BHP Billiton Iron Ore

RECONCILOR V6.0 Training Manual

Version 1.0

bhpbilliton

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Document Distribution

Name	Position
Peter Morgan	Program Manager
Neil McAlpine	Senior Project Geologist
Jason Gotte	Resource Geologist
Paul Maney	Principal Geologist
Craig Morley	Snowden Group General Manager – Technologies
Brett Kazmer	Project Manager

References

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1 Introduction

This Training Guide has been designed to assist in the one day train the trainer course.

User scenarios in this training guide have been designed to enable the trainee to gain a detailed understanding of the RECONCILOR F1F2F3 reconciliation system and associated reporting, implemented at BHP Billiton Iron Ore operations.

1.1   Document Structure

The user scenarios for each of the RECONCILOR user interfaces have been grouped into the standard and enhanced functionality and reports:

- RECONCILOR Standard V6

    o Standard RECONCILOR V6.0 functionality

- RECONCILOR V6 System Enhancement

    o BHP Billiton Iron Ore specific functionality

- RECONCILOR V6 Reporting

    o BHP Billiton Iron Ore specific reporting requirements

2 RECONCILOR Standard V6

2.1 BLASTBLOCKS User Interface

The Blastblocks tab is designed to facilitate the management of blocks and the retrieval of block related data. The key source of this information is generally obtained through the importation of block models from external sources.

2.1.1 View a blast block

Use Case	View Blast block predicted and actual data
Description	The RECONCILOR user wants to view detailed information of a particular Blast block
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	The Blast block is contained within the current block model import
Steps	1. In RECONCILOR navigate to the Blastblocks Tab and select either Blastblock List or Blastblock Tree from the Blastblock Menu 2. The Blastblock List can then be filtered by Location, State, or Start Date range. 3. Select a Blastblock Id hyperlink to view Attributes, Mining history and Location e.g. CE-629-552-6 4. View the predicted tonnes and grades from various models as well as actual hauled, surveyed and reconciled attributes 5. View detailed haulage records for selected date range by selecting Mining tab 6. View location of selected blast block and surrounding blast blocks in plan view
Variations	Any dummy blocks need to be created in Blastholes 4 and MQ2, and imported into Reconciler. The functionality to create Blast Blocks has been removed from the RECONCILOR implementation.
Post Conditions	The user can export the Blastblock Attributes or Mining activity tables to CSV file if required.
Issues	N/A

2.1.2   Change columns displayed on Blastblocks Screen

Use Case	Change columns displayed on Blastblocks Screen
Description	The RECONCILOR user wants to re-order, add or remove a column in the Digblock List.
Actors	RECONCILOR Administrator RECONCILOR
Assumptions (Pre Conditions)	The user has permission to access the User Interface Listing on the Utilities page.
Steps	1. In RECONCILOR the user navigates to the Utilities Tab and selects 'User Interface Listing' from the list. 2. Select 'Edit Columns' for Digblock Listing. 3. The user can modify the order, field display name, the width of the columns, enable and disable columns on the screens and display sum amounts for selected columns. a. With the Field Display Name the user can add ' ' to break the words to a new line. For example 'Approved Removed Tonnes' will put the word Approved on the top line and Removed Tonnes on the second line. 4. Save columns when complete
Variations	N/A
Post Conditions	The Digblock List and Digblock Tree columns are modified.
Issues	N/A

2.1.3   Change the name of a Hub

Use Case	Change Hub names displayed on Blastblocks Screen
Description	The RECONCILOR user wants to change the name of a Hub e.g. Area C to Central Pilbara
Actors	RECONCILOR Administrator RECONCILOR
Assumptions (Pre Conditions)	The user has permission to access the Referential Data on the Utilities page.
Steps	1. In RECONCILOR the user navigates to the Utilities Tab and selects 'Locations' from the Referential Data table. 2. Expand the location tree to AreaC node 3. Select the Edit hyperlink. This will open an Edit Location table in which the user can change the AreaC name to Central Pilbara 4. Save location edits when complete 5. Select Blastblocks tab to view the changed location
Variations	N/A
Post Conditions	The AreaC hub name is changed to Central Pilbara in both the Digblock List and Digblock Tree screens
Issues	N/A

2.2 STOCKPILES User Interface

The Stockpile Tab screen shows a summary of the total tonnes on a stockpile based on production, survey and trucking information. It also shows the number of tonnes added for the current month.

