



DecisionPoint 3

Managing HEM in DecisionPoint 3

Managing HEM values in DecisionPoint 3

DecisionPoint 3 Product Team

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Document Revision History

Table 1. Document Revision History

Doc No.	Release	Date	Comments
1.3	1.31.0-1.34.0	27/6/2019	Corrections and updates.
1.2	1.31.0-1.33.1	5/3/2019	Added Tax Brackets.
1.1	1.31.0-1.33.1	30/3/2018	Corrections.
1.0	1.31.0	9/3/2018	Initial release.

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1. Introduction

The purpose of this document is to provide instruction on how to manage HEM values for use in Equifax's Consumer, Mortgage and Credit Cards solutions.

The Household Expenditure Measure (HEM) is a model that reflects a modest level of household expenditure for various types of families across Australia.

HEM has become an important benchmark used by lenders to calculate the maximum amount a lender is able to borrow based on their income and expenditure.

HEM is developed by Melbourne Institute, who publish quarterly updates to the HEM data to reflect changes in household borrowing power, as affected by macro economic conditions. As such, this data must be uploaded to your DecisionPoint 3 deployment so that your decisioning strategy stays current with these changes.

Subscription to HEM data is managed and provided by RFi Group.

This guide demonstrates how to prepare the quarterly HEM data and convert it from its raw source into a format that is compatible with the Equifax Consumer Term, Mortgage and Credit Cards Solutions.

1.1. Requirements

The implementation of HEM in this guide requires Look-up Tables support. This feature was introduced to DecisionPoint 3 in core release 1.31.0 and to Equifax solutions in Artefacts release 1.31 V1. Your deployment must meet, or exceed, these requirements to use HEM in the manner described in this document.

1.2. About this Document

This document is a subset of the *BSM User Guide* prepared for users of Equifax hosted deployments where system administrators have limited access to BSM functionality. It is primarily aimed for users of Equifax' Consumer Term, Mortgage and Credit Cards solutions.

1.2.1. Conventions in this document

Refer to Document conventions on page 10.

1.2.2. DecisionPoint 3 documentation suite

This document is part of the DecisionPoint 3 documentation suite for the DecisionPoint 3 release 1.34.0.

For a list of documents related to, or referenced within this guide, please refer to Related Documents on page 10.

1.3. Getting Further Help

If you require further help, or have any queries about DecisionPoint 3, BSM or this document, please contact your Equifax representative or visit <http://www.Equifax.com.au/contact-us>.

2. Managing HEM

2.1. Acquiring quarterly HEM data

HEM data is released quarterly by the Melbourne Institute. The update is packaged as a zip file containing a PDF describing in detail any changes to the model or the data within. Also included in the package is the data itself in Microsoft Excel format. There are two Excel files: smoothed, and smoothed per child accounting.



HEM data is not provided by Equifax. As such, the onus is on individual subscribers to acquire HEM data for use in their solutions.

Use the smoothed file to model the overall expenditure of a household. This file is supported for use with DecisionPoint 3.

The *smoothed per child file* allows you to derive a very rough estimate on a household's expenditure on its children, however it's based on the assumption that a household spends the same net amount on each subsequent child. Note, this file is **not supported** for use with DecisionPoint 3.



For any questions or concerns relating to HEM quarterly data, please contact RFI Group or Melbourne Institute directly.

2.2. Converting HEM data

To help you convert quarterly HEM data in a format compatible with the Look-up Tables configured in Equifax' solutions, we provide a HEM conversion utility. This utility is made available as a Microsoft Excel document.



The first time you acquire your HEM data from RFI as part of your solution, Equifax can provide you with the initial setup configuration. After this point, you are responsible for managing and converting any updates to your HEM data as issued by RFI.

To convert the HEM dataset to CSV:

1. Open the HEM_DropInTables_plus_CameoFacility_YYYYQQ_smoothed.xlsx file.
2. Open the Tax Bracket worksheet and ensure the listed tax brackets are correct.

	A	B	C	D	E	F	G	H	I
1	Tax Table								
2									
3	Upper Limit	Tax Paid	Tax Percentage						
4	\$0	\$0	\$0.00						
5	\$18,200	\$0	\$0.19						
6	\$37,000	\$3,572	\$0.33						
7	\$90,000	\$20,797	\$0.37						
8	\$180,000	\$54,232	\$0.45						
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									

Figure 1. Tax brackets

3. Select all cells in the Drop In Tables worksheet and copy & paste into the HEM Sheet worksheet in this file.

"HEM Table 1" equivalent BASED ON RAW DATA Smoothed HEM				"HEM Table 1" equivalent: by Geographic Location BASED ON PREDICTED VALUES FROM THE QUANTILE REGRESSION NEW FROM 2012Q4: Smoothed HEM										
WORKFORCE STATUS HEAD NOT USED	Housing \$ per week	than Housing \$ per		Australia	Sydney	Balance of NSW	Melbourne	VIC	Brisbane	QLD	Adelaide	SA	Perth	WA
Couple	-	\$ 543	Couple	\$ 546	####	\$ 549	\$ 545	\$ 566	\$ 541	\$ 532	\$ 556	\$ 545	###	\$ 524
Couple with 1 child	-	\$ 675	Couple with 1 child	\$ 676	####	\$ 678	\$ 675	\$ 695	\$ 670	\$ 652	\$ 686	\$ 674	###	\$ 654
Couple with 2 children	-	\$ 773	Couple with 2 children	\$ 785	####	\$ 808	\$ 805	\$ 825	\$ 800	\$ 792	\$ 816	\$ 805	###	\$ 764
Couple with 3 or more children	-	\$ 842	Couple with 3 or more children	\$ 850	####	\$ 854	\$ 850	\$ 870	\$ 845	\$ 837	\$ 861	\$ 850	###	\$ 829
Single person	-	\$ 277	Single person	\$ 290	####	\$ 292	\$ 289	\$ 309	\$ 284	\$ 276	\$ 300	\$ 288	###	\$ 267
Single parent with 1 child	-	\$ 364	Single parent with 1 child	\$ 360	####	\$ 363	\$ 359	\$ 380	\$ 354	\$ 346	\$ 370	\$ 353	###	\$ 338
Single parent with 2 children	-	\$ 411	Single parent with 2 children	\$ 443	####	\$ 445	\$ 442	\$ 462	\$ 437	\$ 429	\$ 452	\$ 441	###	\$ 420
Single parent with 3 or more children	-	\$ 498	Single parent with 3 or more children	\$ 476	####	\$ 479	\$ 476	\$ 497	\$ 471	\$ 463	\$ 487	\$ 476	###	\$ 455

Figure 2. HEM worksheet

4. Go to the Tables worksheet. Update the HEM Version cell highlighted in red.

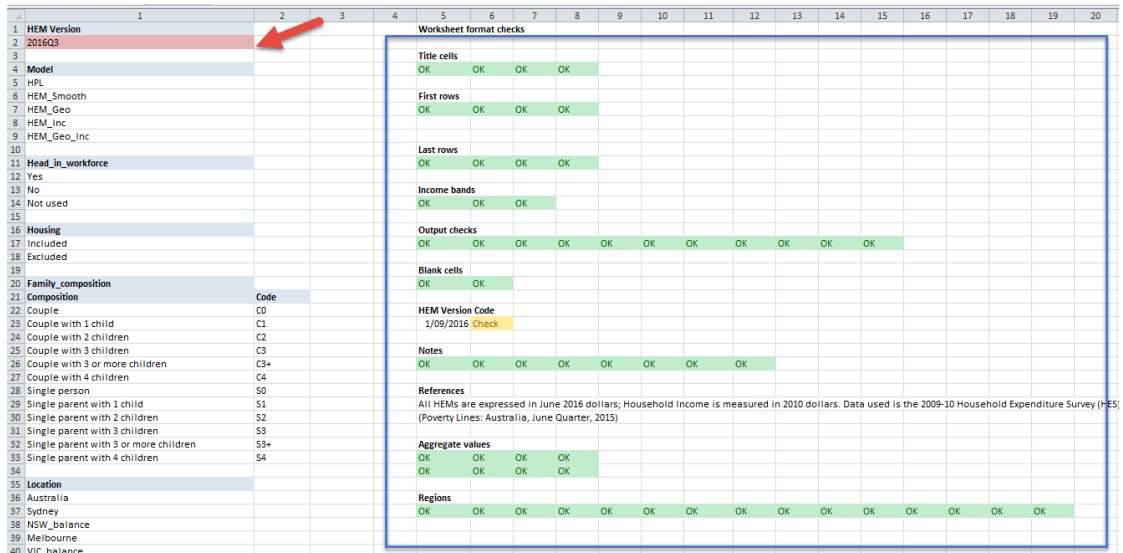


Figure 3. Tables worksheet show HEM version to update

5. Check that the section on Worksheet format checks shows all relevant cells as being OK (Green)

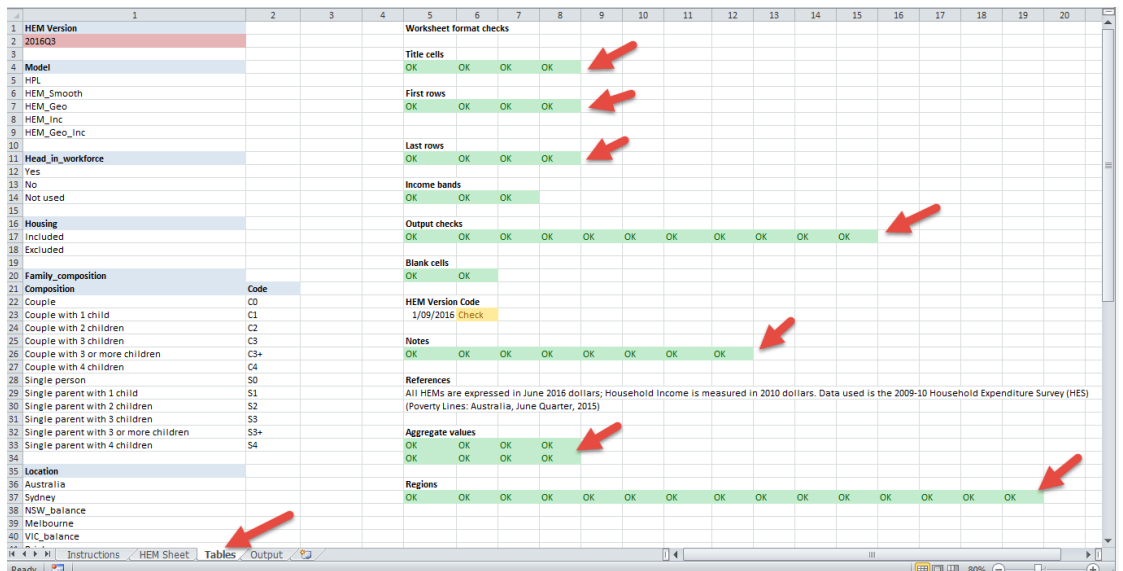


Figure 4. HEM worksheet showing valid data

6. If any of the worksheet format checks show "Error" or "Check" this means that there is a difference in format or content in the pasted data.
 - a. If this is the case, unhide the *HEM Sheet Master* worksheet to reconcile and correct any differences.
7. Once all is data is correct, review the Output worksheet. If the data has been correctly formatted, and there are no new errors, save the worksheet as HEM_Upload.csv to a location on your computer.

The CSV file is now ready to be imported in BSM.


2.3. Uploading HEM data to BSM

Once you have converted and verified the data, you can upload the resulting CSV file into BSM's Look-up Table page.




If you are overriding previous values, you must first delete them. The steps to upload and delete values are displayed below.

To upload a lookup table data set:

1. Log into BSM as a business user with the appropriate role for the business service.
2. Click the Service Configuration option under the *Management Console* menu and then click *Lookup Tables*.
3. Select the required business service using the dropdown box.
4. Click the upload icon, .
5. In the file browser, locate the CSV file you wish to upload.

To clear (delete) a lookup table dataset:

1. Log into BSM as a business user with the appropriate role for the business service.
2. Click the Service Configuration option under the *Management Console* menu and then click *Lookup Tables*.
3. Select the required business service using the dropdown box.
4. Click the trash icon,  and when prompted, confirm your action.

Appendix

Appendix A: Related Documents

This appendix lists other DecisionPoint 3 Documents related to this document.

Table 2. Related Documents


Title	Description
<i>DecisionPoint 3 Release Notes 1.34.0</i>	Provides a comprehensive list of new features, enhancements and fixes for DecisionPoint 3 release 1.34.0.
<i>BSM User Guide</i>	Provides a comprehensive guide to using the BSM web admin console.
<i>BSM Connectivity Guide</i>	Provides a comprehensive guide to using the DecisionPoint 3 SOAP-based API.
<i>BSM Troubleshooting Guide</i>	Provides an overview of how to detect, investigate and resolve problems in BSM. Includes a list of commonly occurring problems and provides workarounds and solutions.
<i>Studio User Guide</i>	Provides a comprehensive user guide to DecisionPoint 3 Studio. Of relevant to HEM, the guide covers roles, and adding and configuring Look-up Table objects to a solution.

Appendix B: Document conventions

This section details the typographic and stylistic conventions used throughout this document.

References

Following is a list of how internal and external references are displayed throughout this and other DecisionPoint 3 documents:

- Internal cross references are not styled however they will always have a page reference following them.
In the PDF versions of this document, internal cross references are hyperlinked.
- External cross references to websites or other online documents are underlined and are marked with a  icon.

In the PDF versions of this document, external cross references are hyperlinked. If used, you will find a complete list of links in Related Documents on page 10.

Interface Elements

Following is a list of how user interface elements are depicted and used throughout this and other DecisionPoint 3 documents

- Buttons (including radio buttons), drop-down boxes and any other element that you click is displayed in **bold type**
- Titles for windows, dialogue boxes and pages are displayed in *italic type*
- Properties in configuration files are displayed in **bold type**; their associated values are displayed in "quotation marks"
- File names are displayed in **bold type**

Flagged information

This document uses visual flags to highlight important and critical information. Examples are provided below.



This is a note, it contains non-critical but useful information. It is recommended that you adhere to all notes in the document.



This is a tip, it contains information about helpful tools and utilities or ways to speed up your productivity when installing, managing or using DecisionPoint 3 products.



This flags important information that is critical to DecisionPoint 3 software. It is highly recommended that you adhere to all important information in the document.



This is a warning, failure to acknowledge and follow this information may adversely affect your DecisionPoint 3 product and/or its performance. It is strongly recommended that you adhere to all warnings in the document.

Examples

Examples can include extracts of referenced files (such as configuration files or XML documents) or applications commands executed on the command line. Examples are set in mono-spaced type (to aid copying text) and are boxed to separate them from the main document content. The following are examples:

```
$ this is an example of a command
```

This is an example of a reference XML document.

```
<root_element>
  <sub_element>Nested Element 1</sub_element>
  <sub_element>Nested Element 2</sub_element>
  <sub_element>Nested Element 3</sub_element>
</root_element>
```

XML

As in the above example, where possible, syntax highlighting is used to make the source easier to read.

Directories and paths

All DecisionPoint 3 documents use the term **directory** not folder.

Where paths are illustrated they use the Linux convention of navigating the hierarchy with a forward slash (/) unless otherwise specified.

Terms and abbreviations

See Glossary on page 12 for a list of terms and abbreviations used throughout this and other DecisionPoint 3 documents.

Usage and style

This document is written in Australian English. Spelling, dates, and units of measure adhere to the conventions established in the following publications unless otherwise noted:

- *Style Manual: For Authors, Editors and Printers 6th edn.* John Wiley and Sons, 2002.
- *Macquarie Dictionary 7th edn.*

Appendix C: Glossary

AD

Active Directory. The default directory service for Microsoft Windows Server.

AWS

Amazon Web Services. A cloud computing platform used by Equifax as a hosting platform for some DecisionPoint 3 deployments.

Business Service Manager

The Business Service Manager (BSM) is the runtime engine which has responsibility for executing the Business Services (packages of the path and its data structures) as web services to make enquiries to the credit bureaux (where required) and send updated information back to the business systems. It is a Java enterprise web server.

CN

LDAP Common Name.

DC

LDAP Domain Component.

DataLink Manager

DLM is a DecisionPoint 3 component that gathers, interacts with, and derives customer information from internal and external data sources and credit bureaux.

Decision Manager

Decision Manager is a DecisionPoint 3 component used to model and process credit risk decisions based on data provided by applicants and data sources, such as credit bureaux.

DLA

Designated Lending Authority. The ability to define and limit a user's ability to progress applications based on the authority delegated to their role.
Introduced in release 1.29.0.

DN

LDAP Distinguished Name.

FSD

Functional Specification Document. A document that describes in detail the function and specifications of a DecisionPoint 3 solution. It includes the request and response structure, list of validation rules, list of bureau calls and other important information.

GWT

Google Web Toolkit.

HTTPS

Secured Hypertext Transfer Protocol.

IE

Microsoft® Internet Explorer®.

JDBC

Java Database Connectivity. An API that allows Java applications such as DecisionPoint 3 to connect to databases.

JSON

JavaScript Object Notation. A lightweight data description format typically used to exchange data via web services.

JSW

Java Service Wrapper.

LDAP

Lightweight Directory Access Protocol. An open application layer protocol for accessing and maintaining directory services over a network.

MASSL

Mutual Authentication over SSL. (See also *SSL*)

MTOM

Message Transmission Optimization Mechanism is a method of sending binary data to and from Web Services.

Nonce

In cryptography, a number that can only be used once. Similar to a one-time password.

OU

LDAP Organisational Unit.

Process Manager

Process Manager is a DecisionPoint 3 component that provides the link between DataLink Manager and Decision Manager. Process manager also provides logical functions and access to special objects, such as document and notification templates.

RDBMS

Relational Database Management System.

Repo

Repository. Repositories are used throughout DecisionPoint 3 to store files under revision management. (See *SVN*)

RHEL

Red Hat® Enterprise Linux®.

Service Catalogue

A Java Package containing the Connectors and Data Definitions used by DecisionPoint 3 to connector to credit bureaux. Service Catalogues are deployed on BSM and Solution Server.

SOAP

Simple Object Access Protocol. An XML-based format for exchanging data via web services.

Solution Server

Formerly called Studio Manager, Solution Server is the part of DecisionPoint 3 responsible for storing, versioning and providing access to Solutions under development. Studio must have access to a working Solution Server.

SSL

Secure Sockets Layer, a cryptographic protocol used to secure communications over a network. (See also *MASSL* and *TLS*)

Studio

DecisionPoint 3 Studio is a graphical program for Microsoft Windows designed to allow business users to create Solutions based on credit risk strategies which interact with external credit bureaux and internal systems, and model customer information.

SVN

Apache Subversion Repository (see also *Repo*).

TLS

Transport Layer Security, the successor to SSL.

Web Service

A method of communication between computer applications over the world wide web using a standard protocol such as SOAP, REST or JSON-RPC.

WSDL

Web Service Description Language, an XML-based language to describe the functionality provided by a web service.

XSD

XML Schema Definition.