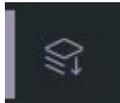


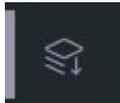
# Engineering Dashboard - Transaction Investigation

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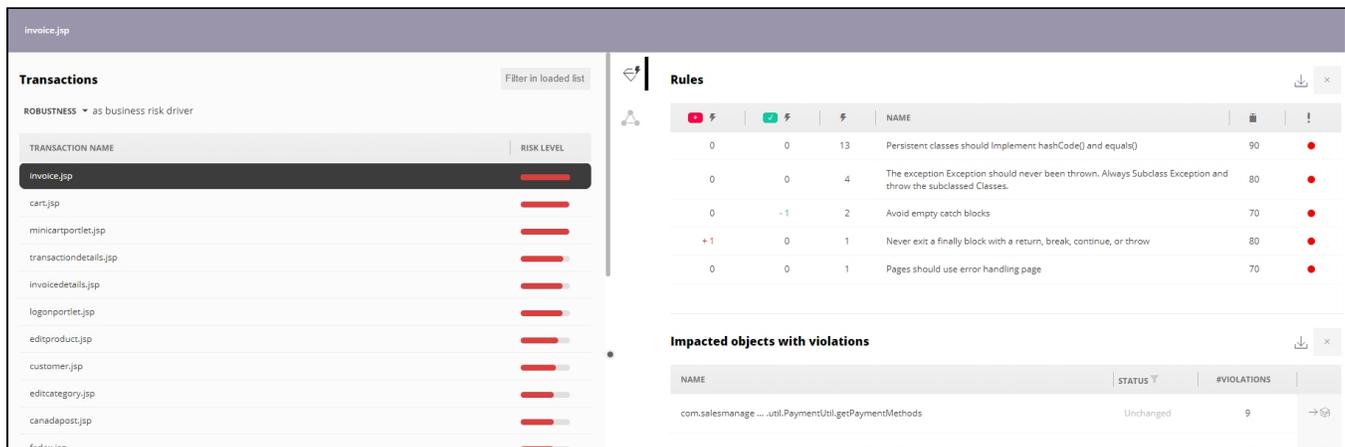
 **Summary:** This page provides instructions for using the **Transaction Investigation view** in the **Engineering Dashboard**.

## Introduction



Accessible from the sidebar menu  or by clicking an object in the [Top Riskiest Transactions](#) tile, this view enables investigation of the transactions in the Application. Data is presented in a series of **tables** on the left and right hand side of the page enabling you to drill down from a **Transaction** with a high level of risk (i.e. objects) right down to the **Violations themselves**.