2.2.1 View current tonnes on a stockpile

Use Case	View current stockpile balances as well as total tonnes added in the current month to date
Description	The RECONCILOR user wants to view current tonnes on a Stockpile or the total amount of tonnes added to the stockpile during the current month
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	The Stockpile has been imported into RECONCILOR through the Stockpile Data Importation
Steps	1. In RECONCILOR navigate to the Stockpiles Tab 2. The Stockpile List can then be filtered by Location through the Location Hierarchy filter, Open or Closed Stockpiles, Ore Type, or Start Date range. 3. If the user knows the part of a stockpile name this can be typed into the Stockpile Name filter e.g. 001 4. Stockpiles are grouped or viewed ungrouped. Stockpile grouping can be managed by the RECONCILOR Administrator through the Utilities tab/Referential Data/Stockpile Groups. Grouped stockpiles will show aggregated values for the group on this page. 5. The Stockpile List will display the Stockpile Name and associated current tonnes on the stockpile as well as display any additions to the stockpile in the current month
Variations	N/A
Post Conditions	As negative stockpiles identify a fault in the on/off transactions of a stockpile, they are flagged in red font and raised as a Data Exception to enable the source data to be corrected
Issues	N/A

2.2.2   Obtain detailed information about a stockpile

Use Case	View 08001G1 Stockpile balances and for April 2008
Description	The RECONCILOR user wants to view detailed information regarding a particular stockpile over a specified period.
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	The Stockpile has been imported into RECONCILOR through the Stockpile Data Importation

Steps	1. In RECONCILOR navigate to the Stockpiles Tab
	2. Select a Stockpile Name hyperlink to open the Stockpile View screen of the selected stockpile e.g. 08001G1 Post Crusher Stockpile
	3. View the Stockpile Details:
	    a. Description
	    b. Ore Type
	    c. Modelling Type
	    d. State
	    e. Stockpile Group
	    f. Date last adjusted
	    g. Reason for last adjustment
	    h. View Stockpile changes over the period 1-Apr-2008 to 30-Apr-2008 (table and graphically)
	    i. View current tonnes and grades (as at current date)
	4. Select Balances tab
	    a. The View Stockpile balances screen will display closing balances, additions to the stockpile and removals from the stockpile for the period specified in the filter box.
	5. Select Charting tab
	    a. The chart is interactive allowing the user to specify the attributes to be charted on the left and right axis. Select the date range 1-Apr-08 to 30-Apr-08
	6. Select Activity tab
	    a. The activity screen allows the user to view all additions, removals and adjustments for a given period.
	    b. Select the date range 1-Apr-08 to 30-Apr-08 and note the manual adjustment of 22,293 on 19th April 2008.
	7. Select Genealogy tab
	    a. This screen shows a breakdown of the Blastblocks that comprise the stockpile. Through daily trucking and production data tonnes additions and removals, stockpiles can be modelled. The composition of a stockpile can be determined back to the Blastblocks that were mined by tracking and modelling of the stockpiles.
	8. Select Location tab
	    a. The user is able to upload a location diagram, map, photos of the stockpile by editing the location section in edit stockpile.

Variations	N/A
Post Conditions	Negative stockpiles identify a fault in the on/off transactions of a stockpile, they are flagged in red font and raised as a Data Exception to enable the source data to be corrected
Issues	N/A

2.2.3   Change columns displayed on Stockpile Listing Screen

Use Case	Change columns displayed on Stockpile Listing Screen
Description	The RECONCILOR user wants to re-order, add or remove a column in the Stockpile Listing screen.
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	The user has permission to access the User Interface Listing on the Utilities page.
Steps	1. In RECONCILOR the user navigates to the Utilities Tab and selects 'User Interface Listing' from the list. 2. Select 'Edit Columns' for Stockpile Listing. 3. The user can modify the order, field display name, the width of the columns, enable and disable columns on the screens and display sum amounts for selected columns. 4. With the Field Display Name the user can add ' ' to break the words to a new line. For example 'Approved Removed Tonnes' will put the word Approved on the top line and Removed Tonnes on the second line. 5. Save columns when complete
Variations	N/A
Post Conditions	The Stockpile List columns are modified.
Issues	N/A

2.3 ANALYSIS User Interface

The Analysis tab provides the user with the ability to perform comparisons and analysis on various portions of data within the system. From this area the user is able to create their own reports based on predefined views of the data as well as view the internal logic of the system.

