

Version 25



Trapeze

Enterprise Asset Management

State of Good Repair

Reference Guide

Trade Secret | February 2025

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Technical Support

Trapeze provides several ways to connect with the Customer Care team. Please provide detailed information to the representative. If you are reporting an issue by e-mail, include any error messages, screen shots of your problem, and steps to replicate the issue.

Customer Care is available Monday through Friday, 8:00 a.m. to 8:00 p.m., Eastern Standard Time.

Toll-Free Telephone: 1-877-411-8727

E-mail: cc@trapezegroup.com

FTP Site: <https://ftp.trapezegroup.com/>

Web Site: <https://collaborate.trapezegroup.com>

The website provides access to Trapeze Collaborate which offers resources to implement and operate the software, search knowledge, participate in communities, log/track service requests, sign-up for release alerts, view product health recommendations, and download updates or documentation. For secure access to Collaborate, contact Customer Care through the website or by calling the number above.

Product Compatibility

Refer to the latest [Product Compatibility](#) information on Trapeze Collaborate for requirements including operating system information, databases, Crystal reports, network protocol, HTTP servers and browsers that are supported.

State of Good Repair - Reference Guide

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Overview

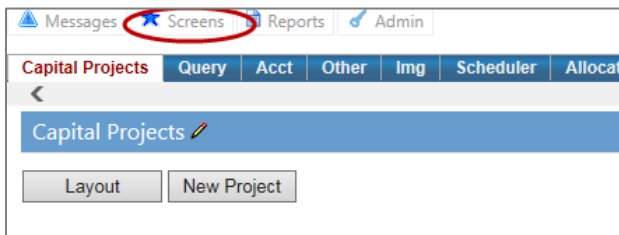
To ensure adequate planning for capital expenditures, transit agencies need to know the current condition of each asset and how that condition affects the asset's remaining life. Several aspects are considered when capturing and tracking condition ratings for all assets.

A condition rating system methodology is used to determine a State of Good Repair (SGR) or Condition Rating for each asset consisting of one or more parts, each with different rules and parameters to affect the final score for an asset.

Score components are user-definable and configurable by type of asset. Some assets may have only a physical inspection rating, especially if they are not regularly maintained (such as IT assets); more complicated assets that have regular maintenance performed will likely have several score components. The score components for an asset are summed together to obtain a final score that totals to 100, or more than 100 for better-than-average assets with a more than expected life remaining, or less than 100 for worse-than-average assets with a less than expected life remaining.

Several areas must be defined and set up for the State of Good Repair to work properly. The sections below provide setup steps and information about the State of Good Repair. You will need to go to the Enterprise Portal to access the necessary screens for setup.

1. Click the **Screens** shortcut button to access Enterprise Portal.



2. Proceed to the following sections for instructions to define data for the State of Good Repair.

Assumptions

- ❗ Do not use the browser's **Back** button in the Web Modules as unanticipated results may occur.
- ❗ Do not open or use the same instance of the Web Modules in multiple browser windows or tabs. This can cause errors or unexpected performance issues.

Condition Ratings

1. Open the Condition Ratings screen.

The Condition Ratings screen displays.

The screenshot shows the 'Condition Ratings' application window. At the top, there's a dark header with 'Condition Ratings' on the left and 'ADMIN MODE', 'CHANGE REQUEST', and 'HELP' on the right. Below the header is a light gray toolbar containing icons for Search, Reload, Sort, and dropdown menus for 'Select Filter' and 'Select Sort'. To the right of these are buttons for 'New' (with a plus icon), 'Copy', 'Delete' (with a trash icon), 'Edit' (with a pencil icon), 'Save' (with a floppy disk icon), and 'Cancel' (with a circle and slash icon). The main area has a left sidebar with two tabs: 'Basic Info' (highlighted in orange) and 'Asset Categories'. The 'Basic Info' tab is active, displaying a form with four input fields: 'Description', 'Ranking', 'Minimum value', and 'Color'. Above these fields, there's a 'Condition ID' field with a dropdown arrow. The 'Asset Categories' tab is also visible in the sidebar.

The **Condition Ratings** screen allows you to define and rank **Condition IDs** for equipment units and service requests and restrict ratings with asset categories. Condition ratings may be assigned to equipment units on the Status tab of any equipment screen (e.g., fleet, rail, stationary, linear, component). You also may assign them to a service request to track trends in condition changes.

2. Click **New** to create a new **Condition ID**.
3. Define the following field:
 - **Condition ID:** Enter (or select from the choice-list) an identifier for a condition. If the **Condition ID** already exists, its description displays to the right of the ID. This is a required field.
4. On the Basic Info tab, complete the following:
 - **Description:** Enter the text description of the condition. The maximum field length is 30 characters. This field is optional but recommended.
 - **Ranking:** Enter a numerical ranking of the condition (as compared with other equipment unit condition ratings). The ranking must be a positive number. This field is optional.

5. On the Asset Categories tab, specifying to which asset categories the Condition Rating applies both limits the number of items that display in the Condition Rating choice-lists and can optionally restrict where those Condition Ratings are used. Set as follows to restrict the use of Condition Rating:
 - **Supports all asset categories:** Check this box to allow equipment in all asset categories to see this Condition Rating on a drop-down list.
 - **Supported asset categories:** Alternately, create a list of specific allowed asset categories by selecting the Asset category IDs from the drop-down list. Check the **Delete** box to delete an entire row from this list upon clicking the **Save** button.
 -  Asset Categories are defined on the **Setup > Equipment Units > Asset Categories** screen.
 - **Enforce asset category restrictions for this condition:** Check this box to limit the Condition Rating to only be used on an equipment unit that has an asset category supported by the Condition Rating.
 -  Note: If **Enforce asset category restrictions for the condition** is checked AND no **Supported asset categories** exist in the list AND **Supports all asset categories** is not checked, then the Condition Rating is not allowed to be used.
6. After entering the Condition Ratings information, click **Save** to save the Condition Rating.

Capital Categories

1. Open the Capital Categories screen.

The Capital Categories screen displays.

The screenshot shows the 'Capital Categories' application interface. At the top, there is a header bar with 'Capital Categories' and navigation links: Search, Reload, Sort, Filter, Sort, New, Copy, Delete, Edit, Save, Cancel. Below the header is a table with columns: Row #, Capital category ID, Description, and Default project type. The first row shows '1', 'PASS_CAR', 'PASSENGER CAR', and an empty field.

Below the table, there are two tabs: 'Basic Info' and 'Asset Categories'. The 'Basic Info' tab is active, showing fields for 'Capital category ID' (PASS_CAR), 'Description' (PASSENGER CAR), 'Default project type for refurbishment', 'Default project type for replacement', 'Project duration (months)' (0), and a checkbox for 'Score affects effective useful life' (checked). There is also an 'Active' checkbox (checked).

The 'Asset Categories' tab is also visible, showing a table of supported asset categories:

Row #	Delete	Asset category ID	Description
1	☐	CAR	MOTORPOOL CARS
2	☐	VAN	TRANSPORT VANS
3	☐	TRUCK	CONSTRUCTION CREW VEHICLE

*Capital categories are used for capital scoring and prioritization. The **Capital Categories** screen enables you to define and restrict capital categories based on the organization's needs.*

2. Click **New** to create a new Capital Category.
3. Define the following field:
 - **Capital category ID:** Enter a unique identifier for a capital category. This is a required field. The maximum field length is 20 characters. When the **Capital category ID** already exists, its description displays to the right of the ID.
4. On the Basic Info tab, define capital categories by completing the following fields:
 - **Description:** Enter the text description of the capital category you are defining. The maximum field length is 60 characters. This field is optional but recommended.
 - **Default project type for refurbishment:** For each capital category you can optionally specify a default project type to be used for refurbishment projects.
 - **Default project type for replacement:** For each capital category you can optionally specify a default project type to be used for replacement project.

- **Score affects effective useful life:** Check this box if the score affects the equipment unit's useful life.
- **Active:** Check this box to activate the capital category. Defaults to blank (not active).
- **Scenario ID:** This refers to the deterioration scenario and must be entered in order to display a deterioration chart



Prediction scenarios are a separate optional data load process. Use the DataLoader to load the following files which can be found in the dbobjects\DataLoader folder:

- AgeBasedPredictionScenarios.xml
- SurvivalAgePredictionScenarios.xml



Refer to the *Asset Performance Assessment Administrator and User Guide* for additional information about deterioration scenarios.

5. On the Asset Categories tab, specifying to which asset categories the Capital Category applies both limits the number of items that display in the Capital Category choice-lists and can optionally restrict where those Capital Categories are used. Set as follows to restrict the use of Capital Categories:

- **Supports all asset categories:** Check this box to allow equipment in all asset categories to see this Capital Category on a drop-down list.
- **Supported asset categories:** Alternately, create a list of specific allowed asset categories by selecting the Asset category IDs from the drop-down list. Check the **Delete** box to delete an entire row from this list when you click the **Save** button.



Note: Asset Categories are defined on the **Setup > Equipment Units > Asset Categories** screen.

- **Enforce asset category restrictions for the category:** Check this box to limit the Capital Category to only be used on an equipment unit that has an asset category supported by the Capital Category.



Note: If **Enforce asset category restrictions for the category** is checked AND no **Supported asset categories** exist in the list AND **Supports all asset categories** is not checked, then the Capital Categories are not allowed to be used.

6. After entering the Capital Categories information, click **Save** to save the Capital Category.

Capital Priorities

1. Open the Capital Priorities screen.

The Capital Priorities screen displays.

*The **Capital Priorities** screen enables you to define, rank, and restrict capital priorities by asset category based on the organization's needs.*

2. Click **New** to create a new Capital Priority.
3. Define the following field:
 - **Capital priority ID:** Enter a unique identifier for a capital priority. This is a required field. The maximum field length is 20 characters. When the **Capital priority ID** already exists, its description displays to the right of the ID.
4. Continue defining capital priorities on the Basic Info tab by completing the following fields:
 - **Description:** Enter the text description of the capital priority you are defining. The maximum field length is 60 characters. This field is optional but recommended.
 - **Priority rank:** Optionally enter the level of importance assigned to this capital priority.
 - **Active:** Check this box to activate the capital priority. Defaults to blank (not active).

5. On the Asset Categories tab, specifying to which asset categories the Capital Priority applies both limits the number of items that display in the Capital Priority choice-lists and can optionally restrict where those Capital Priorities are used. Set as follows to restrict the use of Capital Priority:
 - **Supports all asset categories:** Check this box to allow equipment in all asset categories to see this Capital Priority on a drop-down list.
 - **Supported asset categories:** Alternately, create a list of specific allowed asset categories by selecting the Asset Category IDs from the drop-down list. Check the **Delete** box to delete an entire row from this list when you click **Save**.
 Note: Asset Categories are defined on the Setup > Equipment Units > Asset Categories screen
 - **Enforce asset category restrictions for the priority:** Check this box to limit the Capital Priority to only be used on an equipment unit that has an asset category supported by the Capital Priority.
 Note: If **Enforce asset category restrictions for the priority** is checked AND no **Supported asset categories** exist in the list AND **Supports all asset categories** is not checked, then the Capital Priorities are not allowed to be used.
6. After entering the Capital Priority information, click **Save** to save the Capital Priority.

Capital Score Elements

1. Open the Capital Score Elements screen.

The Capital Score Elements screen displays.

- ✓ The **Capital Score Elements** screen is where you define score elements as XML queries based on the organization's needs. A capital score element is used with a Capital Scoring Rule to make up one element of the total rating for an equipment unit
 - Several predefined sample capital score elements are available as default, and you can use this screen to review the samples and create new ones. To load the out-of-the-box capital score elements, run the script **LCapelmMain.sql** against the database. For MSSQL, the script is located in the **dbobjects\newId** folder. For Oracle, the script is located in the **dbobjects\Load** folder.
- 2. Click **Row** to create a new Capital Score Element.
- 3. Define capital score elements by completing the following field:
 - **Capital score element ID:** Enter an identifier for a capital score element. This is a required field. The maximum field length is 20 characters. When the **Capital score element ID** already exists, its description displays to the right of the ID.
- 4. On the Basic Info tab, continue defining the capital score element by completing the following fields:
 - **Description:** Enter the text description of the capital score element you are defining. The maximum field length is 60 characters.

- **Data Criteria:** Data Criteria is an XML language used to generate SQL queries for State of Good Repair scoring purposes. Please contact your representative for more information about creating custom scoring SQL queries for State of Good Repair scoring
5. On the More Info tab, continue defining the capital score element by completing the following fields:
- **Result type:** Choose TEXT or NUMERIC for expected output
 - **Default factor:** User enterable reference for later definition
 - **Result description:** User enterable description of results
 - **Evaluate data criteria:** Check this box to re-evaluate the entered XML and generate a new SQL query. Useful during XML development process.
 - SQL query that results from the entered XML statement
6. After entering the Capital Score Elements information, click **Save** to save the Capital Score Element.

Capital Score Asset Groupings

1. Open the Capital Score Asset Groupings screen.

The Capital Score Asset Groupings screen displays.

*The **Capital Score Asset Groupings** screen enables you to define asset groups for which rules can be defined and capital scores to be calculated.*

2. Click **New** to create a new Capital Score Asset Grouping.
3. Define capital asset groupings on the **Capital Score Asset Groupings** screen by completing the following field:
 - **Capital asset grouping ID:** Enter an identifier for a capital asset group. This is a required field. The maximum field length is 20 characters. When the **Capital asset grouping ID** already exists, its description displays to the right of the ID.
4. On the Asset Criteria tab, complete the following fields:
 - **Description:** Enter the text description of the capital asset group you are defining. The maximum field length is 60 characters. This field is optional but recommended.
 - **Active:** Check this box to activate the capital asset group. Defaults to blank (not active).
 -  The group must be set to **Active** for it to be included in the capital score calculations initiated on the End of Period screen.
 - **Asset criteria to restrict the assets:** Create a capital score asset group by selecting one or more criteria items from the drop-down list and assigning a

criterion value to each accordingly. The maximum field length for a criterion value is 30 characters.

On each line, select a criterion and enter a value to define an asset group. For example, for a criterion of Company ID, enter a previously defined value matching certain assets such as COMPANY ONE. This will cause the group to be made up of all assets with a Company ID of COMPANY ONE.

If additional criteria are needed to narrow the group, enter that criterion and value on the next line. For example, a criterion of Department ID and a value of 1000 on the second line will cause the group to be made up of only assets in COMPANY ONE (from line 1 above) that are also in Department 1000.

5. After entering the Capital Score Asset Grouping information, click **Save** to save the Capital Score Asset Group.

Capital Scoring Rules

A Capital Scoring Rule is a unique combination of a group and an element (i.e., a Capital Asset Grouping ID and a Capital Score Element ID). Capital scoring rules weigh the elements against each other for a given group and translate the data returned from the element (query) to a numeric score. The result is the sum of the weighted scores for each asset in the group.

1. Open the Capital Scoring Rules screen.

The Capital Scoring Rules screen displays.

The screenshot shows the 'Capital Scoring Rules' interface. At the top, there's a header with the title and 'ADMIN MODE' and 'CHANGE REQUIREMENTS' links. Below the header is a toolbar with icons for Search, Reload, Sort, and dropdown menus for Select Filter and Select Sort. To the right of these are buttons for New, Copy, Delete, Edit, and Save. The main area is split into a left sidebar with a 'Basic Info' tab and a right panel. The right panel contains two dropdown menus for 'Capital asset grouping ID' and 'Capital score element ID'. Below these is a 'Basic Info' section with a 'Result type' dropdown, a 'Factor' input field, and a 'Value ranges' section. The 'Value ranges' section includes a table with columns: Row #, Delete, Low numeric result, High numeric result, and Result text. There is also a text box for 'Result type' with a tooltip that says 'The resulting value of a NUMERIC result type is the score effect if no value ranges are defined'.

2. Click **New** to create a new Capital Scoring Rule.
 3. Complete the following fields:
 - **Capital asset grouping ID:** Select a capital asset grouping ID from the choice-list box. This is a required field. The maximum field length is 20 characters. When the Capital asset grouping ID is selected, its description displays to the right of the Capital asset grouping ID.
 - **Capital score element ID:** Select a capital score element ID from the choice-list box. This is a required field. The maximum field length is 20 characters. When the Capital score element ID is selected, its description displays to the right of the Capital score element ID.
-  A specific combination of a Capital score group and Capital score element defines a single rule and may only be used once. A given group may be used with different elements to create multiple rules for that group and an element

may be used with multiple different groups to make similar rules across differing groups.

4. Further define capital scoring rules on the Basic Info tab by completing the following fields:

- **Result type:** Select **Numeric** or **Text** from the choice-list. This field is set to specify whether the expected output of the query in the element of the rule will be text or numeric, e.g., 100 (numeric) or PASS (text).
- **Factor:** Enter the relative weight of this capital scoring rule when added to the output from the other rules with different elements being scored for the group.
- **Value Ranges:** If the expected output of the rule query (Element) is text, then add a line for each possible text output and enter a corresponding Score Effect value for that text output. For example, if the query might return possible values of HIGH, MEDIUM or LOW then create each on a line with a numeric score to be associated with the value such as HIGH would be worth a score of 30, MEDIUM worth a score of 20 and LOW worth a score of 10.

If the expected output of the rule query (Element) is numeric, then add a line to identify what score is to be assigned to each range of possible numeric output. For example, if the query might return possible values of 1 through 10 you might specify a range of 1-3 would be worth a score of 10 and a range of 4-7 would be worth 20 and then 8-10 worth a score of 30.

5. After entering the Capital Scoring Rules information, click **Save** to save the Capital Scoring Rules.

Run Capital Scores Calculations

When performing capital score calculations from the **End of Period** screen, the system uses your defined elements, groups, and rules to ultimately generate Equipment Condition Rating records as discussed in the next section.

1. Open the End of Period screen.

The End of Period screen displays.

2. In the top-left corner, click **Reload**.

*The **Date last run** and **Month/year last processed** fields are populated.*

End of Period

☐ End of day
☐ Equipment usage for month Year
☐ End of month for month Year
☐ End of quarter
☐ Purge obsolete database entries
☐ End of year
☐ Economic order quantity calculations
☐ Capital score calculations for month Year

Date last run	Month/year last processed
01/01/1900 00:00	
01/01/1900 00:00	0 / 0
06/19/2014 10:46	2 / 2014
07/01/2011 18:24	
09/01/2011 17:18	
02/05/2016 12:13	
10/16/2006 12:07	
11/17/2016 15:36	

3. To update information, click **Edit**.

End of Period ADMIN MODE CHANGE REQUEST

Select Filter

Select Sort

System date

End of Period

End of Period

4. Check the **Capital score calculations for month** box.

 **Note:** **Month** and **Year** are optional fields, and may apply to scoring rules to specify a month and year for easier output record identification.

End of Period

☐ End of day
☐ Equipment usage for month Year
☐ End of month for month Year
☐ End of quarter
☐ Purge obsolete database entries
☐ End of year
☐ Economic order quantity calculations
☐ Capital score calculations for month Year

Date last run	Month/year last processed
01/01/1900 00:00	
01/01/1900 00:00	0 / 0
06/19/2014 10:46	2 / 2014
07/01/2011 18:24	
09/01/2011 17:18	
02/05/2016 12:13	
10/16/2006 12:07	
11/17/2016 15:36	

5. Click **Save**.

The capital scores or condition ratings are calculated and may be reviewed as outlined in the next section.

Equipment Condition Ratings

1. Open the Equipment Condition Ratings screen.

The Equipment Condition Ratings screen displays.

*The **Equipment Condition Ratings** screen allows you to view, copy, insert, and delete Equipment Condition records. These records include those generated by the end of period capital score calculation.*

2. Click **Search** to filter and retrieve the condition rating for the desired assets.

The filter page displays.

3. The filter options allow you to search records in a variety of ways. Retrieve desired condition ratings by filtering on one or more of the following: Equipment ID, Condition

rating ID, Source, Type (Automatic, Direct Entry, or Condition Score), Score basis month, and Score basis year.

4. Click **Apply Filter**.

The condition ratings display.

- **Condition rating ID:** For manually entered records, any value on the drop-down list may be used as desired. For automatically generated records, this value will be completed if the score rules provide for it to be included.
- **Condition score:** For manually entered records, any value may be entered as desired. For automatically generated records, this is the numeric score output as specified in the rules that apply to the specific equipment unit. It may contain a positive or negative number in the format 10.2 (10 digits and two decimal places).
- **Date and Time:** Date and time (in MM/DD/YYYY HH:MM format) is a required field. For automatically generated records this is the date and time the end of period capital score calculation was performed. Must be earlier than today's date/time when manually entered.
- **Source:** The optional source of the record. For automatically generated records this value is set to CALCULATED SCORE. The only entered values allowed are those on the drop-down list as follows:

EQUIPMENT MASTER
SERVICE REQUEST
TEST RESULT
CALCULATED SCORE
CALCULATED COMPONENT
- **Type:** The optional type of the record. For automatically generated records this value is set to CONDITION SCORE. The only entered values allowed are those on the drop-down list as follows:

AUTOMATIC
DIRECT ENTRY
CONDITION SCORE
- **Score Basis: Month and Year** - These fields are optional. If manually entered, the Month must be a value between 1 and 12 and Year must be between 1753 and 2999. For automatically generated records this value is set to the optional values entered on the **End of Period** screen.
- **Comment:** An optional text field in which you can enter comments manually. Maximum field length is 255 alphanumeric characters.