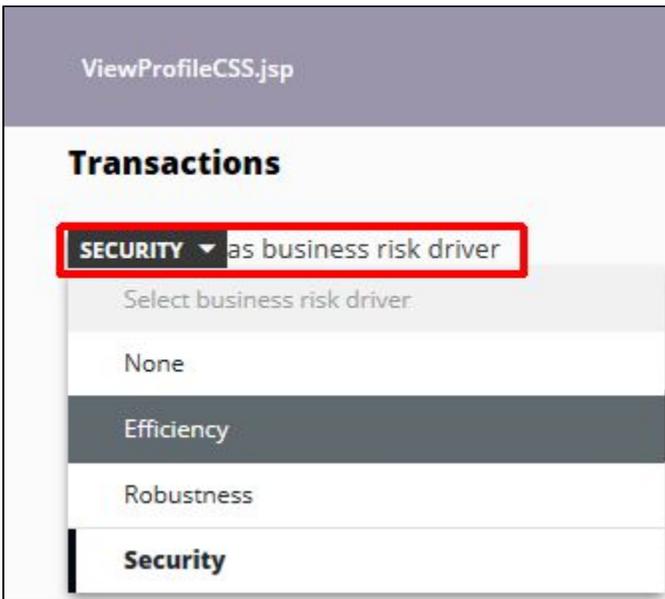
*Click to enlarge*



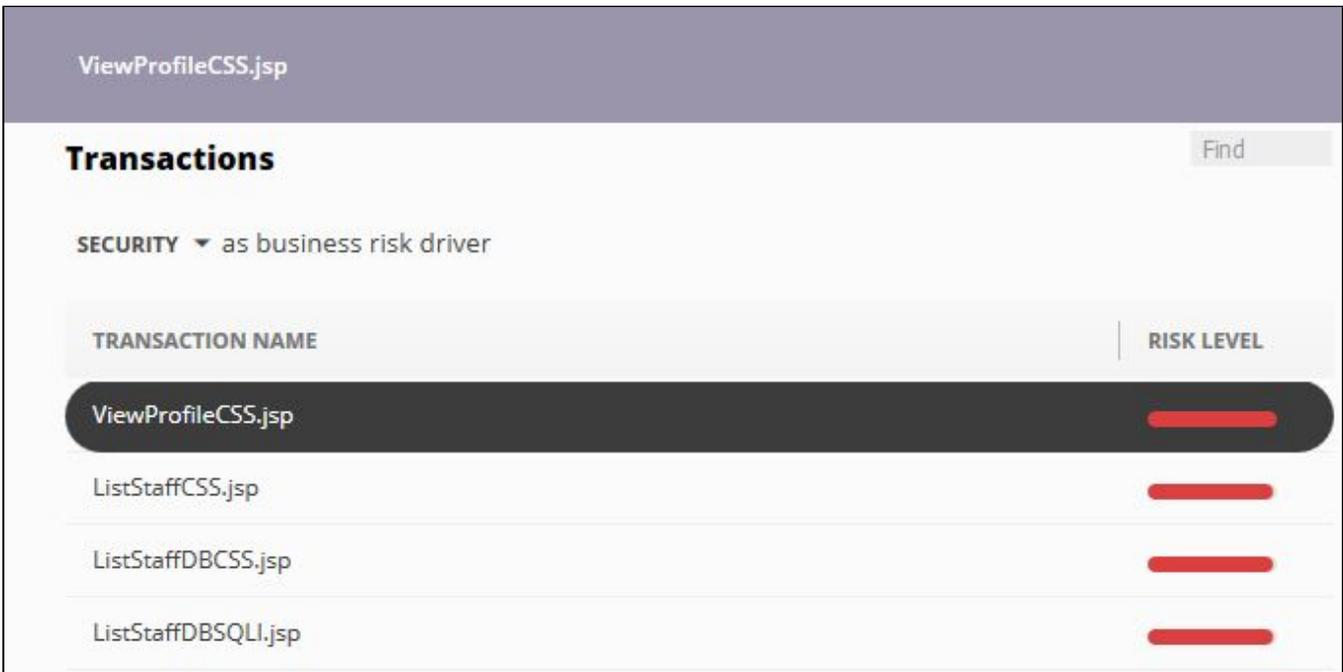
TRANSACTION NAME	RISK LEVEL
Invoice.jsp	High
cart.jsp	Medium
minicartportlet.jsp	Medium
transactiondetails.jsp	Medium
invoicedetails.jsp	Medium
loginportlet.jsp	Medium
editproduct.jsp	Medium
customer.jsp	Medium
editcategory.jsp	Medium
canadapost.jsp	Medium
fedex.jsp	Medium

NAME	STATUS	#VIOLATIONS
com.salesmanage ... .util.PaymentUtil.getPaymentMethods	Unchanged	9

The view functions in a very similar way to the [Risk Investigation view](#). The default **Health Measure** used for this view is **Robustness**, but you can change this using the drop down list box in the top left corner:



## Transaction browser



The browser lists **50 Transactions per "page"** sorted by the **risk level** (i.e. the **Transaction Risk Index (TRI)** value: TRI is an indicator of the riskiest transactions of the application. The TRI number reflects the cumulative risk of the transaction based on the risk in the individual objects contributing to the transaction. The TRI is calculated as a function of the rules violated, their weight/criticality, and the frequency of the violation across all objects in the path of the transaction. TRI is a powerful metric to identify, prioritize and ultimately remediate riskiest transactions and their objects.)

Selecting a transaction will display information in the right hand panel about rules violated by the rules violated by the selected transaction with regard to:

## Rules

**Transactions** Filter in loaded list 

EFFICIENCY ▾ as business risk driver

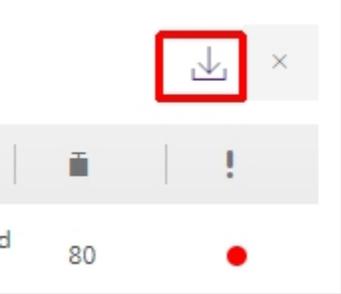
TRANSACTION NAME	RISK LEVEL
[C:\CAST\8315\DEPLOY\MEUDON\JEE\Connect.jsp]	
[C:\CAST\8315\DEPLOY\MEUDON\JEE\ListAuthors.jsp]	
[C:\CAST\8315\DEPLOY\MEUDON\JEE\ErrorPage.jsp]	
[C:\CAST\8315\DEPLOY\MEUDON\JEE\ListTitles.jsp]	
[C:\CAST\8315\DEPLOY\MEUDON\JEE\NewSales.jsp]	

