



# **Reconciliation Project**

# Business Rules & ETL Procedures Document

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## **Document Control**

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# **Contents**

Docum	Document Approval	
Document Control		з
Docum	ent Distribution	3
1 Pu	rpose of this Document	5
2 Bu	siness Requirements:	5
2.1	High Level Business Process Model-(Proposed)	5
3 Bu	siness Rules and Examples:	6
3.1		6
3.1	.2 File Number mappings	6
3.1	-0-1	6
3.1	.4 Files business object	7
3.1	.5 Listings business object	7
3.1	.6 Documents business object	7
3.1	.7 Orders business object	8
3.1		9
3.1	.9 Parties business object	9
3.2	Examples	9
3.2	.1 General	9
3.2	.2 Files business object	10
3.2	.3 Listings business object	10
3.2	.4 Documents business object	11
3.2		12
3.2		12
3.2	.7 Parties business object	12
4 Re	trieving the data from Casetrack System:	13
5 Re	trieving the data from ECF System:	17
6 En	tity Relationship Diagram	18



#### 1 Purpose of this Document

The purpose of this document is to define the business rules and the ETL procedures for the Reconciliation project. This document complements the Functional Specification and Technical Requirements document. The business rules as defined by Mark are also incorporated into this document.

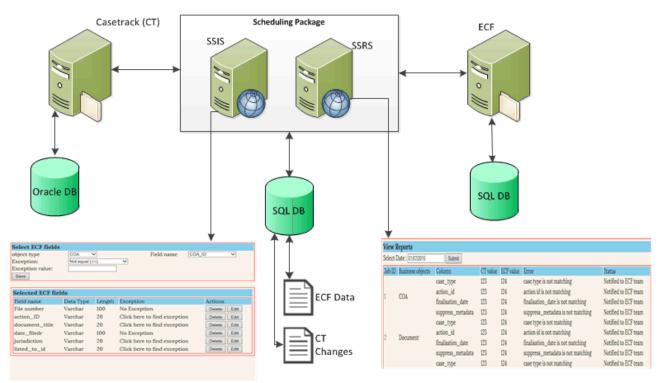
## 2 Business Requirements:

#### 2.1 High Level Business Process Model-(Proposed)

The proposed systems architecture involves the implementation of the SSIS –Integration and SSRS- Reporting package.

# Federal Court of Australia

#### **Proposed Systems Design**



#### Business Objects:

- 1) Files CT
- 2) Documents- CT
- 3) Listings CT
- 4) Orders ECF
- 5) COA- Cause of Action CT
- 6)Parties CT



#### 3 Business Rules and Examples:

Mark Bryant 14<sup>th</sup> August 2015 Business Rules Document

#### 3.1.1 General Rules

- Much of the Reconciliation Knowledge is encapsulated in the existing Casetrack Interim Reconciliation
   Extraction Scripts.
  - Whilst these scripts give some guidance on extracting data from Casetrack, they do NOT meet all the requirements for the permanent reconciliation product.
- The Casetrack data to be reconciled is limited to data related to a Court File that has the ECF Provisioned flag set.
- On the DMS/ECF side the following Sharepoint Lists are used for Interim Reconciliation. They were not built for the purpose of reconciliation, so they don't provide the exact set of data required both in data items covered and in records selected:
  - o ECF Index (for the Files business object)
  - Court Listing (for the Listings business object)
  - o Recent Documents (filtered for the Documents business object)
  - Recent Documents (filtered for the Orders business object)
- In DMS, Null values are usually stored as a hyphen i.e. "-".

#### 3.1.2 File Number mappings

- Casetrack file number is in the format (P) NSD1234/2015
- DMS number is in the format NSD1234/2015
- Therefore, ignore the Casetrack "(P)" prefix when mapping

#### 3.1.3 Registry Code mappings

Casetrack	DMS
ACD	ACT
ADG	ADEL
BRG	BRIS
BRM	BRIS
CAG	CANB
DNG	DARW
HBG	HOBART
LNG	HOBART



MLG	MELB
MLM	MELB
NSD	NSW
NTD	NT
PEG	PERTH
QUD	QLD
SAD	SA
SYG	SYD
TAD	TAS
VID	VIC
WAD	WA

#### 3.1.4 Files business object

- Match records on File Number
  - o Ignoring the Casetrack "(P)" prefix

#### 3.1.5 Listings business object

- Match records on the concatenation of COA Id + Listing Date Time + Courtroom
  - A forthcoming release will include Casetrack's Listing Id on newly created or updated DMS Listings
     but it will not be available on previous DMS Listings
- Exclude voided Listings
- Adjust listing time according to time zones (Casetrack is stored as Sydney Time, DMS is stored as local time)
  - o A forthcoming release will store Sydney Time in the DMS Listing
- Include Listings with no start time (contrary to the Interim Reconciliation Process)
- Ignore Sitting Registry differences where a Courtroom Resource has yet to be assigned and the Listing Date is more than three days in the future .

