synchronization should occur before transaction analysis is run against that datasource. Transaction data changes daily, so a daily ETL synchronization is recommended if transaction analysis is also performed daily.

If, for another example, your company evaluates transactions on a monthly basis, then you may need to run the synchronization process only once a month.

Keep in mind that you can always run an on-demand ETL synchronization if necessary. However, this must be completed before the transaction analysis is performed.

Model (and Template) Planning and Setup

You may decide to load the best-practice transaction models. By doing so, you will have a number of analysis models to be reviewed with appropriate business owners, and compared against the company's goals for governance, risk, and compliance (GRC). It may be necessary to edit models or add new ones.

Identifying Models

At this point, you should have a good idea of the GRC or business-performance goals of the company and know what areas of the business should be focused on. Reviewing each loaded template and its content is necessary to ensure that the goals of the company are being met. There are several ways to approach defining models. A common approach is outlined in the following steps:

1 Identify GRC goals of the company.

2 Load the best-practice model library as templates.

3 Hold workshops with subject-matter experts (SMEs) to review models.

4 Prioritize the models you plan to create or edit.

5 Create and edit models as needed.

6 Generate and view results.

7 Validate and refine models.

8 Convert models to templates for shared, global use.

Using Templates

Models are user-specific — each is visible only to the user who created it. Therefore it's best to save key models as templates, which may be reused by various groups and users within the organization. A template is a permanent record of a model that is viewable by all TCG users — all users have access to templates.

When new models have been created ad hoc by users, and they have been validated (their results have proven they are effective), they should be converted to templates. This involves exporting models to a file as templates, and then importing the templates from the file; these operations are performed in the Manage Models page.

Setting Up Before Creating Models

To create models efficiently, it's important to understand how GRCC works. When a previously unused business object is added to a model, an ETL process runs automatically as part of the model-creation process, collecting data about the new business object. If you intend to use one or more new business objects as you create or edit any number of models, you should initiate the ETL process first. Do this in either of two ways:

- Create a "pseudo model" — one that contains the previously unused BOs, but no business logic. Saving this model initiates the synchronization process for the new BOs. You may choose to do this several days (or at least overnight) prior to building the models you really want to create.

- Build an actual model with all its business logic. Save this model and allow it to run in the background, so that other new models can be created. These models and related BO synchronization are queued in Job History (a page available under the Jobs node of the GRCC Navigation Panel).

Defining Models

There are several key things to consider when defining models:

- Select all the necessary business objects.
- Use the right datasources.
- Attempt to "over-filter" at first.
- Select only the most important attributes. (An attribute is an individual piece of transaction data owned by a business object — for example Supplier Name in the Supplier business object.)

Business Objects

When defining TCG models, select one or more business objects related to the transaction data in your source system that you wish to analyze. If selected objects are logically unrelated, a warning message will indicate this as you attempt to save the model. In many cases, you may find only one or two business objects are necessary to analyze and research suspect results. As an example:

- When using the Payables Standard Invoice BO, include the Supplier BO in order to use the Supplier Name attribute.
- When you use the Payment BO in a model, it already contains the Supplier Name attribute and does not require the additional Supplier BO.

Datasources

In general (excluding any customizations), the current release of TCG uses three datasource "types." These include:

- Oracle R12.1, which is the current delivered integration (adapter and metadata).
- AG Schema for 8.*x* that is used in conjunction with "Authorization" type business objects. (The datasource basically points to itself to leverage access-oriented object information stored in GRCC.)
- XLS Datasource is used in conjunction with spreadsheets you may have leveraged to create your own custom objects. It is not necessary to define this datasource under the Data Administration page.

Model Logic

As you create a TCG model, you define "filters," each of which defines risk and selects transactions that satisfy the definition. At its most basic, a filter consists of an attribute, a "condition" (a mathematical or other operator) and usually a third term. At a high level, there are three filter types: general, function, and pattern.

For the general and function filters:

- Available conditions vary depending upon the attribute selected for the filter.
- The complete list of conditions includes: Less than, Less than or equal to, Greater than, Greater than or equal to, Equals, Does not equal, Between, Is blank, Is not blank, Contains, Does not contain, Is not related to, Similar, and Similar to. Except for the Is blank and Is not blank conditions, additional criteria are required, such as value or an object and its attribute.
- Examples of their usage might include:
  - Use “Greater than” with two attributes like Amount Paid and Invoice Amount (such as Amount Paid Greater than Invoice Amount).
  - Use the “Contains” condition in conjunction with integer and text attributes. As an example, define the filter for a Description attribute that includes value *Miscellaneous*. This value is not case sensitive.
  - Use “Similar” to analyze and group similar data rows across a single attribute, based on a percent similar, which only considers data groups that have more than one similar value when the Matches Only is checked. For example, use “Similar” on Supplier or Customer Name to identify duplicates or names that are similar.

    Use “Similar to” to analyze and group similar data rows across two attributes, in the same or a different BO, based on a percent similar, and use Matches Only to consider groups that have more than one similar value. (In most cases, 85 percent similar or higher should be used to avoid a lot of false positives for the “Similar” and “Similar to” conditions.)
  - Another way to use “Similar To” is to create a link between two objects and attributes that may not currently be related. This is especially true when analyzing custom business objects created from external data.
  - Use one of the three available functions such as Average, Count, and Sum. For example, use “Sum” to add together Invoice Amounts and define a BO/attribute filter to indicate how data is aggregated (such as aggregating invoices by Supplier Name from the Supplier BO).

When more than one filter is added, an AND relationship is the default. For the general and function filters, you can drag a filter along side another to create an OR relationship.

Pattern filters are statistical algorithms applied to identify baselines and anomalies in data. Two delivered patterns are available: Mean and Benford. Only one pattern filter is allowed per model, and can be used in conjunction with other filters. If at first your pattern model does not return any graph/data points/suspect transactions, try lowering threshold numbers.

The “Group Filters” is used to include filters into one logical element.

Result Display

In the Result Display region of the Create Model page, select attributes you want to include as part of your result set. Keep in mind the number of attributes selected can affect the performance of generating the list of suspect transactions.

Defining Sensitive Access Models

The intent of Sensitive Access models is to provide visibility of the transactions that certain users have based on the access that has been granted them through specific access points. For example, an organization may want to track what Supplier or Payment transactions have been impacted by users who have been granted a specified Superuser role.

Sensitive Access models are special cases of TCG models. They automatically relate the access-oriented objects defined in the model with the included transaction objects; Sensitive Access models have certain requirements in the construct of the model to achieve the desired results (an example here may be helpful).

Prerequisite: The GRCC application must be set up as a datasource within the Data Administration page. Also, the Access synchronization must have been performed for the transaction datasource. The Sensitive Access model type utilizes the access model hierarchy graph generated through this process.

1 Add the appropriate Access Point Business Object (BO) to the model canvas. This should be the access point that's assigned directly to the user for the application. For example, in EBS R12, this would be a responsibility.

2 Add the User BO to the model canvas.

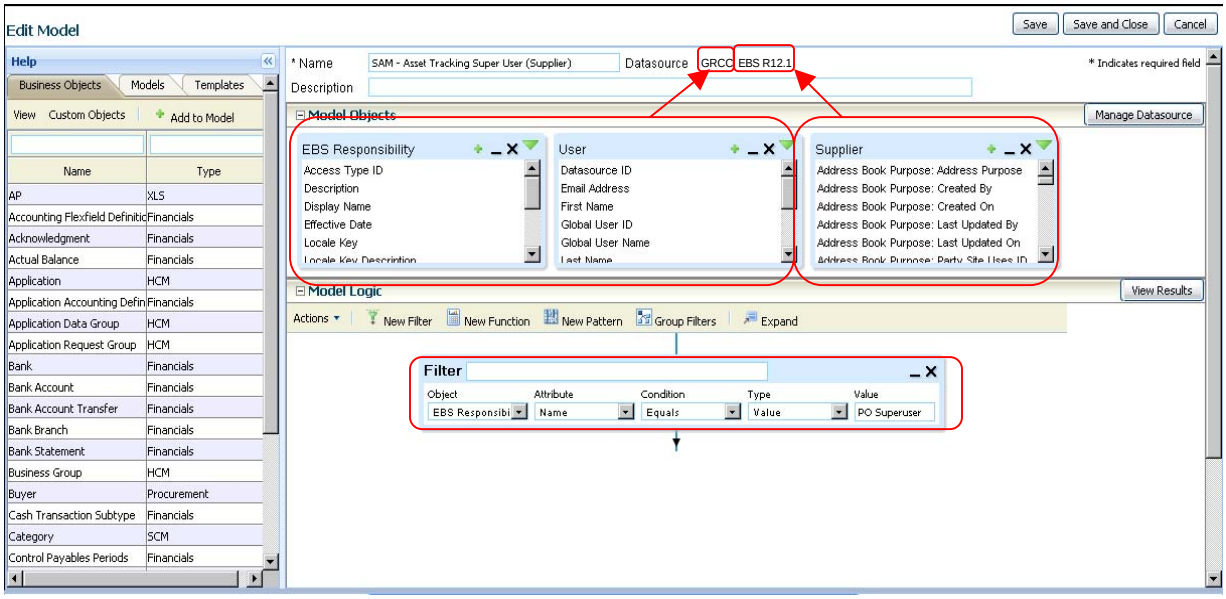
3 Add a transaction BO to the model canvas. For example, if you want to see what users with the PO Superuser responsibility has been creating or editing Suppliers, you'd add the Supplier BO to the model canvas.

4 Manage the BO datasources.

   a Assign the access-related BOs (Access Point and User) to the GRCC datasource.

   b Assign the transaction related BO(s) to the respective target datasource.

5 Create the necessary filters. At least one filter must identify the specific Access Point value(s) to be considered. For example, specifying that you want to base the analysis on the "PO Superuser" responsibility.



Using Data from Other Datasources

At times, you may want to use data from sources other than those registered within GRCC. To a limited extent, you can do this by utilizing the Custom Business Object capabilities within the Create Models page.

In brief, you would create an object in the .xml file format and import it into TCG. Most likely, this would involve exporting data to some initial format, such as Excel, potentially doing some data manipulation, and then saving that to the .xml file format. This is fully documented in the *TCG User Guide*. However, it's important to note that due diligence must be taken in making sure the data type is properly defined in the column header and that all formatting must be removed from the document before converting to .xml.

Remediation

Transaction analysis identifies transactions that meet the criteria of the deployed models. These transactions are only suspect — they may or may not represent actual violations. Additional review and research of the results may result in any of the following conclusions:

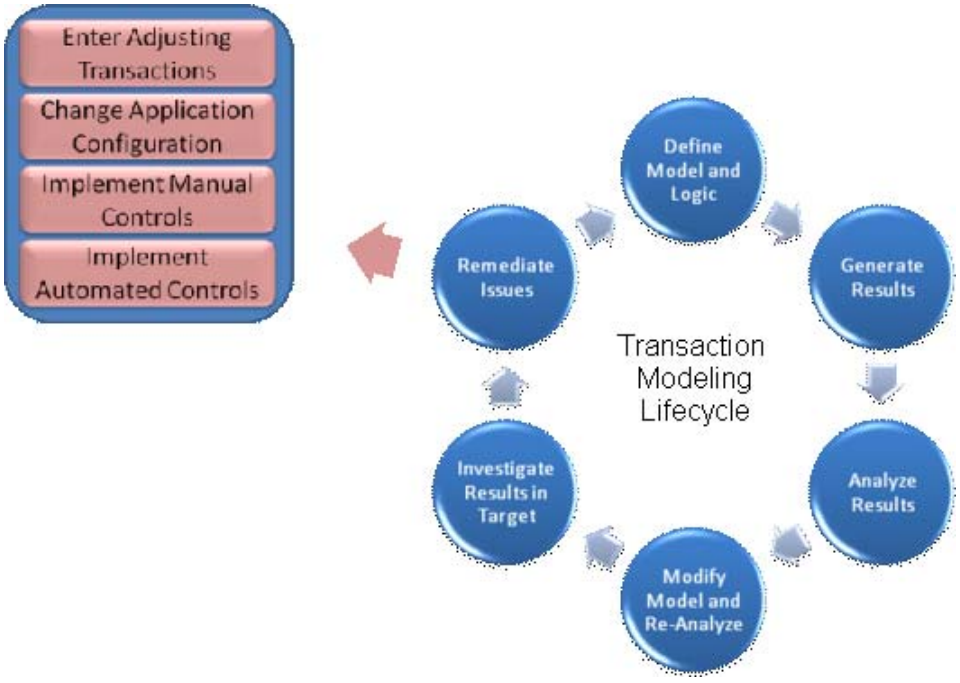
- A transaction involves error or fraud. If so, other upstream controls should be employed to reduce the risk of the occurrence of such transactions in the future.
- A transaction was a known and accepted deviation from general corporate policy, and appropriate approvals and sign-offs were obtained.
- A transaction was acceptable in the context of its occurrence. This may be deemed a false-positive and may warrant the modification of the model logic.

