

# Boomerang - Repeat Work Analytics

1 — Last update: 2019/06/06

Basis Technologies

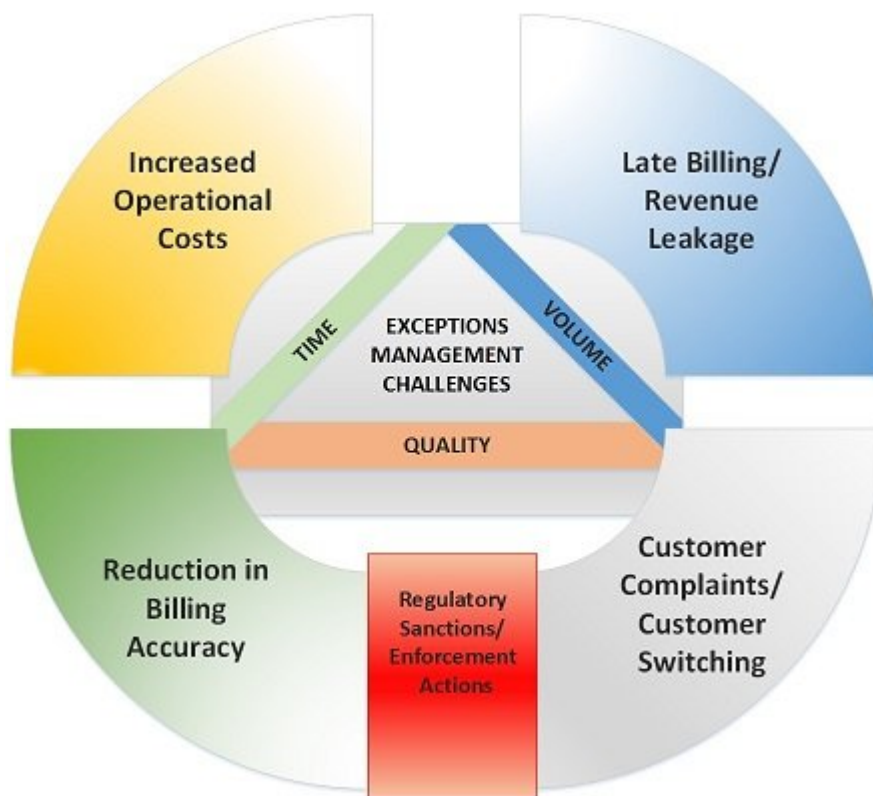
# Table of Contents

- Boomerang Overview ..... 1
- Technical Requirements ..... 4
- Available Programs ..... 5
- Re-work Analytics ..... 6
  - Re-work Runtime Selection Parameters ..... 8
  - Accessing Run History ..... 10
  - Rework Analytics Output ..... 12
  - Detail Mode Output ..... 16
  - Repeat Cases vs. Rework ..... 17
- BPEM Case Alerting ..... 19
  - Configuring Alerts ..... 21
  - Email Recipient Configuration ..... 24
  - Alerting Output ..... 26
    - Accessing Alert History ..... 27
  - Alerting Runtime Selection Parameters ..... 29
- Case Category Configuration ..... 30

# Boomerang Overview

Boomerang is an Add-on to standard SAP IS-U and FI-CA, that provides analytics on SAP exception handling.

We know that BPEM/EMMA exceptions in SAP for Utilities can impact nearly every aspect of operations within a Utility. From increased operational costs to affecting the customer experience. It is therefore important to be able to manage rework rates and to be able to manage team workloads based upon changes in exception volumes.



Boomerang provides the following functionality:

## Re-work analysis for BPEM exceptions.

It's critical that your agents are fixing exceptions first time and are not generating re-work for themselves or others. But how can you know the effectiveness of your Back Office if you do not have the analytics on rework ratios?

Boomerang provides the ability to measure rework levels across the BPEM case categories. In this context we define rework as any new exceptions created because previous cases have not been completed correctly/successfully. Boomerang provides analysis on reoccurring exceptions in the billing system.

Boomerang provides the following analytics capabilities:

- Overall re-work levels across the Back Office.
- Re-work levels per individual Case Category.
- Re-work levels per agent.

### **Proactive alerts to manage spikes in BPEM exceptions.**

Volumes of exceptions can change due to a number of factors. Seasonal variances, changes to tolerance configurations and system changes or defects are just some of possible reasons for a variance in exception numbers.

It can often be difficult to manage the Back Office workloads and respond to changes to the inflow exception volumes. It is for this reason that Boomerang provides the ability for managers to be notified when significant changes to exception volumes occur. Boomerang is designed to provide alerting capabilities for the effective and proactive allocation of Back Office staff. This could be changing the allocation of staff or work priorities to responding to unexpected spikes in certain exceptions. Or it could be that the number of overdue exceptions in a critical area needs to be addressed.

Boomerang provides the ability to perform proactive alerting based upon the following events:

- The number of exception cases created for a particular case category exceeds a configured threshold.
- The total number of open exception cases past their due date is above a configured percentage threshold.
- The total number of open exception cases for a particular case category exceeds a configured threshold.
- The number of exceptions created falls below a minimum tolerance.

When the configured thresholds are breached, email alerts are sent out to the specified recipients. Managers can receive email alerts 'globally' for all configured case categories or alternatively subscribe to

email alerts for particular case category types only.

# Technical Requirements

---

Boomerang is an SAP Add On, utilizing the Diffuser platform from Basis Technologies.

The application runs on IS-U and supports SAP Platforms NetWeaver 7.0 and above. Boomerang is both SAP HANA and Cloud ready.

Boomerang provides analytic and alerting capabilities based upon SAP BPEM (Business Process Exceptions Management). The use of BPEM is a prerequisite for the use of these capabilities.

The alerting functionality requires SAP Connect to be configured for the sending of the email alerts.

# Available Programs

---

The following reports are available as part of this Utilities Solution App from Basis Technologies:

**Rework Analysis Report:**

Technical name: /BTR/MDR\_PP\_ISU\_BOOMERANG\_MDR

Purpose: This report provides the analysis of re-work and repeat exception cases in the IS-U system. It provides the ability to measure re-work at the Case Category and User levels.

**BPEM Exceptions Alerting:**

Technical name: /BTR/MDR\_PP\_ISU\_BPEM\_ALERT\_MDR

Purpose: This report provides the capability for alerting when key events occur relating to exception volumes.