#### 3.1.6 Documents business object

- Match on Document Id
- Document Ids are in the format E123456
  - o Therefore pre-pend the prefix "E" on the Casetrack document id



- Exclude Voided documents
- Exclude Orders documents
- Exclude Correspondence documents
- Exclude documents with an ND display security code
- Include documents with no Document Id
- Exclude Casetrack documents with no Document Id that are Appeal Books (this rule may change in the future)
- Exclude Casetrack documents with no Document Id that are Tribunal Documents (this rule may change in the future)
- Exclude Casetrack documents with no Document Id that are FCC Court Books (this rule may change in the future)
- In Casetrack if the document is not the original version the Document Title shows "Amended document" whereas DMS shows the actual Document Title. A reliable method of deriving the actual Casetrack Document Title has not been found so far, but this could be revisited. Else, such Document Titles will have to be treated as an Acceptable Difference.
  - How will this be handled in the new Reconciliation product?
     The Action items have In Progress, Resolved and Ignore options as the status of the reconciliation.
     Once the ignore option is selected by the user the records will not be considered for the next day's reconciliation run. If the record details are changed in the future the ignore option is not considered and the records are reconciled again.

Include documents with COA Action Codes D-ADR or G-ADR (contrary to the Interim Reconciliation Process)

#### 3.1.7 Orders business object

- Since Orders originate in DMS, DMS needs to be the driver for this comparison.
- Match on Document Id
- Orders Document Ids are in the format 123456/DOC9 where 9 indicates the version number.



- Exclude documents that are not Orders (as indicated by the Store Type).
- Exclude previous versions of an Order since these are not available in Casetrack (as per the version number suffix of the Document Id).
- Exclude DMS Orders that are "NOT Entered" or work-in-progress.

#### 3.1.8 COAs business object

- (The interim reconciliation process does not reconcile COAs)
- Match on COA Id

#### 3.1.9 Parties business object

- (The interim reconciliation process does not reconcile Parties)
- Match on the concatenation of Party Id + COA Id
- Exclude non-default addresses
- It may be necessary to include or exclude Voided Parties
  - Whilst Casetrack does not store a Party void status, the existence of a Matter Role End Date may be a suitable surrogate.

#### 3.2 Examples

#### 3.2.1 General

- Below are some examples of discrepancies found in the Interim Reconciliation Process
  - o The first record in each comparison pair example is prefixed "L" for Left i.e. Casetrack
  - o The second record in each comparison pair example is prefixed "R" for Right i.e. DMS
- Key
  - x difference unlikely to represent a real problem difference requiring attention



#### 3.2.2 Files business object

#### • Example of File Docketed to mismatch:

- o L54 SYG1548/2015, G-MIG, John Smith v Minister for Immigration and Border Protection & Anor, 9/06/2015, SYD, FCC, SYD, FALSE,
- o R54 SYG1548/2015, G-MIG, John Smith v Minister for Immigration and Border Protection & Anor, 9/06/2015, SYD, FCC, SYD, JUDGE STREET; JUDGE STREET, FALSE,

#### 3.2.3 Listings business object

#### • Example of Listings Time mismatch:

- o L4 ADG103/2015,3720546,24/09/2015 10:15, Hearing, Judge Cameron, CAM4448316; ADEL, FALSE, FALSE, FALSE, ADG COURT 2
- o R4 ADG103/2015,3720546,24/09/2015 9:45, Hearing, JUDGE CAMERON, CAM4448316;, ADEL, FALSE, FALSE, FALSE, ADG COURT 2

#### • Example of Listings Sitting Registry mismatch:

- o L105 NSD469/2015,3723659,9/06/2015 9:30,Hearing,Justice Beach,BEA4636161;,VIC,FALSE,FALSE,FALSE,-
- o R105 NSD469/2015,3723659,9/06/2015 9:30,Hearing,JUSTICE BEACH,BEA4636161;,NSW,FALSE,FALSE,FALSE,-

#### • Example of Listings Video Conference flag mismatch:

- o L14 DNG37/2015,3729810,21/08/2015 10:30,First Court Date,Registrar Bochner,BOC4522168;,ADEL,TRUE,FALSE,FALSE,SA COURT 3 ON LEVEL 5
- o R15 DNG37/2015,3729810,21/08/2015 10:30,First Court Date,REGISTRAR BOCHNER,BOC4522168;,ADEL,FALSE,FALSE,FALSE,SA COURT 3 ON LEVEL 5

#### Example of missing Reason for Listing:

- o L38 MLG2305/2014,3711096,28/07/2015 11:30,,Judge Mcguire,MCG4598562;,MELB,FALSE,FALSE,FALSE,VIC - COURT 6D LEVEL 6
- o R39 MLG2305/2014,3711096,28/07/2015 11:30,-,JUDGE MCGUIRE,MCG4598562;,MELB,FALSE,FALSE,FALSE,VIC COURT 6D LEVEL 6



#### 3.2.4 Documents business object

- Example of Document Title not matching on an amended version of a document although there may not be any real problem with document metadata:
  - o L15 E360800, SYG1332/2015, 3/07/2015 11:49, Amended document, DEPUTY COMMISSIONER OF TAXATION, FALSE
  - o R17 E360800, SYG1332/2015, 3/07/2015 11:49, Creditors Petition, DEPUTY COMMISSIONER OF TAXATION, FALSE
- Examples of Document Filed By mismatches:

(i)

- o L43 E361043, SYG1865/2015, 3/07/2015 15:35, Application Migration, FALSE
- o R45 E361043, SYG1865/2015, 3/07/2015 15:35, Application Migration, JOHN SMITH, FALSE

(ii)

- o L93 E361347,SYG1853/2015,6/07/2015 11:43,Consent to act as trustee, WORKERS COMPENSATION NOMINAL INSURER ABN 83 564 379 108,FALSE
- o R95 E361347,SYG1853/2015,6/07/2015 11:43,Consent to act as trustee, WORKERS COMPENSATION NOMINAL INSURER,FALSE

(iii)

- o L151 E361432, SAD62/2015, 6/07/2015 9:44, Affidavit of Service Form 59 Rule 29.02(1), ALLAN WILLIAM DOUGLASS GRAY, FALSE
- o R153 E361432, SAD62/2015, 6/07/2015 9:44, Affidavit of Service Form 59 Rule 29.02(1), Allan Gray, FALSE

(iv)

- o L8 E360068, SAD203/2015, 2/07/2015 9:58, Originating process (Rule 2.2): Federal Court (Corporations) Rules 2000 form 2, RICHARD ERNEST AURICHT AS LIQUIDATOR OF ULTIMATE AIR CONTROL PTY LTD (IN LIQUIDATION) ACN 091 617 846, FALSE
- o R8 E360068, SAD203/2015, 2/07/2015 9:58, Originating process (Rule



2.2): Federal Court (Corporations) Rules 2000 form 2, Richard Ernest Auricht, FALSE

(iv)

- o L353 E361222, PEG301/2015, 3/07/2015 14:58, Application Migration, AZZ21, FALSE
- o R356 E361222, PEG301/2015, 3/07/2015 14:58, Application Migration, John Smith, FALSE
- Example of a Document without a Document Id indicating that it was created (incorrectly) in Casetrack
  - o L375 ,BRG426/2015,3/07/2015 14:00,Sequestration Order,,FALSE o R <no record>

#### 3.2.5 Orders business object

Example of an Order without a Document Id indicating that it was created (incorrectly) in Casetrack

```
o L123  ,SYG1004/2015,3/07/2015 9:30,Order,Judge Altobelli,FALSE
o R      <no record>
```

#### 3.2.6 COAs business object

• (Not part of the Interim Reconciliation Process)

#### 3.2.7 Parties business object

• (Not part of the Interim Reconciliation Process)



# 4 Retrieving the data from Casetrack System:

- The data retrieval will involve the following steps:
  - a) The data is retrieved by connecting to Oracle Database and executing a SQL query. The example SQL query as provided by Mark used for retrieval of data is as follows:

```
SELECT file_number
                           ||','||
      coa_id
                     ||','||
      listing_datetime ||','||
      reason_for_listing ||','||
      listed_to
                     ||','||
      listed_to_id
                      ||','||
      sitting_registry ||','||
      video_conference ||','||
      not_before
                       ||','||
      phone
                      ||','||
      courtroom
  FROM
(SELECT (SELECT SUBSTR (mfn.file_no, 4)
        FROM ctrack.fct_matter_file_no mfn
        WHERE mfn.mat_id = coa.file_mat_id)
        file_number,
      coa.id coa_id,
      TO_CHAR (
        TO_DATE (
          TO_CHAR (sit.start_date, 'DD/MM/YYYY') || ' '
          || LTRIM(TO_CHAR (TRUNC (NVL (sta.rfl_start_time, 0) / 100),
                     '00'))
          || ':'
          || LTRIM (
              TO_CHAR (MOD (NVL (sta.rfl_start_time, 0), 100), '00')
            ),
          'DD/MM/YYYY HH24:MI'
        ),
        'fmDD/fmMM/YYYY fmHH24:fmMI'
        listing_datetime,
      (SELECT rfl.rfl_description
        FROM ctrack.fct_rfl_types rfl
       WHERE rfl.rfl_id = sta.rfl_id
            AND SYSDATE BETWEEN rfl.rfl_start_date
                      AND NVL (rfl.rfl_end_date, SYSDATE)
            AND rfl.court_class = SUBSTR (sit.stp_id, 1, 1))
```



```
reason_for_listing,
      (SELECT LISTAGG (pt.display_title, ';') WITHIN GROUP (ORDER BY rol.pat_judge_seniority_order NULLS
LAST)
          FROM ctrack.crt_parties pt,
              ctrack.crt_role_types rlt,
              ctrack.crt_roles rol,
              ctrack.gis_sitting_roles sro
                      sro.sit_id = sit.id
              AND sro.rol_id = rol.id
              AND rol.rlt_id = rlt.id
              AND rlt.presiding_authority = 'Y'
              AND rol.pt_id = pt.pt_id
       GROUP BY sro.sit_id)
        listed to,
      (SELECT LISTAGG (pt.pt_id, ';') WITHIN GROUP (ORDER BY rol.pat_judge_seniority_order NULLS LAST)
          FROM ctrack.crt_parties pt,
              ctrack.crt_role_types rlt,
              ctrack.crt_roles rol,
              ctrack.gis_sitting_roles sro
         WHERE
                      sro.sit_id = sit.id
              AND sro.rol_id = rol.id
              AND rol.rlt_id = \underline{\text{rlt.id}}
              AND rlt.presiding_authority = 'Y'
              AND rol.pt_id = pt.pt_id
       GROUP BY sro.sit id)
        listed_to_id,
      (SELECT DECODE (pt.short_code,
                  'ACD', 'ACT',
                  'ADG', 'ADEL',
                  'BRG', 'BRIS',
                  'CAG', 'CANB',
                  'DNG', 'DARW',
                  'HBG', 'HOBART',
                  'LNG', pt.short_code,
                  'MLG', 'MELB',
                  'NSD', 'NSW',
                  'NTD', 'NT',
                  'PEG', 'PERTH',
                  'QUD', 'QLD',
                  'SAD', 'SA',
                  'SYG', 'SYD',
                  'TAD', 'TAS',
```

```
'VID', 'VIC',
              'WAD', 'WA',
              pt.short_code)
     FROM ctrack.crt_parties pt
     WHERE pt.pt_id = sit.pt_id)
     sitting_registry,
    DECODE ((SELECT nt.nt_id
          FROM ctrack.gis_notes nt,
              ctrack.fct_note_links nl,
              ctrack.gis_process_occurrences proe
         WHERE
                      proe.id = pro.id
              AND proe.id = nl.pro_id
              AND nl.nt_id = nt.nt_id
              AND nt.dc_category = 'ELECTRONIC'
              AND SYSDATE < NVL (nt.effective_end_date, SYSDATE + 1)
              AND ROWNUM < 2),
        NULL, 'FALSE',
        'TRUE')
     video_conference,
    DECODE (NVL (sta.rfl_not_before_start_time, 'N'),
        'N', 'FALSE',
        'Y', 'TRUE',
        'UNKNOWN')
     not before,
    DECODE ((SELECT nt.nt_id
          FROM ctrack.gis_notes nt,
              ctrack.fct_note_links nl,
              ctrack.gis_process_occurrences prop
         WHERE
                      prop.id = pro.id
              AND prop.id = nl.pro_id
              AND nl.nt_id = nt.nt_id
              AND nt.dc_category = 'PHONE'
              AND SYSDATE < NVL (nt.effective_end_date, SYSDATE + 1)
              AND ROWNUM < 2),
        NULL, 'FALSE',
        'TRUE')
     phone,
    NVL (phr.resource_name, '-') courtroom
FROM ctrack.crt_physical_resources phr,
    ctrack.gis_sitting_resources str,
    ctrack.gis_sittings sit,
    ctrack.gis_sitting_allocations sta,
    ctrack.gis_process_occurrences pro,
```



```
ctrack.gis_matters coa
 WHERE coa.mat_type = 'C'
       AND EXISTS
          (SELECT 1
            FROM ctn.tbl_ecf_mapping tem, ctrack.gis_matters fil
            WHERE
                        fil.id = coa.file_mat_id
                 AND fil.id = tem.file_id
                AND fil.mat_type = 'F'
                AND tem.ecf_provisioned = 'Y')
       AND coa.id = pro.mat_id
       AND pro.date_created >= TRUNC(SYSDATE)
       AND pro.id = sta.pro_id
       AND NVL(sta.rfl_start_time, 0) <> 0
       AND sta.sit_id = sit.id
       AND \underline{sit.id} = str.sit\_id(+)
       AND str.phr_id = phr.id(+)
ORDER BY 1,
       coa.id,
       sit.start_date,
       sta.rfl_start_time,
       NVL (phr.resource_name, '-')
)
```

- b) Define column properties in the Column configuration and mapping details of the business object in Casetrack.
- c) Refer the system configuration table for system control and master details of the source and target systems based on the records created and last modified date.
- d) Check and compare the Casetrack Audit table for changes in records or new records that are generated.

  Those data items that are not currently audited will be reconciled in an ad-hoc basis based on the file number which is unique for all Business Objects.
- e) Read the records from Casetrack by using the SQL and PLSQL scripts for all the columns of business object for that have been changed.
- f) Create a CSV output file into the specified folder as defined in the System Configuration table. Output data is stored as CSV file. This file could be used for future reference as data in the database will be truncated after completion of reconciliation. Data that has differences only will be stored in the database.
- g) To read the CSV file call the SSIS service and store the records into the staging table.
- h) The exception records and the errors are raised in the logs and escalated to the teams through an email notification.



# 5 Retrieving the data from ECF System:

The data retrieval will involve the following steps:

- a) The data is retrieved using the REST services or standard web services from ECF.
- b) The Web services link used for data retrieval is: http:// tstshp1v:78/ECFReconciliationAPIs.asmx
- c) The REST Services links used for data retrieval are:

http://testspwi1v:2014/\_vti\_bin/listdata.svc/ECFDocuments
http://testspwi1v:2014/\_vti\_bin/listdata.svc/FinaliseECF
http://testspwi1v:2014/\_vti\_bin/listdata.svc/ECFListings
http://testspwi1v:2014/\_vti\_bin/listdata.svc/Parties
http://testspwi1v:2014/efiles/2015/NSD1152015/\_vti\_bin/listdata.svc/CoA

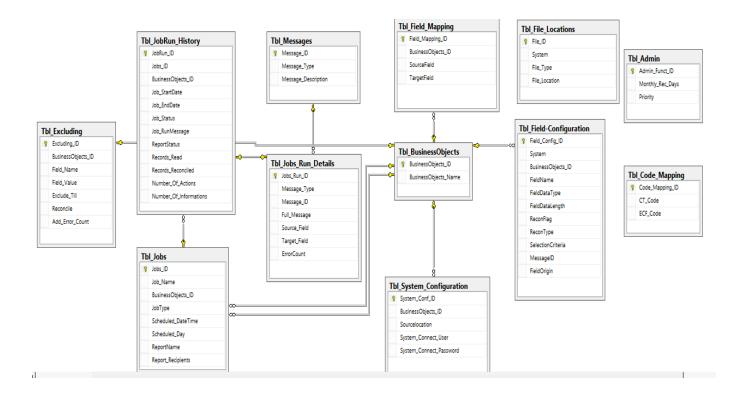
- d) Define the column properties and mapping details of the business object with Casetrack and DMS
- e) Refer the system configuration table for system control as well as source and target system master details based on the records created and last modified date.
- f) Check and compare the Casetrack Audit table and DMS for any changes or new records that are generated. Orders Business Object source is from DMS and this compared with the Casetrack details that are available. For all other business objects the source of the file is from Casetrack, hence the data is reconciled with comparison of Casetrack with DMS.
- g) Read the records from DMS using the ECF Reconciliation web service for changed and new file numbers.

  The other types of DMS extraction methods that are considered are:
  - Using purpose built web services for each business object
  - Using Sharepoint in- built web services CAML queries called from .Net in the reconciliation platform.
- h) Create a CSV output file into the specified folder as defined in the System Configuration table.
- i) Call the SSIS service to read the CSV file and store the records into the staging table.
- j) The exception records and the errors are raised in the logs and are escalated to the teams through an email notification.



# 6 Entity Relationship Diagram

• Reconciliation Database





#### • User Management Database