2.3.1   Compare the variation in two data measures

|	
Use Case	Compare the variation between predicted tonnes in the Mining model and Actual Haulage data for a selected blast
Description	The RECONCILOR user wants to have a visual representation of variances between modelled data and actual data for a blast
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	The user may change the percentage and representative colour for each variance bracket using the Comparison Variance Setup accessed through the Analysis screen
Steps	1. In RECONCILOR the user navigates to the Analysis Tab. 2. Click on the drop down for Location and select the minesite level 3. Click on the drop down for Location and select the pit level 4. Click on the drop down for Location and select the Bench level 5. Click on the drop down for Location and select the Blast level 6. Select a Date From and Date To for a month period. For example: From Date: 01-Jan-2007 to 31-Mar-2008 7. Select Comparison A – Block Model, Block Model Type: Mining Model. 8. Select Comparison B – Actual Haulage 9. Select Use Colours 10. Click 'Filter' 11. Hover over a block 12. Change the Filter, Set to Use Circles 13. Click 'Filter' 14. Click 'Comparison Variance Setup' on the left Analysis Task box. 15. Change the Colour Variance A. 16. Click 'Save' The ability to compare data spatially is based on variances between two data measures for a given location and date range. The variance can be represented by circles or colours specified in the variance setup screen. There are five types of comparison, Digblock Model, Mine Plan, Haulage, Survey and Reconciled numbers. Clicking the legend will direct you to the variance setup screen. The user can modify the percentages brackets to use when rendering the visuals on the spatial comparison screen. For each bracket the user may also specify the colour to render the Digblock as when its variance is within it.
Variations	Additional attribute filters are provided for BHPBIO allowing users to select Tonnes, Fe, SiO2, Al2O3, P and LOI to display in the Blastblock Spatial Comparison.
Post Conditions	The Blast is displayed in plan view with the variation between the predicted mining model tonnes and the actual haulage tonnes for each block coloured according to the degree of variation.
Issues	N/A

2.3.2   View a transaction in the Recalculation Logic Viewer

Use Case	View Recalculation Logic Viewer
Description	Use the recalculation logic viewer to interrogate the origin and transformation of an individual transaction.
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	The user has permission to use the recalculation logic viewer tool.

Steps	1. In RECONCILOR the user navigates to the Utilities Tab and select 'Recalculation Logic Viewer'
	2. Use the various filters to limit the records that will be shown:
	    a) Date from, date to
	    b) Shift from, shift to
	    c) Source type: Digblock, stockpile, crusher
	    d) Source: will be a dropdown list based on the source type
	    e) Destination type: All, stockpile, crusher
	    f) Destination: will be a dropdown list based on the destination type
	    g) Transaction type: haulage or weightometer
	3. When the filters have been filled out, select 'Filter'
	4. The list returned provides the user with a tree view for each individual transaction; its nodes can be expanded to drill down into the change history for that record. Under the summary records for each level there is the change history that the record went through to determine the summary record. On these records a view option is available for the user to view a full text description of the change and all attributes (tonnes and grades) side by side for comparison.
	
	The data being shown on this screen is produced by the recalculation engine as it processes or reprocesses the transaction.

Variations	N/A
Post Conditions	N/A
Issues	N/A

2.4 REPORT MANAGEMENT User Interface

2.4.1 Ad-Hoc Reporting – Create your own reports

Use Case	Ad-Hoc Reporting – Create your own report and add it to the screen
Description	The user wants to create a new report and add it to the screen for everyday use and allow others to use it. This example shows a user wants to create a Haulage report in table format.
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	The user has permissions to Report Management on the Reports Tab
Steps	1. In RECONCILOR the user navigates to the Reports Tab and selects 'Report Management' from the Reports box. 2. Click 'Ad-hoc Report Builder' allows the user to create simple customised reports. When a user runs Ad-hoc report builder for the first time they may get the following security warning. Click 'run' to continue. On the right hand side of the Report Builder screen the user can select a source of data. 1. Select 'Haulage'. 2. Under report layout select 'Table' and then click OK.
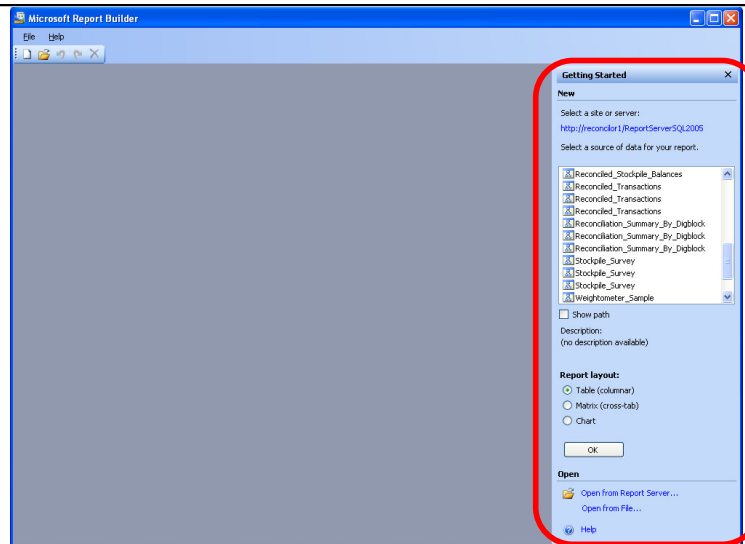
3.   The Microsoft Report Builder design report screen opens with the table and fields the user selected. In the field list (area circled) the user can double click on the fields that they want displayed on the report.
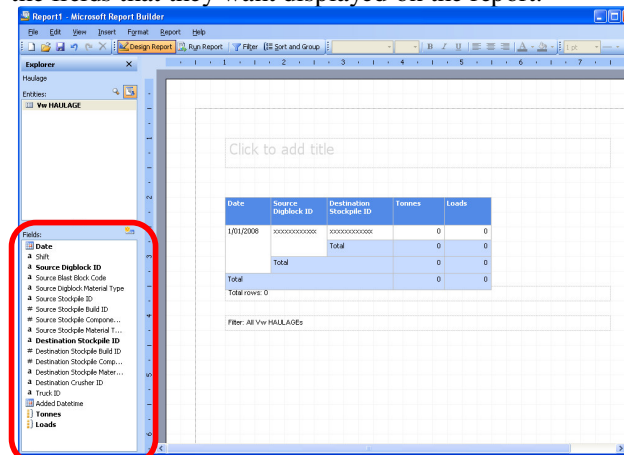
4.   The user can click on 'Click to add title' to add a title for the report.

5.   The user can add a date filter by clicking Report (on the menu) and then selecting Filter. The user then double clicks on Date in the fields list. Click on 'equals' to get a drop down list and selecting 'From … To'. Enter the dates and click OK.
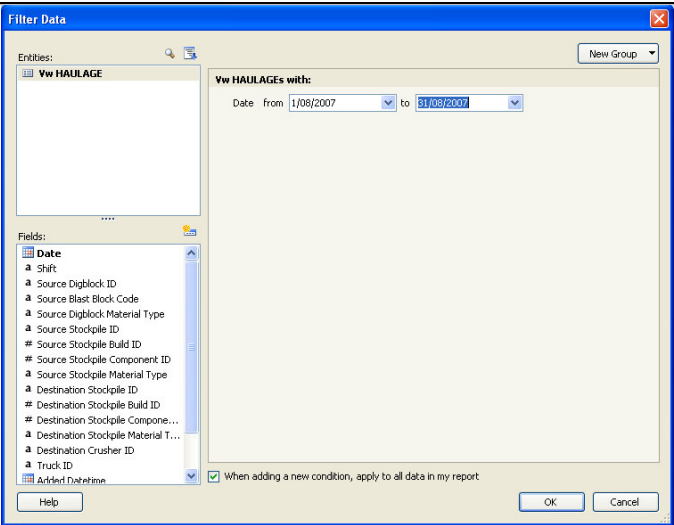
6.   The user can then run the report to check that the report prints as expected. To do this click on 'Run Report' on the Tool Bar.

Once the report is fine tuned save the report. Select File and then click Save to File. The user can select a location to save the report to. Close Report Builder.

Variations	
Post Conditions	Report is available for publishing
Issues	For more information to create reports and to edit reports click on Help within SQL Server and then select Report Builder Help.

2.4.2   Publish your ad-hoc report to the UI

Use Case	Publish your ad-hoc report to the UI
Description	Create and then publish a new report so that everyone can utilise it
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	The report has been created and saved to a file.
Steps	1. To add the report to RECONCILOR the user can select 'Upload a Report' and browse for the saved report, 2. Add a report name, description and report group. That report is now available to all users.
Variations	N/A
Post Conditions	Report is available for all users
Issues	N/A

2.5 UTILITIES User Interface

2.5.1 Run an Import Ad-Hoc

Use Case	Run an Import Ad-Hoc
Description	The RECONCILOR wishes to re-run an import outside of the scheduled import.
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	The user has permissions the Import Queue Management section of Utilities.
Steps	1. In RECONCILOR the user navigates to the Utilities Tab and select 'Import Queue Management' 2. Filter the Job Queue by Selecting Import Names 3. Filter the date range to today's date 4. If the import is not queued in the list, move to the Imports sub tab 5. Select the Import you wish to run, and select 'Queue' at the end of the line 6. Go back to the Imports tab and you will now see the import in the queue The Import Queue Management screen shows the imports that have run within the date range specified by the. The user can specify the status of the import including the ability to look up imports which have failed.
Variations	Snowden Technologies can start the import
Post Conditions	Ensure the import has been successful by looking at the status of the import when it has completed.
Issues	

2.5.2 Haulage Management

Use Case	Review haulage records for a selected period
Description	Users may need to review haulage over a time period to validate the haulage or check for source or destination misallocation.
Actors	RECONCILOR Administrator RECONCILOR
Assumptions (Pre Conditions)	The user has permissions to access the Haulage Management section of Utilities.
Steps	1. In RECONCILOR the user navigates to the Utilities Tab and select 'Haulage Management' 2. Filter the date range to 1-Jun-08 to 30-Jun-08 3. View a selected haulage record
Variations	N/A
Post Conditions	N/A
Issues	N/A

2.5.3 Weightometer Sample Management

Use Case	Review weightometer data over a time period to validate the tonnes being imported.
Description	This set of screens show all valid weightometer records within a date range and weightometer and by weightomter or by sample.
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	The user has permissions to access the Weightometer Sample Management section of Utilities.
Steps	1. In RECONCILOR the user navigates to the Utilities Tab and select 'Weightometer Sample Management' 2. Filter the date range to 1-Jun-08 to 30-Jun-08 3. Display by sample 4. View the weightometer sample data records
Variations	
Post Conditions	
Issues	

2.5.4 Review a haulage error

Use Case	Review the outstanding haulage errors in a time ordered list of errors in order to diagnose haulage errors.
Description	To view and correct individual haulage errors which have been flagged by RECONCILOR.
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	The user has permission to the 'Haulage Correction and Name Resolution' screens under the Utilities tab.
Steps	1. In RECONCILOR the user navigates to the Utilities Tab and select 'Haulage Correction and Name Resolution' 2. The error will identify which part of the record needs to be corrected. Click 'Correct' on a record with an invalid source. 3. The user can select a new source which is valid and correct the truck value if required. Then click 'Correct Record'. The user can also decide to 'Delete Record' if the record is not required.
Variations	Step 1 above can be missed by pressing the 'Haulage Errors' notification at the top of the RECONCILOR pages. It will navigate you to the correct screen in the Utilities tab.
Post Conditions	The system will recalculate the records for the effected record source and destination that are corrected.
Issues	The record may re-appear in the Haulage Error list if another value is incorrect.

2.5.5　Name Resolution

Use Case	View, deactivate and delete name resolutions
Description	The purpose of these screens is to facilitate the linking of one name for a material point to another name. This can be done for a digblock, stockpile or crusher. Name resolutions can be set to apply for specific date ranges in time.
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	The user has permissions the 'Haulage Correction and Name Resolution' screen in the Utilities tab.
Steps	1. In RECONCILOR the user navigates to the Utilities Tab and select 'Haulage Correction and Name Resolution' 2. Select 'Name Resolution' from the Haulage Correction box. 3. Select 'Add Name Resolution' 4. Set Start Date and Start Shift and click 'Set Date' 5. Code – the code to be resolved 6. Description – the description of the name resolution 7. Resolve To – the matching Digblock, Stockpile or Crusher to the Code. 8. Click 'Save New Name Resolution'
Variations	Have the name corrected to match RECONCILOR in the original data source.
Post Conditions	Potentially less import errors.
Issues	N/A

2.5.6　Data Exceptions

Use Case	View all active data exceptions
Description	The purpose of these screens is to view data exceptions and the recommended solutions.
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	The user has permissions the 'Data Exception screen in the Utilities tab. The two primary data exceptions are negative balance stockpiles, and unbalanced plant input and outputs for date/shift combinations. Whenever a system exception has occurred it represents that there is a fundamental flaw in the data.
Steps	1. In RECONCILOR the user navigates to the Utilities Tab and select 'Data Exceptions' 2. Select Active Exceptions 3. Select the 'View' hyperlink to the Detail table and Suggested Resolutions table
Variations	Use the Data Exceptions hyperlink at the top of each RECONCILOR screen
Post Conditions	Potentially less data exceptions
Issues	N/A

2.5.7 Management of Referential Data

Use Case	Managing Ore Types tracked within the system, management of stockpile groups, management of Grades displayed in tables throughout the system, management of Location names, and column name management in blastblock and stockpiles screens.
Description	The user may wish to add, edit or delete referential data. For example the user may want to add a new ore type not currently be in the RECONCILOR system, change the display order of Grades, or change the location names displayed in the location
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	The user has permissions to access the Utilities tab.

Steps	1. In RECONCILOR the user navigates to the Utilities Tab and selects the relevant option from the Reference Data list:
	   a) Ore Type
	   b) Stockpile Groups
	   c) Grades
	   d) Locations
	   e) User Interface Listing
	2. Edits can be saved and viewed in the Blastblocks and Stockpiles screens

Variations	N/A

2.5.8 System Administration – Add a New User and assign a role

Use Case	Add a new user and assign a role
Description	A new user is required to use RECONCILOR.
Actors	RECONCILOR Administrator RECONCILOR
Assumptions (Pre Conditions)	The user has permissions to the User Management screens of the Utilities Tab.

Steps	1. In RECONCILOR the user navigates to the Utilities Tab and selects 'User Management' from the list.
	2. Select 'Add a User' from the User Menu box
	3. Enter:
	   a) Windows Username – Domain Name\ User name
	   b) First Name
	   c) Last Name
	   d) Email Address
	   e) Click 'Save New User'
	4. Find the newly created user in the User Management list and select hyperlink 'Roles'
	5. Select 'Modify Roles'
	6. From the list of roles pick the role best suited to the new user and click 'Edit Role Assignments'. If the role does not exist, a new role can be added, see 'Role Management'.
	7. Select:
	   a) Assignment Type: Windows Group or Windows User
	   b) Name – Select the newly created user.
	   c) Click 'Add Role Assignment'

Variations	N/A

Post Conditions	The newly created user can access RECONCILOR and see the tabs according to the Role he/she was assigned to.
Issues	N/A

2.5.9   Role Management

Use Case	Role Management
Description	The administrator would like to create a new group of users and hence create a new role.
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	The user has permissions the Role Management Screens of the Utilities tab.

Steps	1. In RECONCILOR the user navigates to the Utilities Tab and selects 'Role Management' from the list.
	2. Click 'Add a Role'
	3. Enter:
	   a) Role ID – role unique name
	   b) Description – full role description
	   c) Is Default Role – only one role can be selected to be the default.
	   d) Click 'Save New Role'
	4. To customize the role click 'Edit Security Options' hyperlink for the newly created role.
	   a) There are a number of permission levels available. Select the areas the users allocated to the role will be able to access. Click 'Save Role Options' once selections are complete.
	
	Only Administrators of the RECONCILOR system should create new users, edit existing users and delete users. Users can then be added to a number of user defined roles as well as standard roles included in RECONCILOR. Administrators will manage the access of users to the system through these screens. RECONCILOR will allow the Administrator to set up particular roles and assign access to functions within the system to these roles. This is important to ensure integrity of the data, the less people that have the ability to modify data, the more confidence you will place in it.

Variations	N/A
Post Conditions	User permissions are modified
Issues	N/A

2.5.10   Using the Audit Log Viewer

Use Case	Review who has been making changes to the RECONCILOR system and what changes they have made
Description	Used to track when a task was performed; by date, user or task
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	The user has permissions to the Audit Log Viewer in the Utilities tab.
Steps	1. In RECONCILOR the user navigates to the Utilities Tab and selects 'Audit Log Viewer' from the list. RECONCILOR tracks a large number of events within the system. The majority of these events are based around the manipulation of data by users or system processes. The Event viewer allows the administrator to review these events after they have occurred. The list can be filtered by a date range, event type group, event type and by user as required. Administrators may use this screen to review who has been making changes in the system and what changes they have made.
Variations	N/A
Post Conditions	N/A
Issues	N/A

2.5.11   Change system settings

Use Case	If the reporting services server is changed for any reason, the system settings will need to be changed to the new server name
Description	This screen allows users to change settings which are relevant at a system wide level. These include directory locations, server names, and logic settings.
Actors	RECONCILOR Administrator RECONCILOR
Assumptions (Pre Conditions)	The user has permissions to the System Settings in the Utilities tab.
Steps	1. In RECONCILOR the user navigates to the Utilities Tab and selects 'System Settings' from the list. 2. Select 'Edit' for Reporting_Services_Server 3. Change the Reporting Services server name 4. Save System Settings Edits
Variations	
Post Conditions	The system settings for the Reporting Services server will now be changed to the new name
Issues	All reports will also need to be moved to the new server

2.5.12 Custom Fields Configuration

Use Case	The user wishes to change the thresholds used the Home screen
Description	Throughout the user interface and reporting F1 F2 F3 are to have a standard set of colours used. This set of colours is to be maintainable through the utilities by an administrator.
Actors	RECONCILOR Administrator RECONCILOR
Assumptions (Pre Conditions)	The user has permissions to the Custom Fields Configuration in the Utilities tab.
Steps	1. In RECONCILOR the user navigates to the Utilities Tab and selects 'Custom Fields Configuration' from the list. 2. Enter the new Reporting Threshold value 3. Apply Threshold Settings
Variations	Selecting Remove Threshold Override will clear current values for tonnes and grades.
Post Conditions	The reporting thresholds used the Home screen will be changed
Issues	

3 RECONCILOR V6 SYSTEM ENHANCEMENT

3.1 HOMESCREEN User Interface

Use Case	The user wishes to Print the F1, F2 and F3 for Hub NJV for the month of April 2008.
Description	The Home tab is designed to show high level summary information to the user. The source of the data shown on this tab is driven purely by data calculated by RECONCILOR.
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	
Steps	1. In RECONCILOR select the Home tab 2. The WAIO F1,F2,F3 Reconciliation Home screen will open, select the month April 2008 3. Drill down from the WAIO home screen using the site map. 4. The home screen for NJV hub will be display the dashboard for the hub's F1, F2 and F3 for April 2008 5. Click the Print tab to print the home screen view containing the F1, F2, and F3 reconciliation charts
Variations	Select the Site Drilldown list to pick a site at the hub enabling the user to validate the F1 and F2 of the site for the given period At the bottom a group box of buttons will allow the user to open up the current and historical Action Register, Technical Summary and Reconciliation Summary Reports.
Post Conditions	
Issues	N/A