# Re-work Analytics

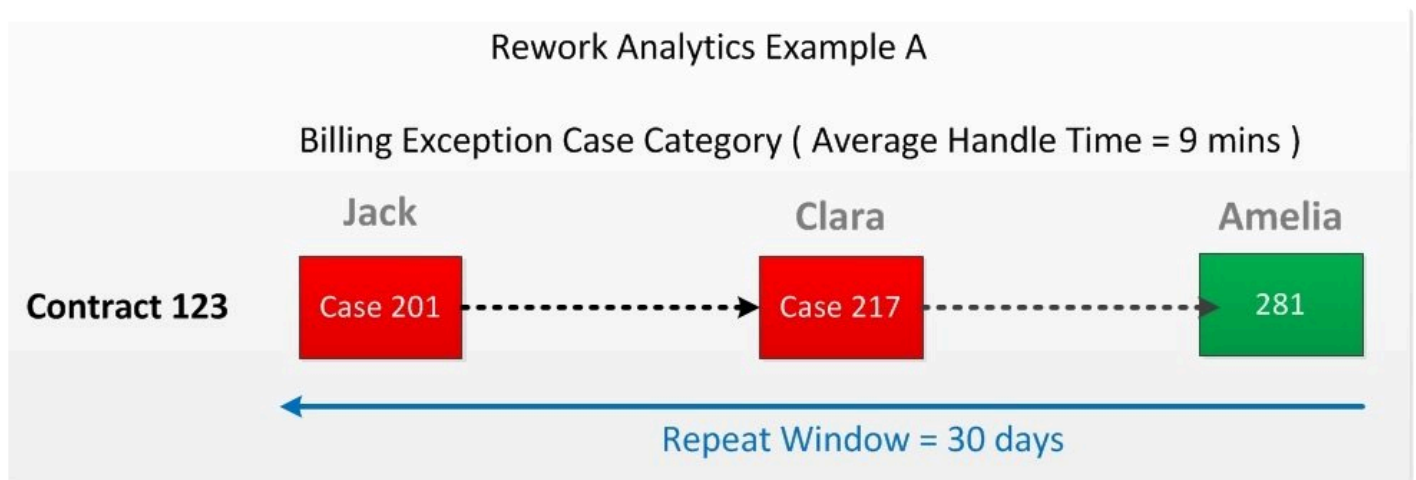
To calculate re-work, the analysis in Boomerang is concerned with the measurement of reoccurring exception cases. This looks at created cases, where the likely cause is a previous case that has not been resolved correctly. What the Boomerang application does, is to go through all of the cases created within a specified date range and work out if there is a matching case that previously existed, for the same object. If the previous case is completed, then we categorise this as potential re-work.

To understand the analysis works, we need to consider the following key elements:

**Exception Case Category:** BPEM/EMMA Exceptions within SAP IS-U are configured against specific case categories, which denotes the type of problem, the work allocation rules and resolution steps required.

**Repeat Window:** Some exceptions may occur naturally over time for the same account. We don't want to categorize these as re-work, therefore we have the concept of a repeat window, where if exceptions of the same type occur within this timeframe, for the same master data object (account, contract, installation, device etc) it is most likely a repetition. This repeat window can be configured at the case category level.

**Matched Object:** In order to establish rework or repetition patterns, we need a way of knowing which cases are related. To achieve this, we use the master data objects in the case containers to match upon. By default this is the primary object within a case but any object in the case container can be used.



In the above example, we have three cases of the same category for the same contract. These have been created within the configured repeat window for this exception case category, 30 days. In this scenario, the contract is the matched object.



Case 201 was generated first and allocated to Jack. He completed the case but didn't resolve the exception correctly.

A new case was subsequently generated, which Clara worked but also did not fix the underlying problem. This is our first example of re-work, since it has been generated as a result of the incomplete resolution of the previous case.

Lastly Amelia received case 281 and correctly resolves the billing exception. This is our second example of rework; if either of the previous cases had correctly resolved the problem first time, case 281 would not have been created.

So, in this example, there are 2 cases with rework, case 271 was generated because 201 previously did not resolve the problem. Case 281 has been created because both 201 and 217 downstream did not fix the issue. This case category has an average handle time of 9 mins, meaning that approximately 18 minutes have been wasted because the problem was not solved first time in case 201. This is the time spent fixing the subsequent cases, which in Boomerang we refer to as the Estimated Time Wastage Time (ETW).

Re-work could be caused by a number of factors. It could be caused agent behavior, problems with the resolution process, a technical defect or the need for improved training. While Boomerang cannot give you the precise details of the cause, it does help you to know where to look.

# Re-work Runtime Selection Parameters

When running the Boomerang report for re-work analytics, the following a number of runtime parameters will determine the output of the report.

**Boomerang: Repeat work analytics**

Technical Settings

Date Selection

Start Date

23.07.2013

End Date

21.10.2015

Analysis Criteria

Case Category

to

Repeat Window (Days)

5

Processing Mode

☒ Summary Mode

☐ Detail Mode

Advanced Options

☒ Rework Only

☒ Only Show Repeat CCATs

☐ Match on Message

☐ Override CCAT specific setting

☐ Users Confirm Cases

## Date Selection

The **Start Date** and **End Date** define the selection period for the report. The report will analyse cases created within this timeframe.

## Analysis Criteria

**Case Category** specifies the case categories that are to be analysed. If left blank, all case categories will be analysed for re-work.

**The Repeat Window** is the gap in days between the creation dates of the cases, used to determine whether a case is re-work or not.

## Processing Mode

The report can be either run in **Summary Mode** or **Detail Mode**. If the report is run in Summary Mode, the report will only show the summaries of the results and will not display the detail for the cases that have generated re-work or the repeat cases. In Detail Mode, these cases will be shown.

## Advanced Options:

**Rework Only:** set to yes as a default, this will only show re-work and not repeat cases.

Refer to section [Repeat Cases vs. Rework](#) for details of the two different types.

**Only Show Repeat CCATs:** set to yes as a default, case categories will only be listed on the report if they have re-work or repeat cases. If this is set to no, all case categories will be displayed in the report.

**Match on Message:** if this is set, the report will match on specific messages contained in the cases to determine re-work.


**Override CCAT specific setting:** it is possible to configure specific rules for the matching of cases and determining re-work at the Case Category level. Boomerang can be configured to specify the rules for the repeat window and whether to match on message for each case category, since different exceptions will have different rules. If this option is set, the specific settings for each case category will be overridden.

**Users Confirm Cases:** Within BPEM there is the ability for cases to go from completed to a status of confirmed. Unfortunately, there is no separate field that records the user details, date and time that a case was confirmed vs. when it was completed. When a case is confirmed, the details of who completed the case and when are overwritten. Therefore, for confirmed cases, the report must go to the change logs in SAP to obtain the details of the user who and the date when the case was set to complete. There is a performance overhead in retrieving the change logs. Some utilities opt that users will confirm a case when it has been completed. Therefore, when this option is set, the confirmed user and date from the EMMA Case table will be used, rather than reading the change logs. This is designed to save processing time. By default, this is turned off.








# Accessing Run History

Historical instance runs and results can be easily accessed via transaction /BTR/MDRH. It allows to search by user, time period, status and program. This is especially useful for making result data available to users without having to rerun the programs. In the selection screen insert your search criteria and execute.

**MDR: Run History**










Select Options

Started By	TENGLAND	to		
Start Date	19.01.2015	to		
Start Time	00:00:00	to	00:00:00	
End Date		to		
End Time	00:00:00	to	00:00:00	
Instance Status		to		
MDR Program		to		

Run History will show a list of the MDR defined program(s) with instances relevant to the search criteria.