Remediation Considerations

If suspect transactions are deemed to be in violation of the control environment, then remediation steps are required. Involving the appropriate people during remediation is imperative. Remediation with transaction analysis is not the same as with other types of violations, such as SOD. Transactions cannot be removed from the system — they will continue to exist. Remediation comes in the form of identifying appropriate preventive and upstream controls and potentially entering in adjusting transactions and modifying previously submitted reports.

Although there are various ways to approach remediation, we've outlined below a common approach to remediation. It may need to be adjusted based on your company's goals for governance, risk, and compliance.

Remediation Flowchart



Remediation Checklist

The following checklist provides a more detailed list of remediation steps. When you are ready to begin the remediation process, log on to Oracle Transaction Controls Governor and work through these steps to begin cleanup in your systems.

☐ 1 Run transaction analysis for *all* key models (defined and pattern).

Loading all the seeded models and creating new models in critical business processes and activities and running transaction analysis will provide a quick view of your company's overall transaction health and provide a basis for beginning analysis and prioritization.

If there are areas of high risk and yet specific defined models cannot be identified, running some pattern analysis on the related business objects may provide enough information to start.

☐ 2 Focus on areas with the highest risk, priority, and volume.

Depending on your company's GRC goals, determine focus areas to begin analyzing. Focusing on key areas allows you to close up your greatest areas of risk and reduce the possibility that additional transaction violations will occur in the future.

☐ 3 Make sure model is structured properly.

If initial results generate significant volume, the logic of your model may not be fine-grained enough. For example, it's better to focus on higher-dollar-value items first, so perhaps the value of your amount threshold is increased.

☐ 4 Investigate transaction results found.

Just because a transaction record is generated based on your model logic, doesn't necessarily mean there is a problem in your environment. Remember that these are just suspect transactions and therefore further investigation is required.

☐ 5 Use various on-line tools to analyze results.

Model results can be exported to Excel or other spreadsheet applications. These types of tools enable users to perform more complex analysis using functions and pivot tables.

☐ 6 Assign results to business owners.

Various people should review and act on the results that are generated. Generally, different business owners are interested when different models are violated. Since a model relates to specific business objects, assigning the results to these owners should be straightforward.

☐ 7 Re-evaluate.

After a period of time once the necessary upstream controls have been put in place, review the transactions as of that point in time forward. This will provide the necessary data points to determine if additional remediation activities are necessary.

Appendix

This appendix provides additional information on TCG, such as troubleshooting tips, use cases, and lists of delivered business objects and pattern mappings.

Troubleshooting Custom Objects (xml)

When on the Create Model page, you can import your custom object via an .xml file. If your custom object import is failing, consider the following:

- Refer to the *TCG User Guide* under "Adding Custom Objects to the Library" and refer to the formatting conventions as a checklist. For example, check the first row header since it is used to identify each attribute for the object.
- In addition to the formatting rule listed in the *User Guide*, consider removing any font-related formatting as well, such as colored cells and bold text.
- In the event your custom object indicates a successful import, but no attributes appear for the object, double check any Date format. For example, manipulate one cell in the supported formatted (*mm/dd/yyyy*), and use the MS Word Format Painter to apply to the other Date cells.

Use Case 1: Customer Name Maintenance

Your ERP datasource may have rules to validate and verify that supplier or customer naming conventions do not permit duplications or similarities. In TCG, you can also create a model to perform this type of maintenance across one or two attributes you select. This use case includes the Customer BO to demonstrate maintenance across customer names.