3.2 HOMESCREEN F1, F2, F3 Factors

Use Case	The user discovers the F3 factors are zero when the mouse if hovered over the 'Smilie'
Description	The F1, F2 and F3 factors for a site are tabled in the site Homescreen. When the user hovers over the 'Smilie', the factor value will be displayed
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	
Steps	1. In RECONCILOR select the Home tab 2. Select the Area C Hub from the WAIO homescreen map 3. Select 'Area C' Homescreen will open 4. Filter on the reporting date range e.g. April 2008 to May 2008 5. Hover the mouse over the F3 Tonnes and Grades 'Smilies' 6. Note the value is 0.00 7. In RECONCILOR select the Approval tab 8. Select F1F2F3 Validation and Approval link from the Depletion Menu 9. Select 'April 2008' and site Area C from the location filter 10. Locate the F3 - Ore Shipped / Mining Model Shipping Equivalent section of the report 11. Note the Ore Shipped row has zero tonnes and grades 12. This means that no Shipping data has been imported for the filtered date range

	13. Refer to Section 3.4 on viewing Shipping data in the Port Tab
Variations	N/A
Post Conditions	N/A
Issues	N/A

3.3   APPROVAL User Interface

3.3.1   Blastblock Monthly Validation and Approval

Use Case	The user wishes to validate monthly pit depletions by Blastblock in order to proceed with F1 approval.
Description	The Digblock Approval & Validation screen is used by BHPBIO to sign off against the depleted tonnes from each block mined in the period.
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	
Steps	1. In RECONCILOR select the Approval tab 2. Select the Digblock Approval link located in the Depletion Menu 3. Filter to the month in which the approvals are to be validated 4. Uncheck Limit Records box 5. Click the Refresh button 6. Displayed will be the Resource, Reserve and Grade Control model tonnes, followed by Hauled and Surveyed tonnes for each Blastblock which has had activity in the period specified as the filter 7. The user can then sign off against each Blastblock by clicking the data approved which will put their name against the Sign Off column
Variations	
Post Conditions	Approval of this information will lock the imports for this information preventing updates from being received. This is to ensure the data reported does not change after the reporting has been approved/signed. Approvals can be rolled back / undone (only by the system administrator), which will enable the system to collect data changes for the period again.
Issues	N/A

3.3.2   Approval of F1 by pit, F2 by site, and F3

Use Case	Sign off against the validation of F1, F2, F3 tonnes and grades and supporting data.
Description	The approval of the F1, F2, F3 tonnes and grades are the figures that make up the F1, F2, F3 factors.
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	F3 can only be approved by users assigned to a role with the WAIO admin permission classified as BHPBIO level, General HUB and Site users will not be able to approve these.
Steps	1. In RECONCILOR the user navigates to the Approvals Tab and select the Validation and Approval Screen 2. Enter the date range for the data to be validated and approved 3. Display the screen at Hub level by selecting the Location filter 4. The user can sign off each designation by clicking on the sign off check box. Although the F1, F2, and F3 are displayed at Hub level only the F3 is approved from this screen

	5. The users name will be displayed next to the sign off 6. Select a site from the Location filter 7. The user can validate and approve the F2 at site level and F1 at pit level 8. F1 can be approved when all the pits for the site and hub have been approved and blastblock validation has also been approved.
Variations	This screen is to be able to be displayed at a selected hub, site or pit level.
Post Conditions	
Issues	N/A

3.3.3   Approval of non ore movements by pit e.g. waste.

Use Case	Validate and approve data not covered in the F1F2F3 validation and approval
Description	This screen is used by BHPBIO to sign off against the validation of data. Each material movement not covered in the F1F2F3 validation and approval screen are an additional row
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	The user has permission to access the User Interface Listing on the Utilities page.
Steps	1. In RECONCILOR the user navigates to the Approvals Tab and select the Other Movements Approval Screen 2. Enter the date range for the data to be validated and approved 3. The user can then sign off each designation by clicking on the sign off check box. It will then sign off that item and display the users name next to the sign off.
Variations	The items to be signed off are dependent on the site configuration of non ore designations
Post Conditions	Approval of this information will lock the imports for this information preventing updates from being received. This is to ensure the data reported does not change after the reporting has been approved/signed. Approvals can be rolled back / undone (only by a user with system admin role), which will enable the system to collect data changes for the period again.
Issues	N/A

3.4 PORT User Interface

Use Case	View the data imported pertaining to the ports.
Description	This screen us used by BHPBIO to review the port inventories and shipping data imported into RECONCILOR.
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	N/A

Steps	1. In RECONCILOR the user navigates to the Port Tab
	 2. Enter the date range and HUB required
	 3. Two tables will be displayed
	    • Port Inventories shows the balance of tonnes at the port by hub and month
	
	    • Shipping Data imported into RECONCILOR, including the Date, Hub, Ship, Country, Customer, Product, Tonnes and Grades

Variations	N/A
Post Conditions	N/A
Issues	N/A

4 RECONCILOR V6 REPORTING

4.1 Standard RECONCILOR V6 Reporting

The following standard reports can be accessed through the Reports tab:
- Haulage Vs Plant Report
  - Provides a comparison of the haulage tonnes to the plant tonnes
- Monthly Material Movement Report
  - Provides a comparison of the tonnes removed for a Blastblock as estimated by Reserve or Grade Control and measured by Haulage and Survey. The results are grouped by Material Type.
- Stockpile Balance
  - The Stockpile Balance report lists the stockpile balances within a given date range, shift and stockpile.

4.2 BHP Billiton corporate reports

The following BHP Billiton corporate reports can also be accessed through the Reports tab:

4.2.1 Blast by Blast Reconciliation

- Provides a BHPBIO Corporate report on the Blast by Blast reconciliation
- The user selects the blast location using the location filter
- The header provides the dashboard for the F1 factors.
- Tables at the top of the report plot the models against material types and include:
  - Model Comparison
  - Tonnes difference
  - Model Recovery Percent
- Two bar charts plot GM vs BBM and MM vs BBM
- At the bottom of the report is the Grade Comparison section compares grade for each material designation against the models.
- Lastly a map of the Blastblock is shown with the F1 tonnes to show the location of the blast in the pit.
- The report can be exported to PDF

4.2.2 Grade Recovery Report

- BHPBIO Corporate report to display graphical representation of grade recovery
- The user selects the date range and period (quarterly or monthly)
- The Location filter which will allow users to drill down to the Hub, Site and Pit levels.
- The user may also filter on the Designation

4.2.3 F1F2F3 Reconciliation Report by Attribute Report

- Provides an in-depth look at the F1, F2, F3 Reconciliation
- User may filter for the required Attribute and required F1,F2,F3 or all factors
- Tables are displaying data for the selected attributes data from the Geology Model, Mining Model, Grade Control Model, Mine Production (Actuals) and Ore Shipped
- A line chart provides information on the F1, F2, and F3 over time with thresholds indicated is displayed the table.

4.2.4   F1F2F3 HUB Reconciliation Report

- o BHPBIO Corporate report providing a central view for the F1, F2 and F3 factors for the mine site.
- o The dashboard of the F1F2F3 like on the home screen is provided along with a breakdown of the actual figures and actual values.

4.2.5   Model Comparison Report

- o BHPBIO Corporate report to compare models in across the BHPBIO RECONCILOR instance.
- o The table displays the tonnes and grades predicted for each model and each material designation
- o The martial designations are dependent on the site
- o The user must select the location, date range and Date Breakdown (quarterly or monthly cycle) in which to report against

4.2.6   Movement Recovery Report

- o The report is produced to track the material moved over a time period and compare it to forecast
- o The user may filter on date range, quarterly or monthly cycle, location and designation

4.2.7   Recovery Analysis Report

- o The report is produced to track the material moved over a time period against models and designations

4.3   View a BHP Billiton Report

Use Case	View a report
Description	As described in Section 4.2, there are seven BHP Billiton Corporate reports in the Reports List available for all users to view and save or print
Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	All validation and approvals have been completed ensuring that the reported figures are valid.
Steps	1. In RECONCILOR the user navigates to the Reports Tab 2. Locate the report name and select the hyperlink for that report 3. Select the relevant filter options 4. Run report 5. Print or Save Report
Variations	The user may delete, update, add or group reports using the Report Management screen
Post Conditions	N/A
Issues	N/A

4.4 Report Management

Use Case	Edit a report

Description	• The report management screen allows the administrator to control which reports are displayed, the descriptions of the report, how the report is displayed and which group the report belong to.
	• The reports list tab displays a list of reports available to the users. The user can:
	   o Edit the report properties
	   o Delete the report
	   o Add a new report
	   o Upload an updated report
	   o Create new reports using the Ad-hoc report builder.

Actors	RECONCILOR User RECONCILOR
Assumptions (Pre Conditions)	N/A

Steps	6. In RECONCILOR the user navigates to the Reports Tab
	7. Locate the report name and select the edit hyperlink for that report
	8. The user can edit the following report details:
	   a. Report file name
	   b. The report description
	   c. The group the report fall in.
	9. Save Report Edits

Variations	The user may delete, update, add or group reports using the Report Management screen
Post Conditions	N/A
Issues	N/A