**Rules** 

 	 		NAME		
+1	0	1	Use of style sheets (JEE)	40	
+1	0	1	Serialize session objects	40	
+1	0	1	Avoid using DriverManager	90	
+1	0	1	Close database resources ASAP	80	

Column	Explanation
	Displays the number of <b>Violations</b> or <b>Critical Violations</b> added to the <b>current snapshot</b> for the currently selected item since the last snapshot.
	Displays the number of <b>Violations</b> or <b>Critical Violations</b> removed from the <b>current snapshot</b> for the currently selected item since the last snapshot.
<b>#Critical / #Violations</b>	Displays the number of <b>Violations</b> or <b>Critical Violations</b> for the currently selected item. This column is also used as the default sorting criteria when items are first displayed.
<b>Name</b>	Name of the Rule/Distribution/Measure.
<b>Weight</b>	Displays the weight of the Rule/Distribution/Measure in its parent Technical Criterion. The higher the value, the more weight the item carries.
<b>Critical Rule</b>	A red dot in this column indicates that the Rule has been set as <b>critical</b> in the Assessment Model.

 Click this icon to [export the list of violations to Excel](#):



## Violations and Rule Documentation

Clicking a Rule in the right hand section will move the right hand panel over to the left hand side, and display a new panel containing:

- a **list of objects** that are violating the selected Rule, listed in alphabetical order
- a section containing **documentation** about the selected Rule

**Rules**

+	0	1	NAME	
+1	0	1	Use of style sheets (JEE)	40
+1	0	1	Serialize session objects	40
+1	0	1	Avoid using DriverManager	90
+1	0	1	Close database resources ASAP	80

**Violations**

OBJECT NAME	LOCATION	RISK	STA
[C:\CAST\8315\DEPLOY\MEUDON\JEE\NewSales.jsp]		Added	

**Rule documentation**

By using a style sheet, you ensure that the display is the same across the website. It allows to centralize maintenance of pages look and feel.

**Information**

- Please see [Violation table](#) from the [Risk Investigation view](#) for an explanation of the column headings **Plan**, **Object Name Location**, **Risk** and **Status**.
- Note that when there are many violations to display, a **"Show More"** button will be available. By default, only 10 violations are displayed to improve performance. You can choose to display more using the various options (+10, +100 etc.). By default an upper maximum of 5000 violations is set when the "All" option is clicked. You can change the upper maximum if required (see the [violationsCount](#) option in [Engineering Dashboard json configuration options](#)).

## Parameter Details

Click **Rule**, it displays parameter details section. This section displays the parameter name, technology, and value for the selected rule.

**Parameter details**

NAME	TECHNOLOGY	VALUE
Maximum Line Count	ABAP	100
Maximum Line Count	Cobol	1000

Parameter details will be displayed for the current snapshot as well as for the previous snapshot if the rule is "parameterized". The parameter detail section also displays the data for a selected rule when no violations. The parameter section displays a message "No parameter details available" if the selected rule does not have parameter details.

**Parameter details**

*No parameter details available*

## Source code

Selecting an object in the Violations and Rule Documentation section will move the right hand panel over to the left hand side, and display a new panel containing the source code of the selected object:

*Click to enlarge*

**Violations**

OBJECT NAME LOCATION	RISK	STA
[C:\CAST\8315\DEPLOY\MEUDON\JEE\NewSales.jsp]	Added	

**Rule documentation**

By using a style sheet, you ensure that the display is the same across the website. It allows to centralize maintenance of pages look and feel.

**Source code**

No violation bookmarks or details are available on this violation, object source code will be displayed instead when applicable. Code added and violation added since the last snapshot analysis

Use of style sheets (EE)  
Rule ID: 2220

```
C:\cast\8315\deploy\meudon\jee\newsales.jsp
1 <%@ page language="Java"
2 import="com.castsoftware.dbconnection.*"
3 errorPage="ErrorPage.jsp"
4 %>
5
6 <html>
7 <head>
8 <title>CAST Demonstration Application</title>
9 <script language="JavaScript" src="Scripts/date.js"> </script>
10 <script language="JavaScript" src="Scripts/tests.js"> </script>
11 </head>
```

**Violation details**

No violation details for this rule

**Why is that an issue?**

By using a style sheet, you ensure that the display is the same across the website. It allows to centralize maintenance of pages look and feel.