**MDR: Run History**

 Transform
  Application Log
 





Diffuser Program	Report title	Run Count
/BTR/MDR_PP_FBDLS	MDR Tool: Conversion of Logical System Names (Fast)	2
/BTR/MDR_PP_RWPOB001	PoGo - Order Cancellation	3
/BTR/MDR_PP_FBDLS_MULTII	System Copy GT: Fast Conversion of Logical System Names	14
/BTR/SAMPLE_FLIGHT_REPORT	Diffuser Sample: Flight Report	26
/BTR/MDR_PP_FBDLS_IVLGEN	System Copy GT: Interval generation	8
/BTR/MDR_PP_CGI_CONTROL_EXEC	Consenti - Compliance Control Engine	3
/BTR/MDR_SAMPLE_FLIGHT_REPORT	Diffuser Sample: Flight Report	39

By drilling down on the program name the user will access the programs instance runs. Select an instance and click "Transform" to display the results of the run.

MDR: Run History								
Transform		Application Log						
Diffuser Program		Report title						Run Count
/BTR/SAMPLE_FLIGHT_REPORT		Diffuser Sample: Flight Report						26
Instance Name	Started By	Start Date	Start Time	End Date	End Time	Instance Status	Comp	Remaining
Qantas Airways Flights	TENGLAND	19.12.2014	15:56:53	19.12.2014	15:58:36	Finished	100%	
American Airlines Flights	TENGLAND	19.12.2014	15:38:18	19.12.2014	15:40:22	Finished	100%	
All Flights	TENGLAND	19.12.2014	15:37:45	19.12.2014	15:39:26	Finished	100%	
BA Flights	TENGLAND	19.12.2014	15:36:11	19.12.2014	15:36:15	Finished	100%	
Run Name	TENGLAND	13.12.2014	01:11:16	13.12.2014	01:12:21	Finished	100%	

In the same manner you can check the application log for error messages.

MDR: Run History								
Transform		Application Log						
Diffuser Program		Report title						Run Count
/BTR/SAMPLE_FLIGHT_REPORT		Diffuser Sample: Flight Report						26
Instance Name	Started By	Start Date	Start Time	End Date	End Time	Instance Status	Comp	Remaining
Qantas Airways Flights	TENGLAND	19.12.2014	15:56:53	19.12.2014	15:58:36	Finished	100%	
American Airlines Flights	TENGLAND	19.12.2014	15:38:18	19.12.2014	15:40:22	Finished	100%	
All Flights	TENGLAND	19.12.2014	15:37:45	19.12.2014	15:39:26	Finished	100%	
BA Flights	TENGLAND	19.12.2014	15:36:11	19.12.2014	15:36:15	Finished	100%	
Run Name	TENGLAND	13.12.2014	01:11:16	13.12.2014	01:12:21	Finished	100%	

Once on the screen above the user will be able to see and administer historical data as well as instances in progress using the functionality mentioned in [Administering MDR Programs](#)

# Rework Analytics Output

When displaying the report output for the Rework Analytics, the user will be presented with the following Overall Summary Screen:

Boomerang: Re-Work Analytics From 21.07.2013 To 19.10.2015

Summary Identification

Overall Summary

Heading	CCATs	% CCAT	Tot Cases	Resolved	Tot Rework	% Rework
Overall Summary	6	50	127	32	25	20

## Overall Summary

At the top of the screen, it displays the report heading which includes From and To dates for the analysis period covered in this execution of the report.

In the Overall Summary, we can see the following information:

### CCATs:

The total number of case categories analysed.

### % CCAT

The percentage number of case categories that have identified rework

### Tot Cases

The total number of cases analysed, across all of the selected Case Categories.

### Resolved

The total number of cases that have been resolved ( statuses completed, cancelled, confirmed)

### Tot Rework

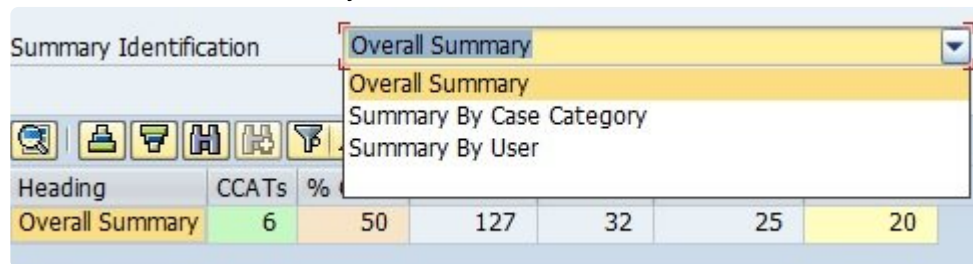
The total number of cases that have been generated as a result of probable rework, across all of the Case

Categories analysed.

### % Rework

The percentage of cases that have been generated as a result of probable rework, across all of the Case Categories analysed.

From the Overall Summary, the user can select the other available views from the dropdown menu:



## Summary By Case Category

Summary Identification													
Summary By Case Category													
Cat.	Case Category Short Text	Σ Tot Cases	Σ Resolved	Σ Tot Rework	% Rework	Rework	Σ ETW (Mins)	Tot Users	Rework Users	% Creating Re-Work	Σ Overdue	Longest Overdue (Days)	
B104	Bill Block Exists on Contract	32	11	16	50	00	96	9	5	56	21	185	
ECC	Move Out Failed For Contract	19	2	6	32	00	360	2	1	50	17	162	
Z006	Implausible read	32	5	3	9	00	30	5	3	60	27	599	
B102	Billing Document for Contract has been outsourced	30	2	0	0	00		2	0	0	28	313	
		113	20	25			486				93		

The summary by Case Category provides the following information for each Case Category being analysed:

### CCAT

The Case Category ID.

### Case Category Short Text

The short text description of the Case Category.

### Tot Cases

The total number of cases for this case category in the analysis period.

### Resolved

The total number of cases that have been resolved cases for this category (statuses completed, cancelled, confirmed).

### Tot Rework

The total number of cases that have been generated as a result of probable rework.

**% Rework**

The percentage rework for this case category.

**Rework**

The rework traffic light indicator, signifying whether the level of rework for this case category is green, amber or red depending on the configured rework tolerances.

**ETW (Mins)**

Estimated Time Wastage. This is the total time, in minutes, that signifies the amount of time that has been potentially wasted due to rework for this case category. This field will only calculate if an Average Handle Time (AHT) has been recorded for this Case Category. This value is only intended as an indicative figure, to estimate the possible amount of time that has been potentially wasted, based upon the volume of rework x the Average Handle Time.

Refer to [Case Category Configuration](#) for details on how to configure the specific AHTs.

**Tot Users**

The total number of users for this case category. This is either users who are assigned to the cases or users who have previously resolved the cases (completed, cancelled etc).

**Rework Users**

The number of users who have generated probable rework for this case category.

**% Creating Re-work**

The % number of users creating the rework. For example 40% of the workforce on this case generating possible rework for the rest of the user community.

**Overdue**

The total number of cases that are overdue, past their scheduled due date.

**Longest Overdue (Days)**

The number of days past the scheduled due date for the most overdue case for this category.



## Summary By User

Summary Identification						
Summary By User						
Processor	Complete name	Σ Tot Cases	Σ Resolved	Σ Tot Rework	% Rework	Rework
BDEXUNIT	Bernard BDEx	1	1	1	100	
RMONTES	Raquel Montes	2	2	2	100	
HHARFORD	Hayley Harford	11	9	4	36	
COLIVER	Craig Oliver	6	2	2	33	
TTICEHURST	Trevor Ticehurst	12	10	4	33	
JHILLIER	Jeremy Hillier	6	5	1	17	
BGREEN	Barry Green	2	0	0	0	
ISZRIMACZ	Imola Szrimacz	3	2	0	0	

The Summary By User view displays the following information for each user:

### Processor

The SAP user id.

### Complete name

The full name of the user.

### Tot Cases

The total number of cases that the user has open and/or has resolved.

### Resolved

The number of cases the user has completed in the analysis period.

### Tot Rework

The number of cases that the user has completed that has resulted in downstream rework.

### % Rework

The percentage of probable rework cases for this user.





### Rework

The rework traffic light indicator, signifying whether the level of rework for this user is green, amber or red depending on the configured rework tolerances.

# Detail Mode Output

By selecting Detail Mode when running the /BTR/MDR\_PP\_ISU\_BOOMERANG\_MDR, the user can click on the specific case category or user ID to see the case details for those BPEM cases that have potentially generated the re-work.

These are the cases that have been completed but have been matched as potential sources of re-work.

Investigate	Case	Clarif. Case Category	Case Category Short Text	Status	Processor	Matched Object	Key	Original Date	Due Date	Downstream
	287	B104	Bill Block Exists on Contract	Completed	TTICEHURST	INSTLN	3000000013	09.05.2015	11.05.2015	7
	280	ECC	Move Out Failed For Contract	Completed	TTICEHURST	MOVEOUTDOC	000000000011	09.05.2015	10.05.2015	6
	272	B104	Bill Block Exists on Contract	Completed	TTICEHURST	INSTLN	3000000013	13.04.2015	15.04.2015	2
	299	B104	Bill Block Exists on Contract	Confirmed	TTICEHURST	INSTLN	3000000013	22.05.2015	24.05.2015	1

The detail view display the following information for each case:

**Investigate:** A red flag icon to represent that this case should be investigated as a source of rework.

**Case:** The BPEM/EMMA case number.

**Clarification Case Category:** The case category id.

**Case Category Short Text:** The short text description of the BPEM Case.

**Status:** The status of the case.

**Processor:** The name of the person who has completed the case (or for repeat cases, the name of the current processor).

**Matched Object:** The object type we have used to match against other, related cases, to determine rework. Depending on the configuration, it could be the primary object or another object in the case container.

**Key:** The key of the matched object.

**Original Date:** The date on which the case was created.

**Due Date:** The due date of the case.

**Downstream:** The number of potential re-work cases that have been created downstream, as a result of this case.

# Repeat Cases vs. Rework

The default setting within the Boomerang application is to restrict the analysis output to Rework, where downstream work is generated as a result of previously completed cases within the repeat window. .

As an advanced setting, Boomerang also has the ability to measure 'Repeat Cases'. The distinction between the two is that Repeat Cases are classified as downstream work generated by any prior cases. These could be cases that have not been worked, cases that have not been allocated, duplicate cases, completed cases or cases that are still in progress. Basically it is any repetition of cases within the configured window.

Repeat Case analysis can be unlocked by unchecking the Rework Only checkbox, in the Advanced Options on the selection screen of the /BTR/MDR\_PP\_ISU\_BOOMERANG\_MDR report.

Advanced Options

☒ Rework Only  
☒ Only Show Repeat CCATs  
☐ Match on Message  
☐ Override CCAT specific setting  
☐ Users Confirm Cases

Repeat cases will then be shown in the Overall Summary:

Summary Identification Overall Summary

Heading	CCATs	% CCAT	Tot Cases	Resolved	Tot Repeat	% Repeat	Tot Rework	% Rework
Overall Summary	4	25	55	4	45	82	6	11

in the Summary By Case Category:

Summary Identification Summary By Case Category

Cat.	Case Category Short Text	Σ Tot Cases	Σ Resolved	Σ Tot Repeat	% Repeat	Σ Tot Rework	% Rework	Rework	Tot Users	Rework Users
BI04	Bill Block Exists on Contract	8	4	7	88	6	75		1	1
BI02	Billing Document for Contract has been outsourced	25	0	21	84	0	0		0	0
ECC	Move Out Failed For Contract	4	0	3	75	0	0		0	0
Z006	Implausible read	18	0	14	78	0	0		0	0
		55	4	45		6				

and a repeated case that has not already been classified as rework, will appear in the Case Detail view:

Investigate	Case	Clarif. Case Category	Case Category Short Text	Status	Processor	Matched Object	Key	Original Date	Due Date	Downstream
	311	BI04	Bill Block Exists on Contract	New		INSTLN	3000000013	27.07.2015	29.07.2015	7

The benefit of analysing repeat cases, is that it can highlight process errors or design issues, such as the creation of duplicate cases.

# BPEM Case Alerting

---

Changes to BPEM case volumes can occur for a number of reasons, seasonal variances, system defects, tariff changes, or unexpected increases in certain customer activities, for example an influx of home-moves or acquisitions.

It can often be difficult to manage the Back Office workloads and respond to changes to the inflow case volumes. No matter what the cause, ideally we would like to know ahead of time if there have been significant events concerning the case volumes. It is for this reason that Boomerang provides the ability for managers to be notified when significant changes to volumes of cases occur.

**BPEM Case Alerting** within Boomerang, will pro-actively alert managers via email when the following scenarios occur:

- **The number of BPEM cases created in in the last x hours exceeds a configured threshold.**

In the event that you have a larger than expected number of cases created overnight, your operations and/or billing managers can be notified.

- **The total number of open BPEM cases past their due date is above a particular percentage threshold.**

For example if we have 50% or more of our billing outsorts BPEM cases that are past their due dates. This is particularly useful if the due date for the case relates to some form of regulatory compliance or impact to the customer journey.

- **The total number of open BPEM cases for a particular case category exceeds a configured threshold.**

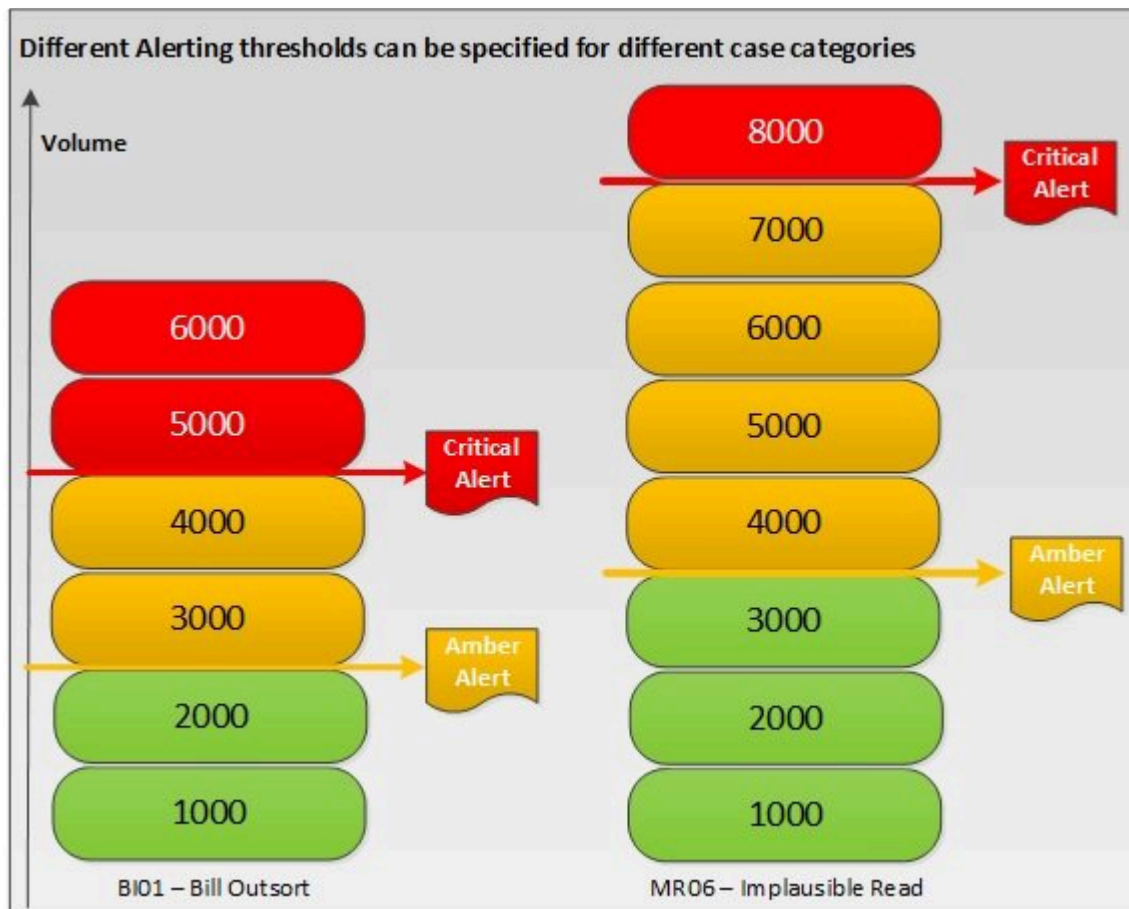
This is where your total backlog of cases is far higher than expected.

- **The number of BPEM cases created falls within the last x hours is below a minimum tolerance.**

Perhaps no cases have been created, or far fewer than normal. Perhaps there is an interface issue, batch failure or other defect that is preventing the cases from being created. Ideally we would like to know as soon as possible, so that the Back Office teams are not stranded without work.

**Alerting rules are configurable at Case Category level**

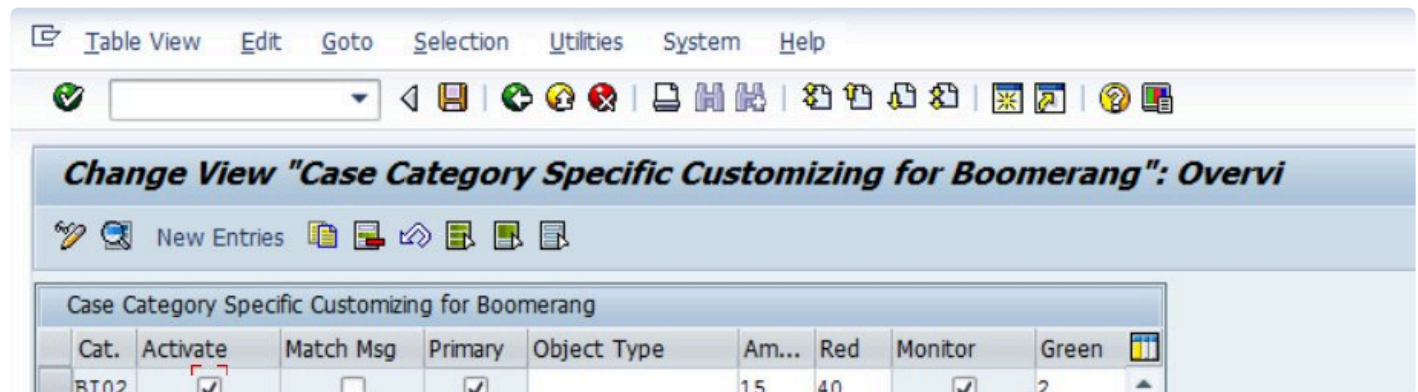
Boomerang provides the ability to configure different alerts thresholds for different case categories, for each of the above scenarios.



# Configuring Alerts

Boomerang alerts are configured using transaction :

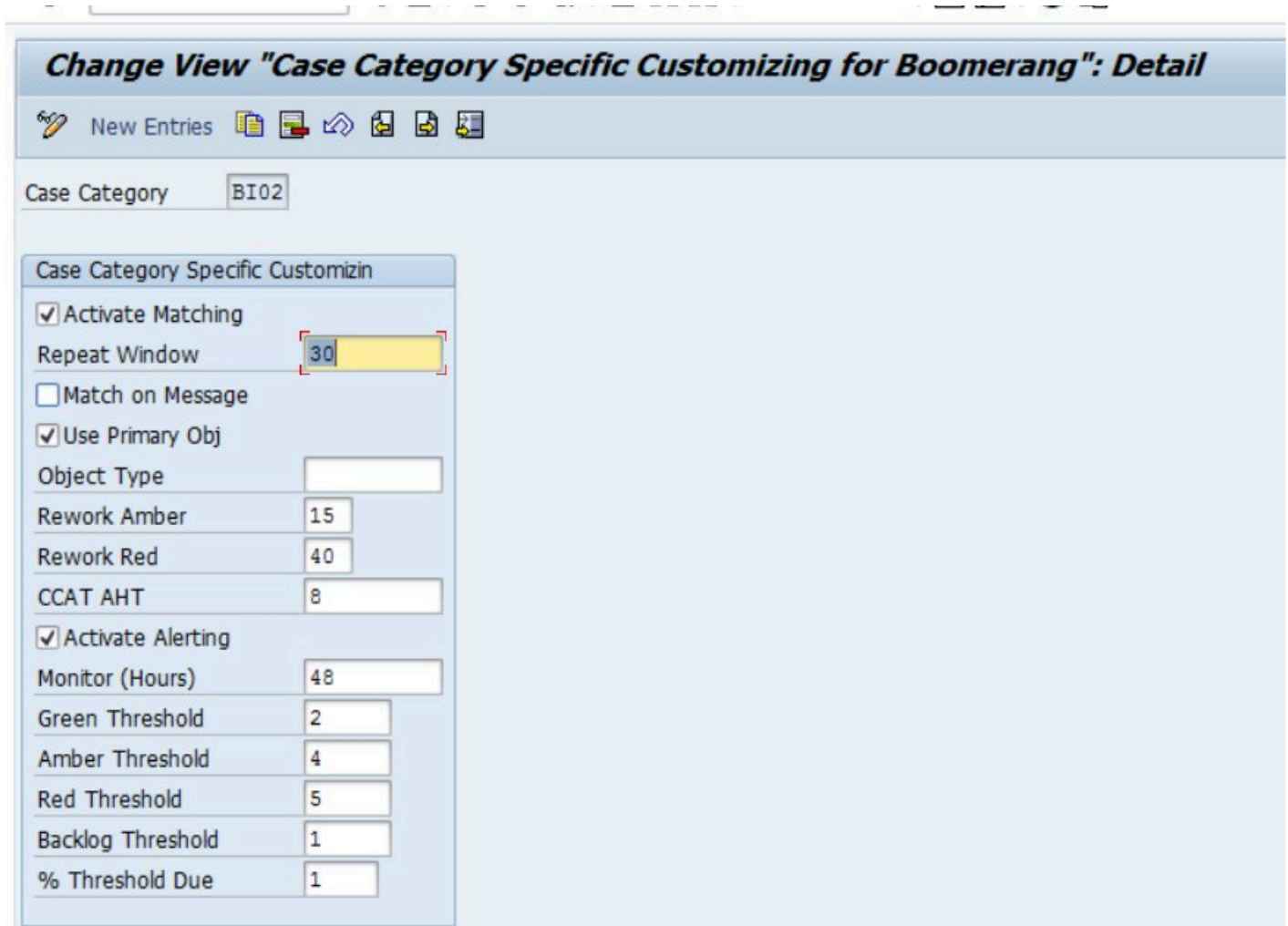
**/BTR/PP\_BOO\_CONFIG**



To set up a new alert click the 'New Entries' button.

To edit an existing alert double click the alert row.





**Change View "Case Category Specific Customizing for Boomerang": Detail**

New Entries

Case Category

**Case Category Specific Customizin**

☒ Activate Matching

Repeat Window

☐ Match on Message

☒ Use Primary Obj

Object Type

Rework Amber

Rework Red

CCAT AHT

☒ Activate Alerting

Monitor (Hours)

Green Threshold

Amber Threshold

Red Threshold

Backlog Threshold

% Threshold Due

Alerting rules are configurable at Case Category level. Boomerang provides the ability to configure different alerts thresholds for different case categories.

The following values are relevant to BPEM case Alerting.

**Activate Alerting:** Enables / disables alerting for the case category.

**Monitor( Hours ):** The number of hours in the past Boomerang will monitor to generate alerts.

Alerting for Green, Amber, Red and % Threshold Due use Monitor( Hours ) to calculate the number of hours in the past Boomerang looks back to generate alerts. For example: if monitor hours is set to 48, boomerang will look at all exceptions in the past 48 hours ( from the time the program is run) and generate relevant alerts.

Alerts will be generated if any of the following thresholds are breached in the past Monitor( Hours ):



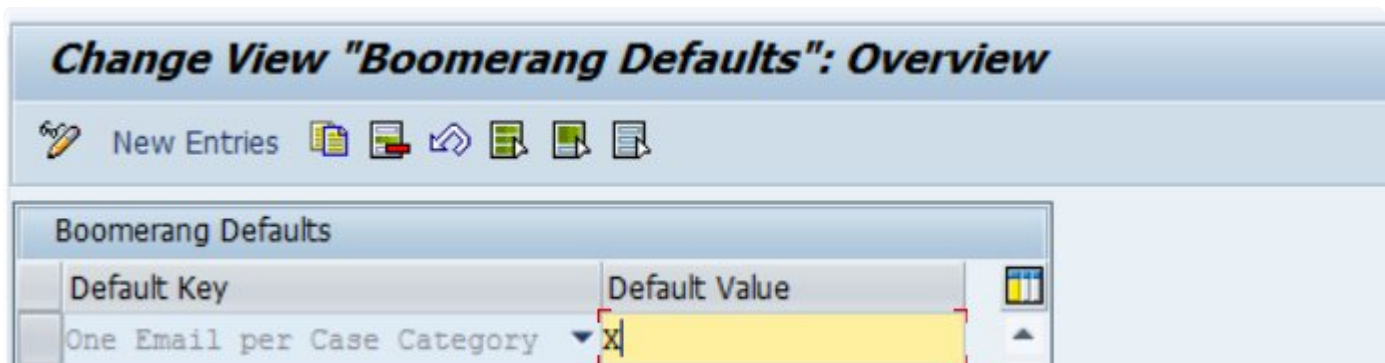
- **Green Threshold:** If the number of cases generated in the past Monitor( Hours ) is below this threshold an alert is raised as this may indicate defect that is preventing the cases from being created
- **Amber Threshold:** If the number of cases generated in the past Monitor( Hours ) is above this threshold.
- **Red Threshold:** If the number of cases generated in the past Monitor( Hours ) is above this threshold.
- **% Threshold Due::** If the total number of open cases past their due date is above this percentage threshold

**Backlog Threshold::** If the total number of cases in open status exceeds this value an alert is raised. This alert does not consider Monitor( Hours ) as its the total number of BPEM cases currently open in the system.

## Email Format

Recipients can receive an email for each case category or a consolidated email with alerts for all case categories subscribed.

The transaction to change the default email format is **/BTR/MDR\_BO\_DEFL**.










The default key value can be set to 'X' or blank to get one email per case category or a consolidated email.

# Email Recipient Configuration

Email recipients for exception alerts can be maintained using transaction:








**/BTR/PP\_BOO\_EMAILS**

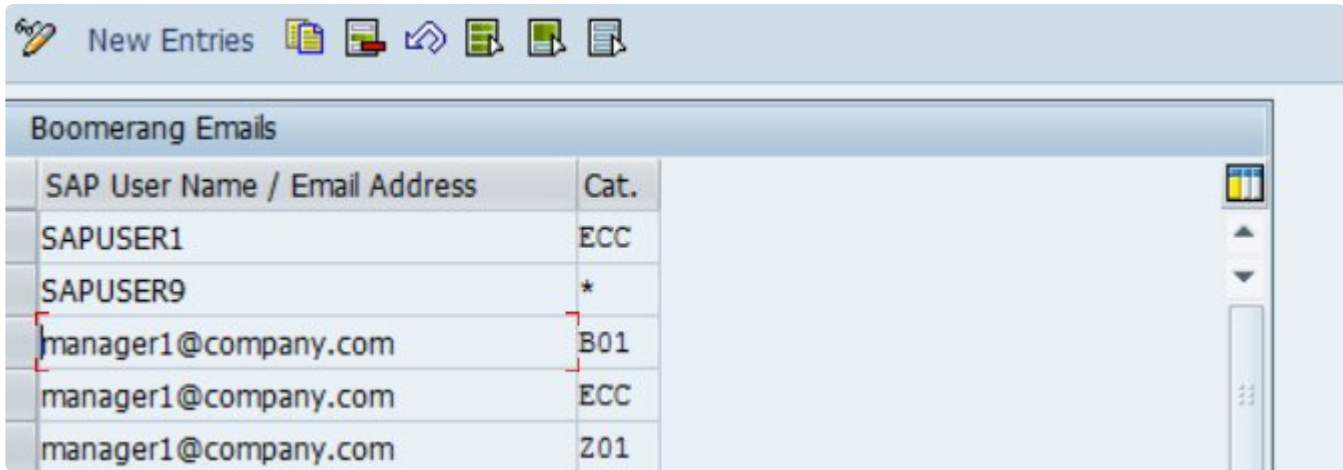
 New Entries      		
Boomerang Emails		
SAP User Name / Email Address	Cat.	
manager1@company.com	B01	
manager2@company.com	*	

To add a recipient enter their email address or SAP user ID and the case category for which the recipient needs to be alerted.

A recipient can be setup to receive alerts for one, multiple or all case categories.

- Use \* in the case category field for subscribing to alerts for all case categories.
- To subscribe a recipient to one or several case categories but not all, enter their email / user ID against each category.
- SAP User IDs can be entered instead of email address and boomerang will get thier email id from the user profile.

 New Entries      		
Boomerang Emails		
SAP User Name / Email Address	Cat.	
manager1@company.com	B01	
manager1@company.com	ECC	
manager1@company.com	Z01	
manager2@company.com	*	



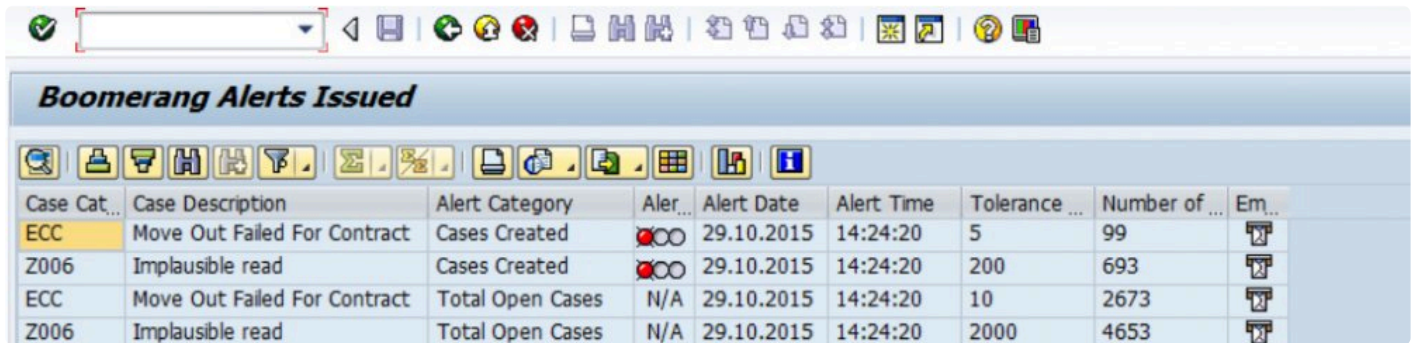
SAP User Name / Email Address	Cat.
SAPUSER1	ECC
SAPUSER9	*
manager1@company.com	B01
manager1@company.com	ECC
manager1@company.com	Z01

## Prerequisites

- The alerting functionality requires SAP Connect to be configured for the sending of the email alerts.
- If entering SAP user ID's ensure that the user's SAP profile has a valid SMTP / internet email address.

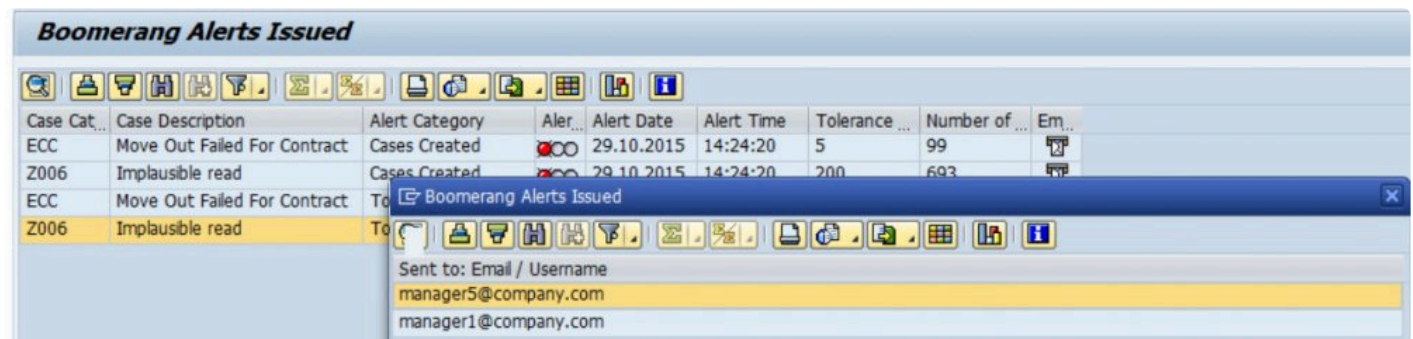
# Alerting Output

The alerting program sends out email alerts and then displays a report with the alerts issued per case category.



Case Cat...	Case Description	Alert Category	Aler...	Alert Date	Alert Time	Tolerance ...	Number of ...	Em...
ECC	Move Out Failed For Contract	Cases Created	●○○	29.10.2015	14:24:20	5	99	✉
Z006	Implausible read	Cases Created	●○○	29.10.2015	14:24:20	200	693	✉
ECC	Move Out Failed For Contract	Total Open Cases	N/A	29.10.2015	14:24:20	10	2673	✉
Z006	Implausible read	Total Open Cases	N/A	29.10.2015	14:24:20	2000	4653	✉

Double clicking on the mail icon will display a popup with the list of email recipients which were sent an email for that alert.



Case Cat...	Case Description	Alert Category	Aler...	Alert Date	Alert Time	Tolerance ...	Number of ...	Em...
ECC	Move Out Failed For Contract	Cases Created	●○○	29.10.2015	14:24:20	5	99	✉
Z006	Implausible read	Cases Created	●○○	29.10.2015	14:24:20	200	693	✉
ECC	Move Out Failed For Contract	To						
Z006	Implausible read	To						

**Boomerang Alerts Issued**

Sent to: Email / Username

manager5@company.com

manager1@company.com

## Alert email log

The alerting report is stored in the system and can be accessed at any time to see historical runs of the program (See "Accessing Alert History") .

## Email Format

Based on how the alerts are configured, recipients will receive an email for each case category or a consolidated email with alerts for all case categories subscribed. The set up for consolidated email alerts is described here: [Configuring Alerts](#)

# Accessing Alert History

Historical instance runs and results can be easily accessed via transaction /BTR/MDRH.

**MDR: Run History**

Select Options

Started By	*	to		
Start Date	01.10.2015	to		
Start Time	00:00:00	to	00:00:00	
End Date		to		
End Time	00:00:00	to	00:00:00	
Instance Status		to		
MDR Program	/BTR/MDR_PP_ISU_B...	to		

MDR Program Name: /BTR/MDR\_PP\_ISU\_BPEN\_ALERT\_MDR

**MDR: Run History**

Transform Application Log Results Intervals Variants App. Servers

MDR Program	Report title	Run Count
/BTR/MDR_PP_ISU_BPEN_ALERT_MDR	Boomerang BPEN Alerting	10

Instance Name	Started By	Start Date	Start Time	End Date	End Time	Instance Status	Comp	Remaining	Active Job	-	+
		29.10.2015	14:24:14	29.10.2015	14:24:23	Finished	100%				
		29.10.2015	14:18:29	29.10.2015	14:18:40	Finished	100%				
		29.10.2015	14:17:04	29.10.2015	14:17:15	Finished	100%				
		22.10.2015	12:16:46	22.10.2015	12:16:57	Finished	100%				
		22.10.2015	09:51:34	22.10.2015	09:52:05	Finished	100%				
		22.10.2015	09:50:30	22.10.2015	09:51:22	Finished	100%				
		22.10.2015	09:44:23	22.10.2015	09:50:24	Finished	100%				
		22.10.2015	09:43:25	22.10.2015	09:43:29	Finished	100%				
		22.10.2015	09:36:41	22.10.2015	09:41:31	Finished	100%				
		22.10.2015	09:35:52	22.10.2015	09:36:02	Finished	100%				

Select an instance and click "Transform" to display the results of the run.



**MDR: Run History**

Transform Application Log Results Intervals Variants App. Servers

MDR Program	Report title	Run Count
/BTR/MDR_PP_ISU_BPEN_ALERT_MDR	Boomerang BPEN Alerting	10

Instance Name	Started By	Start Date	Start Time	End Date	End Time	Instance Status	Comp	Remaining	Active Job	-	+
		29.10.2015	14:24:14	29.10.2015	14:24:23	Finished	100%				
		29.10.2015	14:18:29	29.10.2015	14:18:40	Finished	100%				
		29.10.2015	14:17:04	29.10.2015	14:17:15	Finished	100%				
		22.10.2015	12:16:46	22.10.2015	12:16:57	Finished	100%				
		22.10.2015	09:51:34	22.10.2015	09:52:05	Finished	100%				
		22.10.2015	09:50:30	22.10.2015	09:51:22	Finished	100%				
		22.10.2015	09:44:23	22.10.2015	09:50:24	Finished	100%				
		22.10.2015	09:43:25	22.10.2015	09:43:29	Finished	100%				
		22.10.2015	09:36:41	22.10.2015	09:41:31	Finished	100%				
		22.10.2015	09:35:52	22.10.2015	09:36:02	Finished	100%				

In the same manner you can check the application log for error messages.

**MDR: Run History**

Transform Application Log Results Intervals Variants App. Servers

MDR Program	Report title	Run Count
/BTR/MDR_PP_ISU_BPEN_ALERT_MDR	Boomerang BPEN Alerting	10

Instance Name	Started By	Start Date	Start Time	End Date	End Time	Instance Status	Comp	Remaining	Active Job	-	+
		29.10.2015	14:24:14	29.10.2015	14:24:23	Finished	100%				
		29.10.2015	14:18:29	29.10.2015	14:18:40	Finished	100%				
		29.10.2015	14:17:04	29.10.2015	14:17:15	Finished	100%				
		22.10.2015	12:16:46	22.10.2015	12:16:57	Finished	100%				
		22.10.2015	09:51:34	22.10.2015	09:52:05	Finished	100%				
		22.10.2015	09:50:30	22.10.2015	09:51:22	Finished	100%				
		22.10.2015	09:44:23	22.10.2015	09:50:24	Finished	100%				
		22.10.2015	09:43:25	22.10.2015	09:43:29	Finished	100%				
		22.10.2015	09:36:41	22.10.2015	09:41:31	Finished	100%				
		22.10.2015	09:35:52	22.10.2015	09:36:02	Finished	100%				

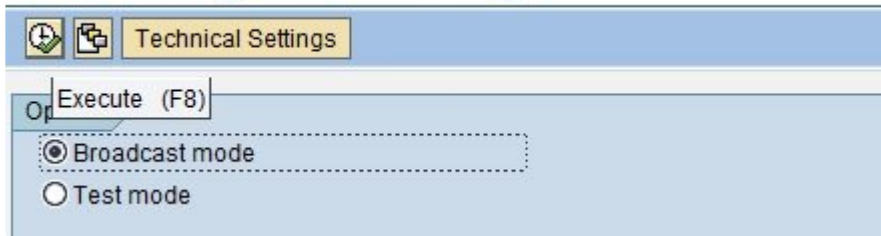
Once on the screen above the user will be able to see and administer historical data as well as instances in progress using the functionality mentioned in "Administering MDR Programs"

# Alerting Runtime Selection Parameters

---

The parameters for the /BTR/MDR\_PP\_ISU\_BPEM\_ALERT\_MDR program are very simple.

## Boomerang BPEM Alerting



There are two modes **Broadcast** and **Test**. In broadcast mode Boomerang will run the analysis for alerting and send email alerts to the recipients when the alerting configured thresholds have been exceeded. In test mode, the analysis will still be run but the emails will not be sent.

# Case Category Configuration

Boomerang provides the ability to configure settings specific for each individual case category. The configuration table for this is /BTR/MDR\_BO\_CCAT. This table holds the case category specific settings for both the rework analysis and the alerting functionality.

## Re-Work Analytics Configurations

Technical Field Name	Field Description	Purpose
CCAT	Case Category	Specifies the ID of the Case Category being configured
ACTIVATE_MATCH	Activate Matching	Activates the case category specific rules for rework matching
REPEAT_WINDOW	Repeat Window	The repeat window in days specific to this case category for rework analysis
MESSAGE_MATCH	Match on Message	Match on specific messages for rework analysis
USE_PRIMARY	Use Primary Obj	Use the primary object to match cases for this case category
USE_OBJECT	Object Type	This field is used to specify which object to match upon if not using the primary object
REWORK_AMBER	Rework Amber	% rework level that is considered an 'amber' traffic light
REWORK_RED	Rework Red	% rework level that is considered a 'red' traffic light
CCAT_AHT	CCAT AHT	The average handle time for this case

## Alerting Configurations

Technical Field Name	Field Description	Purpose
ACTIVE_MONITOR	Activate Alerting	Activates alerting for this case category
MONITOR_PERIOD	Monitor (Hours)	Determines the time window in hours to monitor the creation of cases of this category
MONITOR_GREEN	Green Threshold	Defines the minimum number of cases to be created in the specified monitoring window
MONITOR_AMBER	Amber	Defines the threshold for the creation of amber alerts



	Threshold	
MONITOR_RED	Red Threshold	Defines the threshold for the creation of 'red' critical alerts
MONITOR_CREATION	Backlog Threshold	Generate an alert when the total open backlog exceeds this value
MONITOR_DUEDATE	% Threshold Due	Generate an alert when the number of open overdue cases exceeds this %

More comprehensive instructions about Alerting Configurations are detailed here: [BPEM Case Alerting](#)

Case Category **BI02**

Case Category Specific Customizin

☒ Activate Matching

Repeat Window

☐ Match on Message

☒ Use Primary Obj

Object Type

Rework Amber

Rework Red

CCAT AHT

☒ Activate Alerting

Monitor (Hours)

Green Threshold

Amber Threshold

Red Threshold

Backlog Threshold

% Threshold Due