Start by creating a new model and assigning a unique name and description.

This model uses only one business object — Customer, in the delivered Oracle R12 datasource. Criteria to be configured in the Manage Datasource window include:

Business Object (Type)	Datasource Name	Datasource Type <display>	Version <display>	Default <display>
Customer	Name of EBS datasource	Oracle	R12	true/false

Define a filter that uses the Similar condition to analyze a single attribute, Name. If you use a higher Percent Similar value, you reduce the number of data rows returned, but require a closer name match. By default the Matches Only field is checked, indicating a match is required to bring in the customer name. Leaving it unchecked would return every customer name, even if it did not have a similar match. The filter criteria include:

No.	Field	Common
Filter 1	Object	Customer
	Attribute	Name
	Condition	Similar
	Percent Similar	90%
	Matches Only	<checked>

For the data result set, select enough attributes to assist in evaluation of the data. In this example of the customer maintenance use case, you may only require attributes like Customer Name, Number, Created On/By, Last Updated On/By, and Type.

Use Case 2: SOD

This segregation of duties (SOD) use case demonstrates how a TCG model can identify privilege conflict. This example presents a model that locates users who have created a supplier and paid that same supplier.

Start by creating a new model and assigning a unique name and description.

Business objects for this model include Supplier and Payment, in the delivered Oracle R12 datasource. Criteria to be configured in the Manage Datasource window include:

Business Object (Type)	Datasource Name	Datasource Type <display>	Version <display>	Default <display>
Payment	Name of EBS datasource	Oracle	R12	true/false
Supplier	Name of EBS datasource	Oracle	R12	true/false

Define two filters not only to identify where a user has both created a supplier and paid that supplier, but also to force the data results to a specific time frame. In this use case, the second filter recommends using a date greater than some recent date defined by the user. The filter criteria include:

No.	Field	Common
Filter 1	Object	Supplier
	Attribute	Created by
	Condition	Equals
	Type	Object
	Object	Payment
	Attribute	Created by
Filter 2	Object	Supplier
	Attribute	Created On
	Condition	Greater than
	Type	Fixed value*
	Value	<recent *mm/dd/yyyy* date>

* You might consider using a relative value for the date instead of fixed, especially if you plan to use and run the model in production on a regular basis, like monthly. Using a relative value for date allows you to define a value in units as it relates to the system date; for example in this case 30 Days would look for suppliers created in the last 30 days.

For the data result set, select enough attributes to assist in evaluation of the data, such as Supplier Name, Created On/By for both BOs, Last Updated On/By for both BOs, Payment Date, Payment Amount and Currency, and a Payment identifier like Check Number.

Use Case 3: Combine SOD with Sensitive Access

This use case will show how Use Case 2 can be combined with sensitive access information (as documented under Model Planning and Setup above).

Start from Manage Model and duplicate the SOD model. Select the Edit action for this newly created model. Rename the model and update the description.

All existing BOs, filters, and attributes apply from previous use case. You'll also add the following BOs to this new model: User and EBS Responsibility. For these two additional objects, define their datasource to point to the current GRCC application under the Manage Datasource page. (The User and EBS Responsibility are Authorization types and the data comes from within the GRCC application you are working in.) The datasource criteria would include:

Business Object (Type)	Datasource Name	Datasource Type <display>	Version <display>	Default <display>
User	GRCC datasource	AG Schema	8.0	false
EBS responsibility	GRCC datasource	AG Schema	8.0	false

Define an additional filter to select a specific responsibility that exists within your organization that might apply. The filter criteria include:

No.	Field	Common
Filter 3	Object	EBS responsibility
	Attribute	Display name
	Condition	Equals
	Type	Value
	Value	<e.g., Financial Manager>

For the data result set, optionally include Display Name from EBS Responsibility and any name attribute from User BO.

Use Case 4: Custom Object with Delivered BO

As described earlier under "Using Data from Other Datasources," a user can import a spreadsheet (.xml file) to use as a custom business object for analysis purposes. These custom objects can be used by themselves, but they can also be used with a delivered BO, where you can establish a relationship between two attributes using the "Similar to" condition. In this use case example, the custom object primarily represents a list of suppliers the company wishes to no longer do business with, and this will be compared to a Remit to Supplier Name attribute from the Payment BO to verify none have recently been paid.

Start by first importing the new custom object on the Create Model page. You might want to first test this custom business object in a model by itself and run data results. This will give you the opportunity to verify all attributes and data rows were imported successfully.

After testing and verifying the new custom object is valid, create a new model using this object and the delivered Payment BO. In this case, use the Manage Datasource window to

associate the delivered Oracle R12 datasource with the Payment BO, but associate XLS Datasource to the custom object. The datasource criteria include:

Business Object (Type)	Datasource Name	Datasource Type <display>	Version <display>	Default <display>
Suppliers—Do Not Contact	XLS datasource	XLS	XLS	false
Payment	Name of EBS datasource	Oracle	R12	true/false

Define a filter using the Similar to condition to establish a relationship between two attributes in the two business objects. The custom object Suppliers—Do Not Contact has a Name attribute that we want to compare/relate to the Remit to Supplier Name in the Payment BO. For Percent Similar, a higher value will reduce the number of data rows returned, but require a closer name match. By default the Matches Only is checked, indicating a match is required to bring in the name. Leaving it unchecked would return every name, even if it did not have a similar to match. The filter criteria includes:

No.	Field	Common
Filter 1	Object	Suppliers—Do Not Contact
	Attribute	Name
	Condition	Similar to
	Object	Payment
	Attribute	Remit to Supplier Name
	Percent Similar	90%
	Matches Only	<checked>

For the data result set, select enough attributes to assist in evaluation of the data, including the custom objects Name and the Payment Remit to Supplier Name in this case.

Examples of Delivered Templates

As a part of your implementation, evaluate some of the delivered models (templates) in your test environment. The .xml file that is used for importing contains model templates that are part of the same/common business area, such as Order to Cash (OTC) and Procure to Pay (PTP).

Even though they are designated as model “templates,” you can import them as models. This provides the ability for you to map your datasource and test as a personal user before providing templates globally via the Templates Library option.

The following is only an example of available model templates:

- Payments with Void Check Date
- Invoices with 'Misc' Description
- Amount Paid Greater than Invoice Amount
- Receivables Invoices - Amount Remaining

List of Delivered Business Objects

The following table provides a list of all 125 business objects by type that are available in the current release. Note: Additional business objects may be added or modified as necessary by Oracle. Since business objects can be uploaded in GRCC they are not dependent on a subsequent release of the product but rather can be "hot-deployed."

No.	Business Object Name	Type
1	Datasource	Authorization
2	EBS Function	Authorization
3	EBS Menu	Authorization
4	EBS Responsibility	Authorization
5	EBS Roles	Authorization
6	Users	Authorization
7	Payment Configurations	Configurations
8	Customer Account Sites	CRM
9	Customer Accounts	CRM
10	Order Line Sets	CRM
11	Order Management Transaction Type	CRM
12	Sales Credit Type	CRM
13	Sales Order	CRM
14	Sales Person	CRM
15	Server Group	CRM
16	Territory	CRM
17	Accounting Flexfield Definition	Financials
18	Acknowledgment	Financials
19	Actual Balance	Financials
20	Application Accounting Definition	Financials
21	Bank	Financials
22	Bank Account	Financials
23	Bank Account Transfer	Financials
24	Bank Branch	Financials
25	Bank Statement	Financials
26	Cash Transaction Subtype	Financials
27	Control Payables Periods	Financials
28	Customer	Financials
29	Disbursement	Financials
30	Expense Location	Financials
31	Expense Policy	Financials
32	Expense Report	Financials
33	Expense Report Template	Financials

(Table continues on the next page.)

No.	Business Object Name	Type
34	External Bank Account	Financials
35	External Payee	Financials
36	General Ledger Accounts	Financials
37	General Ledgers	Financials
38	Internal Payee	Financials
39	Journal Entry	Financials
40	Journal Entry Category Definition	Financials
41	Journal Entry Source Definition	Financials
42	Ledger Steps Details	Financials
43	Legal Entity	Financials
44	Lockbox Transmission File	Financials
45	Payables Aging Period	Financials
46	Payables Credit Memo	Financials
47	Payables Financial Options	Financials
48	Payables Invoice Hold	Financials
49	Payables Invoice Tolerance Set	Financials
50	Payables Payment Term	Financials
51	Payables Prepayment	Financials
52	Payables Procurement Card	Financials
53	Payables Procurement Card Code for Exception Use	Financials
54	Payables Procurement Card Statement	Financials
55	Payables Refund	Financials
56	Payables Standard Invoice	Financials
57	Payables System Option	Financials
58	Payment	Financials
59	Payment Card	Financials
60	Payment Code: Bank Instruction Code	Financials
61	Payment Code: Delivery Channel Code	Financials
62	Payment Code: Payment Reason Code	Financials
63	Payment Method	Financials
64	Receivables Activities	Financials
65	Receivables Application Rule Set	Financials
66	Receivables Autocash Rule Set	Financials
67	Receivables Batch Source	Financials
68	Receivables Credit Memo	Financials
69	Receivables Debit Memo	Financials
70	Receivables Grouping Rules	Financials
71	Receivables Invoice	Financials

(Table continues on the next page.)

No.	Business Object Name	Type
72	Receivables Location	Financials
73	Receivables Lockbox	Financials
74	Receivables Payment Schedule	Financials
75	Receivables Payment Term	Financials
76	Receivables Receipt Batch	Financials
77	Receivables Receipt Class	Financials
78	Receivables Receipt Method	Financials
79	Receivables Receipt Remittance Batch	Financials
80	Receivables Receipt Source	Financials
81	Receivables Standard Receipt	Financials
82	Receivables System Option	Financials
83	Receivables Transaction Type	Financials
84	Subledger Accounting Source	Financials
85	Subledger Application	Financials
86	Subledger Event Model	Financials
87	Subledger Journal Entry	Financials
88	Supplier	Financials
89	Supplier Contacts	Financials
90	Supplier Sites	Financials
91	Withholding Tax Group	Financials
92	Application	HCM
93	Application Data Group	HCM
94	Application Request Group	HCM
95	Business Group	HCM
96	Document Sequence	HCM
97	EBS User	HCM
98	Human Resource Location	HCM
99	Human Resources Organization	HCM
100	Operating Unit	HCM
101	Person	HCM
102	Value Set	HCM
103	Buyer	Procurement
104	Purchase Order	Procurement
105	Purchase Order Change Order	Procurement
106	Purchase Order Line Location	Procurement
107	Purchasing Agreement	Procurement
108	Purchasing Blanket Agreement	Procurement
109	Purchasing Blanket Agreement Change Order	Procurement

(Table continues on the next page.)

No.	Business Object Name	Type
110	Purchasing Hazard Class	Procurement
111	Purchasing Line Type	Procurement
112	Purchasing UN Number	Procurement
113	Receipt	Procurement
114	Requisition	Procurement
115	Supplier Bank Account Change Request	Procurement
116	Supplier Order Modifier Change Request	Procurement
117	Category	SCM
118	Inventory Item	SCM
119	Item Status	SCM
120	Item Supplier	SCM
121	Item Supplier Site	SCM
122	Organization Parameters	SCM
123	Price List	SCM
124	Pricing Agreements	SCM
125	Transaction Reason	SCM

List of Delivered Pattern Mapping

The following are currently supported business object and attribute pattern mappings.

Pattern	Business Object	Attribute	Variance By (Mean Only)
Mean	Payment	Payment Amount	Created On Created By Last Updated By Last Updated On
Mean	Payable Standard Invoice	Invoice Amount Amount Paid	Created On Created By Last Updated By Last Updated On
Mean	Purchase Order	Line: Price Line: Quantity	Created On Created By Last Updated By Last Updated On
Mean	Supplier	n/a	Supplier Name Supplier ID Created On Created By Last Updated By Last Updated On
Benford	Payment	Payment Amount	n/a
Benford	Payable Standard Invoice	Invoice Amount Amount Paid	n/a
Benford	Purchase Order	Line: Price Line: Quantity	n/a