Note that analyzed source code from the following technologies is not visible in the Engineering Dashboard:

- PowerBuilder (using CAST AIP 8.3.12)
- VisualBasic (using CAST AIP 8.3.12)
- BusinessObjects

Please also note that in the current release of CAST AIP, the display of source code is limited in functionality:

- The source code is in fact a display of the entire file that contains the selected object, therefore display performance can be affected if the file is very large
- Bookmarks in the source code showing the location of the violation are not displayed, instead the entire object within the parent source code file is highlighted
- The source code does not currently show all violations for Rules that reference User Input Security elements, such as:
  - OWASP security rules
  - The Rule "Avoid direct or indirect remote calls inside a loop"
  - Any Rule referencing copy/paste rules

## Impacted objects with violations

This section lists all objects that are involved in the selected transaction and which also have rule violations:

**Transactions**

Filter in loaded list

ROBUSTNESS ▾ as business risk driver

TRANSACTION NAME	RISK LEVEL
ERC50NPA	Added
ERCO0DPA	
KCLJ	
ERCO0SP2	
CCTGU10	

**Impacted objects with violations**

NAME	STATUS	#VIOLATIONS
[c:\jenkins_sla ... ystems\Presales\PROG-BATCH].CSVAB46	Unchanged	21
[c:\jenkins_sla ... ystems\Presales\PROG-BATCH].CSVAB44	Unchanged	19
[c:\jenkins_sla ... ystems\Presales\PROG-BATCH].CSVAB40	Updated	18
[c:\jenkins_sla ... ystems\Presales\PROG-BATCH].CSVAB48	Updated	18

Column	Explanation
Name	Name of the object involved in the selected transaction.

<b>Status</b>	<p>Status of the object in the current snapshot (unchanged, updated, added). You can filter on this column using the drop down:</p> <div data-bbox="261 184 1219 436" style="border: 1px solid black; padding: 5px;"> <p><b>Impacted objects with violations</b> <span style="float: right;">↓ ×</span></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">NAME</th> <th style="width: 15%;">STATUS ▼</th> <th style="width: 15%;">#VIOLATIONS</th> <th style="width: 10%;"></th> </tr> </thead> <tbody> <tr> <td>com.salesmanage ... .util.PaymentUtil.getPaymentMethods</td> <td style="border: 1px solid black; padding: 2px;">           Select a filter  <b>All statuses</b>            Added            Updated            Unchanged         </td> <td style="text-align: center;">9</td> <td style="text-align: center;">→ 📦</td> </tr> <tr> <td>com.salesmanage ... .store.LandingAction.displayLanding</td> <td></td> <td style="text-align: center;">8</td> <td style="text-align: center;">→ 📦</td> </tr> <tr> <td>com.salesmanage ... reShoppingCartAction.checkoutRemote</td> <td></td> <td style="text-align: center;">8</td> <td style="text-align: center;">→ 📦</td> </tr> </tbody> </table> </div>	NAME	STATUS ▼	#VIOLATIONS		com.salesmanage ... .util.PaymentUtil.getPaymentMethods	Select a filter <b>All statuses</b> Added Updated Unchanged	9	→ 📦	com.salesmanage ... .store.LandingAction.displayLanding		8	→ 📦	com.salesmanage ... reShoppingCartAction.checkoutRemote		8	→ 📦
NAME	STATUS ▼	#VIOLATIONS															
com.salesmanage ... .util.PaymentUtil.getPaymentMethods	Select a filter <b>All statuses</b> Added Updated Unchanged	9	→ 📦														
com.salesmanage ... .store.LandingAction.displayLanding		8	→ 📦														
com.salesmanage ... reShoppingCartAction.checkoutRemote		8	→ 📦														
<b>#Critical / #Violations</b>	<p>Displays the number of <b>Violations</b> or <b>Critical Violations</b> for the object involved in the currently selected transaction. This column is also used as sorting criteria when items are first displayed.</p>																
	<p>Drill down to the object in the <a href="#">Application Investigation view</a>.</p>																

**i** By selecting the **filter as a critical or non-critical filter**, the user can see the violation count of an object based on critical or non-critical violations.

**i** Click this icon to **export the list of objects to Excel**:

