



Informatica®

10.1

Mapping Specification Getting Started Guide

This software and documentation contain proprietary information of Informatica LLC and are provided under a license agreement containing restrictions on use and disclosure and are also protected by copyright law. Reverse engineering of the software is prohibited. No part of this document may be reproduced or transmitted in any form, by any means (electronic, photocopying, recording or otherwise) without prior consent of Informatica LLC. This Software may be protected by U.S. and/or international Patents and other Patents Pending.

Use, duplication, or disclosure of the Software by the U.S. Government is subject to the restrictions set forth in the applicable software license agreement and as provided in DFARS 227.7202-1(a) and 227.7702-3(a) (1995), DFARS 252.227-7013(1)(ii) (OCT 1988), FAR 12.212(a) (1995), FAR 52.227-19, or FAR 52.227-14 (ALT III), as applicable.

The information in this product or documentation is subject to change without notice. If you find any problems in this product or documentation, please report them to us in writing.

Informatica, Informatica Platform, Informatica Data Services, PowerCenter, PowerCenterRT, PowerCenter Connect, PowerCenter Data Analyzer, PowerExchange, PowerMart, Metadata Manager, Informatica Data Quality, Informatica Data Explorer, Informatica B2B Data Transformation, Informatica B2B Data Exchange Informatica On Demand, Informatica Identity Resolution, Informatica Application Information Lifecycle Management, Informatica Complex Event Processing, Ultra Messaging, Informatica Master Data Management, and Live Data Map are trademarks or registered trademarks of Informatica LLC in the United States and in jurisdictions throughout the world. All other company and product names may be trade names or trademarks of their respective owners.

Portions of this software and/or documentation are subject to copyright held by third parties, including without limitation: Copyright DataDirect Technologies. All rights reserved. Copyright © Sun Microsystems. All rights reserved. Copyright © RSA Security Inc. All Rights Reserved. Copyright © Ordinal Technology Corp. All rights reserved. Copyright © Aandacht c.v. All rights reserved. Copyright Genivia, Inc. All rights reserved. Copyright Isomorphic Software. All rights reserved. Copyright © Meta Integration Technology, Inc. All rights reserved. Copyright © Intalio. All rights reserved. Copyright © Oracle. All rights reserved. Copyright © Adobe Systems Incorporated. All rights reserved. Copyright © DataArt, Inc. All rights reserved. Copyright © ComponentSource. All rights reserved. Copyright © Microsoft Corporation. All rights reserved. Copyright © Rogue Wave Software, Inc. All rights reserved. Copyright © Teradata Corporation. All rights reserved. Copyright © Yahoo! Inc. All rights reserved. Copyright © Glyph & Cog, LLC. All rights reserved. Copyright © Thinkmap, Inc. All rights reserved. Copyright © Clearpace Software Limited. All rights reserved. Copyright © Information Builders, Inc. All rights reserved. Copyright © OSS Nokalva, Inc. All rights reserved. Copyright Edifecs, Inc. All rights reserved. Copyright Cleo Communications, Inc. All rights reserved. Copyright © International Organization for Standardization 1986. All rights reserved. Copyright © ej-technologies GmbH. All rights reserved. Copyright © Jaspersoft Corporation. All rights reserved. Copyright © International Business Machines Corporation. All rights reserved. Copyright © yWorks GmbH. All rights reserved. Copyright © Lucent Technologies. All rights reserved. Copyright (c) University of Toronto. All rights reserved. Copyright © Daniel Veillard. All rights reserved. Copyright © Unicode, Inc. Copyright IBM Corp. All rights reserved. Copyright © MicroQuill Software Publishing, Inc. All rights reserved. Copyright © PassMark Software Pty Ltd. All rights reserved. Copyright © LogiXML, Inc. All rights reserved. Copyright © 2003-2010 Lorenzi Davide, All rights reserved. Copyright © Red Hat, Inc. All rights reserved. Copyright © The Board of Trustees of the Leland Stanford Junior University. All rights reserved. Copyright © EMC Corporation. All rights reserved. Copyright © Flexera Software. All rights reserved. Copyright © Jinfonet Software. All rights reserved. Copyright © Apple Inc. All rights reserved. Copyright © Telerik Inc. All rights reserved. Copyright © BEA Systems. All rights reserved. Copyright © PDFlib GmbH. All rights reserved. Copyright © Orientation in Objects GmbH. All rights reserved. Copyright © Tanuki Software, Ltd. All rights reserved. Copyright © Ricebridge. All rights reserved. Copyright © Sencha, Inc. All rights reserved. Copyright © Scalable Systems, Inc. All rights reserved. Copyright © jqWidgets. All rights reserved. Copyright © Tableau Software, Inc. All rights reserved. Copyright © MaxMind, Inc. All Rights Reserved. Copyright © TMate Software s.r.o. All rights reserved. Copyright © MapR Technologies Inc. All rights reserved. Copyright © Amazon Corporate LLC. All rights reserved. Copyright © Highsoft. All rights reserved. Copyright © Python Software Foundation. All rights reserved. Copyright © BeOpen.com. All rights reserved. Copyright © CNRI. All rights reserved.

This product includes software developed by the Apache Software Foundation (<http://www.apache.org/>), and/or other software which is licensed under various versions of the Apache License (the "License"). You may obtain a copy of these Licenses at <http://www.apache.org/licenses/>. Unless required by applicable law or agreed to in writing, software distributed under these Licenses is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the Licenses for the specific language governing permissions and limitations under the Licenses.

This product includes software which was developed by Mozilla (<http://www.mozilla.org/>), software copyright The JBoss Group, LLC, all rights reserved; software copyright © 1999-2006 by Bruno Lowagie and Paulo Soares and other software which is licensed under various versions of the GNU Lesser General Public License Agreement, which may be found at <http://www.gnu.org/licenses/lgpl.html>. The materials are provided free of charge by Informatica, "as-is", without warranty of any kind, either express or implied, including but not limited to the implied warranties of merchantability and fitness for a particular purpose.

The product includes ACE(TM) and TAO(TM) software copyrighted by Douglas C. Schmidt and his research group at Washington University, University of California, Irvine, and Vanderbilt University, Copyright (©) 1993-2006, all rights reserved.

This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (copyright The OpenSSL Project. All Rights Reserved) and redistribution of this software is subject to terms available at <http://www.openssl.org> and <http://www.openssl.org/source/license.html>.

This product includes Curl software which is Copyright 1996-2013, Daniel Stenberg, <daniel@haxx.se>. All Rights Reserved. Permissions and limitations regarding this software are subject to terms available at <http://curl.haxx.se/docs/copyright.html>. Permission to use, copy, modify, and distribute this software for any purpose with or without fee is hereby granted, provided that the above copyright notice and this permission notice appear in all copies.

The product includes software copyright 2001-2005 (©) MetaStuff, Ltd. All Rights Reserved. Permissions and limitations regarding this software are subject to terms available at <http://www.dom4j.org/license.html>.

The product includes software copyright © 2004-2007, The Dojo Foundation. All Rights Reserved. Permissions and limitations regarding this software are subject to terms available at <http://dojotoolkit.org/license>.

This product includes ICU software which is copyright International Business Machines Corporation and others. All rights reserved. Permissions and limitations regarding this software are subject to terms available at <http://source.icu-project.org/repos/icu/icu/trunk/license.html>.

This product includes software copyright © 1996-2006 Per Bothner. All rights reserved. Your right to use such materials is set forth in the license which may be found at <http://www.gnu.org/software/kawa/Software-License.html>.

This product includes OSSP UUID software which is Copyright © 2002 Ralf S. Engelschall, Copyright © 2002 The OSSP Project Copyright © 2002 Cable & Wireless Deutschland. Permissions and limitations regarding this software are subject to terms available at <http://www.opensource.org/licenses/mit-license.php>.

This product includes software developed by Boost (<http://www.boost.org/>) or under the Boost software license. Permissions and limitations regarding this software are subject to terms available at http://www.boost.org/LICENSE_1_0.txt.

This product includes software copyright © 1997-2007 University of Cambridge. Permissions and limitations regarding this software are subject to terms available at <http://www.pcre.org/license.txt>.

This product includes software copyright © 2007 The Eclipse Foundation. All Rights Reserved. Permissions and limitations regarding this software are subject to terms available at <http://www.eclipse.org/org/documents/epl-v10.php> and at <http://www.eclipse.org/org/documents/edl-v10.php>.

This product includes software licensed under the terms at <http://www.tcl.tk/software/tcltk/license.html>, <http://www.bosrup.com/web/overlib/?License>, <http://www.stlport.org/doc/license.html>, <http://asm.ow2.org/license.html>, <http://www.cryptix.org/LICENSE.TXT>, <http://hsqldb.org/web/hsqLicense.html>, <http://httpunit.sourceforge.net/doc/license.html>, <http://jung.sourceforge.net/license.txt>, http://www.gzip.org/zlib/zlib_license.html, <http://www.openldap.org/software/release/license.html>, <http://www.libssh2.org>, <http://slf4j.org/license.html>, <http://www.sente.ch/software/OpenSourceLicense.html>, <http://fusesource.com/downloads/license-agreements/fuse-message-broker-v-5-3-license-agreement>, <http://antlr.org/license.html>, <http://aopalliance.sourceforge.net/>, <http://www.bouncycastle.org/licence.html>, <http://www.jgraph.com/jgraphdownload.html>, <http://www.jcraft.com/jsch/LICENSE.txt>, http://jotm.objectweb.org/bsd_license.html, <http://www.w3.org/Consortium/Legal/2002/copyright-software-20021231>, <http://www.slf4j.org/license.html>, <http://nanoxml.sourceforge.net/orig/copyright.html>, <http://www.json.org/license.html>, <http://forge.ow2.org/projects/javaservice/>, <http://www.postgresql.org/about/licence.html>, <http://www.sqlite.org/copyright.html>, <http://www.tcl.tk/software/tcltk/license.html>, <http://www.jaxen.org/faq.html>, <http://www.jdom.org/docs/faq.html>, <http://www.slf4j.org/license.html>, <http://www.iodbc.org/dataspace/iodbc/wiki/IODBC/License>, <http://www.keplerproject.org/md5/license.html>, <http://www.toedter.com/en/jcalendar/license.html>, <http://www.edankert.com/bounce/index.html>, <http://www.net-snmp.org/about/license.html>, <http://www.openmdx.org/#FAQ>, http://www.php.net/license/3_01.txt, <http://srp.stanford.edu/license.txt>, <http://www.schneider.com/blowfish.html>, <http://www.jmock.org/license.html>, <http://xsom.java.net>, <http://benalman.com/about/license/>, <https://github.com/CreateJS/EaselJS/blob/master/src/easeljs/display/Bitmap.js>, <http://www.h2database.com/html/license.html#summary>, <http://jsoncpp.sourceforge.net/LICENSE>, <http://jdbc.postgresql.org/license.html>, <http://protobuf.googlecode.com/svn/trunk/src/google/protobuf/descriptor.proto>, <https://github.com/rantav/hector/blob/master/LICENSE>, <http://web.mit.edu/Kerberos/krb5-current/doc/mitK5license.html>, <http://jibx.sourceforge.net/jibx-license.html>, <https://github.com/lyokato/libgeohash/blob/master/LICENSE>, <https://github.com/hjiang/jsonxx/blob/master/LICENSE>, <https://code.google.com/p/lz4/>, <https://github.com/jedisct1/libsodium/blob/master/LICENSE>, <http://one-jar.sourceforge.net/index.php?page=documents&file=license>, <https://github.com/EsotericSoftware/kryo/blob/master/license.txt>, <http://www.scala-lang.org/license.html>, <https://github.com/tinkerpop/blueprints/blob/master/LICENSE.txt>, <http://gee.cs.oswego.edu/dl/classes/EDU/oswego/cs/dl/util/concurrent/intro.html>, <https://aws.amazon.com/ssl/>, <https://github.com/twbs/bootstrap/blob/master/LICENSE>, <https://sourceforge.net/p/xmlunit/code/HEAD/tree/trunk/LICENSE.txt>, <https://github.com/documentcloud/underscore-contrib/blob/master/LICENSE>, and <https://github.com/apache/hbase/blob/master/LICENSE.txt>.

This product includes software licensed under the Academic Free License (<http://www.opensource.org/licenses/afl-3.0.php>), the Common Development and Distribution License (<http://www.opensource.org/licenses/cddl1.php>), the Common Public License (<http://www.opensource.org/licenses/cpl1.0.php>), the Sun Binary Code License Agreement Supplemental License Terms, the BSD License (<http://www.opensource.org/licenses/bsd-license.php>), the new BSD License (<http://opensource.org/licenses/BSD-3-Clause>), the MIT License (<http://www.opensource.org/licenses/mit-license.php>), the Artistic License (<http://www.opensource.org/licenses/artistic-license-1.0>) and the Initial Developer's Public License Version 1.0 (<http://www.firebirdsql.org/en/initial-developer-s-public-license-version-1-0/>).

This product includes software copyright © 2003-2006 Joe Walnes, 2006-2007 XStream Committers. All rights reserved. Permissions and limitations regarding this software are subject to terms available at <http://xstream.codehaus.org/license.html>. This product includes software developed by the Indiana University Extreme! Lab. For further information please visit <http://www.extreme.indiana.edu/>.

This product includes software Copyright (c) 2013 Frank Balluffi and Markus Moeller. All rights reserved. Permissions and limitations regarding this software are subject to terms of the MIT license.

See patents at <https://www.informatica.com/legal/patents.html>.

DISCLAIMER: Informatica LLC provides this documentation "as is" without warranty of any kind, either express or implied, including, but not limited to, the implied warranties of noninfringement, merchantability, or use for a particular purpose. Informatica LLC does not warrant that this software or documentation is error free. The information provided in this software or documentation may include technical inaccuracies or typographical errors. The information in this software and documentation is subject to change at any time without notice.

NOTICES

This Informatica product (the "Software") includes certain drivers (the "DataDirect Drivers") from DataDirect Technologies, an operating company of Progress Software Corporation ("DataDirect") which are subject to the following terms and conditions:

1. THE DATADIRECT DRIVERS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT.
2. IN NO EVENT WILL DATADIRECT OR ITS THIRD PARTY SUPPLIERS BE LIABLE TO THE END-USER CUSTOMER FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL OR OTHER DAMAGES ARISING OUT OF THE USE OF THE ODBC DRIVERS, WHETHER OR NOT INFORMED OF THE POSSIBILITIES OF DAMAGES IN ADVANCE. THESE LIMITATIONS APPLY TO ALL CAUSES OF ACTION, INCLUDING, WITHOUT LIMITATION, BREACH OF CONTRACT, BREACH OF WARRANTY, NEGLIGENCE, STRICT LIABILITY, MISREPRESENTATION AND OTHER TORTS.

Publication Date: 2018-06-26

Table of Contents

Preface	5
Informatica Resources.	5
Informatica Network.	5
Informatica Knowledge Base.	5
Informatica Documentation.	5
Informatica Product Availability Matrixes.	6
Informatica Velocity.	6
Informatica Marketplace.	6
Informatica Global Customer Support.	6
 Chapter 1: Getting Started with Informatica Analyst.....	7
Introducing Informatica Analyst.	7
Informatica Analyst Tutorial.	7
The Tutorial Story.	8
 Chapter 2: Lesson 1. Setting Up Informatica Analyst.....	9
Setting Up Informatica Analyst Overview.	9
Task 1. Log In to Informatica Analyst.	10
Task 2. Create a Project.	10
Task 3. Create a Folder.	10
Setting Up Informatica Analyst Summary.	11
 Chapter 3: Lesson 2. Creating Data Objects.....	12
Creating Data Objects Overview.	12
Task 1. Create the Customers Flat File Data Object.	13
Task 2. Create the Accounts Flat File Data Object.	13
Task 3. Create the Customer_Accounts Table Data Object.	14
Task 4. Preview the Data Object.	15
Creating Data Objects Summary.	15
 Chapter 4: Lesson 3: Creating a Mapping Specification.....	16
Mapping Specification Overview.	16
Task 1. Create a Mapping Specification.	17
Task 2. Edit the Customer_Accounts Target.	18
Task 3. Add a Simple Filter.	18
Task 4. Create a Rule.	18
Task 5. Load the Mapping Specification Results to the Target.	19
Creating a Mapping Specification Summary.	19
 Index.....	21

Preface

The *Informatica Mapping Specification Getting Started Guide* is written for analysts who use mapping specifications to define business logic and collaborate on business projects in an enterprise. It provides a tutorial to help first-time users learn how to use Informatica Analyst. This guide assumes that you have an understanding of data integration concepts, flat file and relational database concepts, and the database engines in your environment.

Informatica Resources

Informatica Network

Informatica Network hosts Informatica Global Customer Support, the Informatica Knowledge Base, and other product resources. To access Informatica Network, visit <https://network.informatica.com>.

As a member, you can:

- Access all of your Informatica resources in one place.
- Search the Knowledge Base for product resources, including documentation, FAQs, and best practices.
- View product availability information.
- Review your support cases.
- Find your local Informatica User Group Network and collaborate with your peers.

Informatica Knowledge Base

Use the Informatica Knowledge Base to search Informatica Network for product resources such as documentation, how-to articles, best practices, and PAMs.

To access the Knowledge Base, visit <https://kb.informatica.com>. If you have questions, comments, or ideas about the Knowledge Base, contact the Informatica Knowledge Base team at KB_Feedback@informatica.com.

Informatica Documentation

To get the latest documentation for your product, browse the Informatica Knowledge Base at https://kb.informatica.com/_layouts/ProductDocumentation/Page/ProductDocumentSearch.aspx.

If you have questions, comments, or ideas about this documentation, contact the Informatica Documentation team through email at infa_documentation@informatica.com.

Informatica Product Availability Matrixes

Product Availability Matrixes (PAMs) indicate the versions of operating systems, databases, and other types of data sources and targets that a product release supports. If you are an Informatica Network member, you can access PAMs at

<https://network.informatica.com/community/informatica-network/product-availability-matrices>.

Informatica Velocity

Informatica Velocity is a collection of tips and best practices developed by Informatica Professional Services. Developed from the real-world experience of hundreds of data management projects, Informatica Velocity represents the collective knowledge of our consultants who have worked with organizations from around the world to plan, develop, deploy, and maintain successful data management solutions.

If you are an Informatica Network member, you can access Informatica Velocity resources at

<http://velocity.informatica.com>.

If you have questions, comments, or ideas about Informatica Velocity, contact Informatica Professional Services at ips@informatica.com.

Informatica Marketplace

The Informatica Marketplace is a forum where you can find solutions that augment, extend, or enhance your Informatica implementations. By leveraging any of the hundreds of solutions from Informatica developers and partners, you can improve your productivity and speed up time to implementation on your projects. You can access Informatica Marketplace at <https://marketplace.informatica.com>.

Informatica Global Customer Support

You can contact a Global Support Center by telephone or through Online Support on Informatica Network.

To find your local Informatica Global Customer Support telephone number, visit the Informatica website at the following link:

<http://www.informatica.com/us/services-and-training/support-services/global-support-centers>.

If you are an Informatica Network member, you can use Online Support at <http://network.informatica.com>.

CHAPTER 1

Getting Started with Informatica Analyst

This chapter includes the following topics:

- [Introducing Informatica Analyst, 7](#)
- [Informatica Analyst Tutorial, 7](#)

Introducing Informatica Analyst

Informatica Analyst is a web-based application client that data integration analysts can use to perform data integration tasks in an enterprise.

Analysts and developers use the Analyst tool for data-driven collaboration. Use the Analyst tool to create a mapping specification to define business logic that transforms and moves data from source to target.

Informatica Analyst Tutorial

During this tutorial, an analyst logs into the Analyst tool, creates a project and folder, creates data objects, and creates a mapping specification.

The following table describes the lessons you will perform in the tutorial:

Lesson	Description
Lesson 1. Setting up Informatica Analyst	Log in to the Analyst tool and create a project and folder for the tutorial lessons.
Lesson 2. Creating Data Objects	Import flat files and a table as data objects and preview the data.
Lesson 3. Creating a Mapping Specification	Create a mapping specification to develop the business logic that transforms and moves data from source to target and populates a target table.

The Tutorial Story

HypoStores Corporation is a national retail organization with headquarters in Boston and stores in several states. It integrates operational data from stores nationwide with the data store at headquarters on regular basis. It recently opened a store in Los Angeles.

The headquarters includes a central ICC team of administrators, developers, and architects responsible for providing a common data services layer for all composite and BI applications. The BI applications include a CRM system that contains the master customer data files used for billing and marketing.

HypoStores Corporation wants to integrate the Boston and Los Angeles data sets. HypoStores wants to create mapping specifications to develop business logic that transforms and moves data from sources to a target. Hypostores can then leverage the data in the target to run reports.

CHAPTER 2

Lesson 1. Setting Up Informatica Analyst

This chapter includes the following topics:

- [Setting Up Informatica Analyst Overview, 9](#)
- [Task 1. Log In to Informatica Analyst, 10](#)
- [Task 2. Create a Project, 10](#)
- [Task 3. Create a Folder, 10](#)
- [Setting Up Informatica Analyst Summary, 11](#)

Setting Up Informatica Analyst Overview

Before you start the lessons in this tutorial, you must set up the Analyst tool. To set up the Analyst tool, log in to the Analyst tool and create a project and a folder to store your work.

The Informatica domain is a collection of nodes and services that define the Informatica environment. Services in the domain include the Analyst Service and the Model Repository Service. The Analyst Service runs the Analyst tool, and the Model Repository Service manages the Model repository. When you work in the Analyst tool, the Analyst tool stores the assets that you create in the Model repository.

You must create a project before you can create assets in the Analyst tool. A project contains assets in the Analyst tool. A project can also contain folders that store related assets, such as data objects that are part of the same business requirement.

Objectives

In this lesson, you complete the following tasks:

- Log in to the Analyst tool.
- Create a project to store the assets that you create in the Analyst tool.
- Create a folder in the project that can store related assets.

Prerequisites

Before you start this lesson, verify the following prerequisites:

- An administrator has configured a Model Repository Service and an Analyst Service in the Administrator tool.

- You have the host name and port number for the Analyst tool.
- You have a user name and password to access the Analyst Service. You can get this information from an administrator.

Timing

Set aside 5 to 10 minutes to complete this lesson.

Task 1. Log In to Informatica Analyst

Log in to the Analyst tool to begin the tutorial.

1. Start a Microsoft Internet Explorer or Google Chrome browser.
2. In the Address field, enter the URL for Informatica Analyst:
`http[s]://<fully qualified host name>:<port number>/analyst`
3. If the domain uses LDAP or native authentication, enter your user name and password on the login page.
4. Select **Native** or the name of a specific security domain.
 The Security Domain field appears when the Informatica domain uses LDAP or Kerberos authentication. If you do not know the security domain that your user account belongs to, contact the Informatica domain administrator.
5. Click **Log In**.
 The Analyst tool opens on the **Start** workspace.

Task 2. Create a Project

In this task, you create a project to contain the assets that you create in the Analyst tool. Create a tutorial project to contain the folder for the project.

1. On the **Manage** header, click **Projects**.
 The **Projects** workspace appears.
2. From the **Actions** menu, click **New > Project**.
 The **New Project** window appears.
3. Enter your name prefixed by "Tutorial_" as the name of the project.
4. Click **OK**.

Task 3. Create a Folder

In this task, you create a folder to store related assets. You can create a folder in a project or another folder. Create a folder named Customers to store the assets related to the data quality project.

1. In the **Projects** panel, select the tutorial project.

2. From the **Actions** menu, click **New > Folder**.
The **New Folder** window appears.
3. Enter Customers for the folder name.
4. Click **OK**.
The folder appears under the tutorial project.

Setting Up Informatica Analyst Summary

In this lesson, you learned that the Analyst tool stores assets in projects and folders. A Model repository contains the projects and folders. The Analyst Service runs the Analyst tool. The Model Repository Service manages the Model repository. The Analyst Service and the Model Repository Service are application services in the Informatica domain.

You logged in to the Analyst tool and created a project and a folder.

Now, you can use the Analyst tool to complete other lessons in this tutorial.

CHAPTER 3

Lesson 2. Creating Data Objects

This chapter includes the following topics:

- [Creating Data Objects Overview, 12](#)
- [Task 1. Create the Customers Flat File Data Object, 13](#)
- [Task 2. Create the Accounts Flat File Data Object, 13](#)
- [Task 3. Create the Customer_Accounts Table Data Object, 14](#)
- [Task 4. Preview the Data Object, 15](#)
- [Creating Data Objects Summary, 15](#)

Creating Data Objects Overview

In the Analyst tool, a data object is a representation of data based on a flat file or relational database table. You create a flat file or table data object and then use the flat file and table data objects in a mapping specification.

Story

HypoStores keeps its customer data in flat files and relational tables. HypoStores needs to analyze the data and perform data integration tasks.

Objectives

In this lesson, you complete the following tasks:

1. Upload the flat files to the flat file cache location and create flat file data objects.
2. Import a target table data object into the Analyst tool.
3. Preview the data for the data objects.

Prerequisites

Before you start this lesson, verify the following prerequisites:

- You have completed lesson 1 in this tutorial.
- You have the Accounts.txt and Customers.txt flat files. You can download the Accounts.txt file [here](#) and the Customers.txt file [here](#).
- You have the Oracle client installed to create the Customer_Accounts target table data object.
- You have the connection to the Oracle database.

- You have the target.sql table. You can download the script [here](#). Use Oracle SQL Plus to run SQL statements to create a target table.

Timing

Set aside 10 to 15 minutes to complete this lesson.

Task 1. Create the Customers Flat File Data Object

In this task, you use the **Add Flat File** wizard to create a flat file data object from Customers.csv.

1. On the **New** header, click **Flat File Data Object**.
The **Add Flat File wizard** appears.
2. Select **Browse and Upload**, and click **Choose File** to browse to the location of Customers.csv.
3. Accept the default **Delimited** option.
4. Click **Next**.
5. Under **Specify lines to import**, select **Import from first line** to import column names from the first non-blank line.
6. Click **Show**.
The details panel updates to show the column headings from the first row.
7. Click **Next**.
The **Column Attributes** panel shows the datatype, precision, scale, and format for each column.
8. Edit the following column attributes:

Column Name	Datatype	Precision	Scale
CHECKING_BALANCE	Number	38	0
SAVINGS_BALANCE	Number	38	0

9. Click **Next**.
10. Select the Customers folder in the **Folders** panel where you want to add the flat file.
The **Flat Files** panel displays the flat files that exist in a project or folder.
11. Click **Finish**.
The Analyst tool displays the data preview for the Customers flat file data object on the **Data Preview** tab. View the properties for the flat file on the **Properties** tab.

Task 2. Create the Accounts Flat File Data Object

In this task, you use the **Add Flat File** wizard to create a flat file data objects from the Accounts data file.

1. On the **New** header, click **Flat File Data Object**.
The **Add Flat File wizard** appears.

2. Select **Browse and Upload**, and click **Choose File** to browse to the location of Accounts.csv.
3. Accept the default **Delimited** option.
4. Click **Next**.
5. Under **Specify lines to import**, select **Import from first line** to import column names from the first non-blank line.
6. Click **Show**.
The details panel updates to show the column headings from the first row.
7. Click **Next**.
The **Column Attributes** panel shows the datatype, precision, scale, and format for each column.
8. Click **Next**.
9. Select the Customers folder in the **Folders** panel where you want to add the flat file.
The **Flat Files** panel displays the flat files that exist in a project or folder.
10. Click **Finish**.
The Analyst tool displays the data preview for the Accounts flat file data object on the **Data Preview** tab.
View the properties for the flat file on the **Properties** tab.

Task 3. Create the Customer_Accounts Table Data Object

In this task, you use the **Add Tables Wizard** to add a table to a project. To add a table, select the connection, select the schema and tables, and add the table.

1. On the **New** header, click **Table Data Object**.
The **New Table** wizard appears.
2. Select a connection.
3. Select the Customer_Accounts table.
4. Click **Next**.
5. Select the Customers folder in the **Folders** panel where you want to add the table.
The **Tables** panel displays the tables that exist in the project or folder.
6. Click **Finish**.
The Customer_Accounts table data object appears in the folder contents for the Customers folder.

Task 4. Preview the Data Object

In this task, you preview the data for the table flat file data object to review the structure and content of the data.

1. Open the **Library** workspace, and expand the **Projects** panel to select a flat file or table data object from a project or folder.

For example, select the Customers flat file data object from the Customers folder in the tutorial project.

The Analyst tool displays the data preview for the flat file or table on the **Data Preview** tab.

2. Click the **Properties** tab.

The Analyst tool displays the name, type, description, and location or file path of the flat file data object in the project or folder in the **Properties** panel. The Analyst tool displays the connection name, Data Object Model name, table name, and schema name for the table object in the project or folder in the **Properties** panel. You can preview column metadata for tables and flat files and data quality results for other object types in the **Columns** panel.

Creating Data Objects Summary

In this lesson, you learned that flat file and table data objects are representations of data based on a flat file. You learned that you can create flat file and table data objects and preview the data in it.

You uploaded two flat files and created flat file data objects. You imported a relational table and created a table data object. You previewed the data for the data objects, and viewed the properties for the data objects.

After you create a flat file data object, you can use it as a source in a mapping specification in Lesson 3.

After you create a table data object, you can use it as a target in a mapping specification in Lesson 3.

CHAPTER 4

Lesson 3: Creating a Mapping Specification

This chapter includes the following topics:

- [Mapping Specification Overview, 16](#)
- [Task 1. Create a Mapping Specification, 17](#)
- [Task 2. Edit the Customer_Accounts Target, 18](#)
- [Task 3. Add a Simple Filter, 18](#)
- [Task 4. Create a Rule, 18](#)
- [Task 5. Load the Mapping Specification Results to the Target, 19](#)
- [Creating a Mapping Specification Summary, 19](#)

Mapping Specification Overview

A mapping specification is an asset that describes the movement and transformation of data from a source to a target. Use a mapping specification to define business logic that populates a target table with data that you can leverage to report on the target table.

Story

HypoStores wants to develop business logic that can populate a target table with the current balance for each branch in a financial organization. You are the analyst who is responsible for developing a mapping specification that generates current balance data for active customer accounts for a set of financial products in the target table.

Objectives

In this lesson, you complete the following tasks:

1. Create a mapping specification with two sources and a target.
2. Add a simple filter to the mapping specification.
3. Add a rule to the mapping specification.
4. Load the results of the mapping specification to a target.

Prerequisites

Before you start this lesson, verify the following prerequisites:

- You have completed Lessons 1 and 2 in this tutorial.

Timing

Set aside 10 to 15 minutes to complete this lesson.

Task 1. Create a Mapping Specification

In this task, you create a mapping specification with two sources and a target. You specify a normal join between the sources.

1. From the **New Assets** panel in the **Design** workspace, click **Mapping Specification**.
The **New Mapping Specification** window appears.
2. Enter Customer_Data as the mapping specification name.
3. Select the Customers folder in your tutorial project.
4. Click **Next**.
5. On the **Sources** panel, click the **Add Source Object** icon and select the Accounts and Customers sources from the Customers folder.
Use the check boxes to select both sources.
6. Click **OK**.
7. Click **Next**.
8. On the **Joins** panel, click the **New Join** icon to create a join and select the edit options to configure the join.
9. In the **Name** field, enter CustomerData.
10. In the **Join Type** field, accept the default **Normal**.
11. Select Accounts as the Master table and Customers as the Detail table.
12. Select **Simple Join**.
13. On the **Join Conditions** panel, modify the join condition to display those customer accounts that have purchased financial products.
Specify the following join condition:
 - Master Column Name. Select the ACCOUNTS.ACCOUNT_CUSTOMER column.
 - Operator. Select the "=" operator.
 - Detail Column Name. Select the CUSTOMERS.CUSTOMER column.
14. Click **OK**.
15. Click **Next**.
16. On the **Target Object** panel, select the Customer_Accounts table data object.
17. Click **Finish**.
The Customer_Data mapping specification opens on the **Column Mapping** tab.

Task 2. Edit the Customer_Accounts Target

In this task, you map source and target columns in a mapping specification based on column names.

1. From the **Actions** menu, click the **Automap Columns** icon.
The **Automap** window appears.
2. Accept the default **Simple** option.
3. Select **Automap by column name**.
4. Click **Save**.
The Analyst tool maps the columns by name on the **Transformations and Target Columns** panel.
5. From the **Actions** menu, click **Validate Mapping Specification** to validate the mapping specification.
The Analyst tool displays a message that states the mapping specification is valid.
6. Click **OK**.

Task 3. Add a Simple Filter

In this task, you add a simple filter to the mapping specification to hide the "B" accounts that have the Bronze status and are no longer valid.

1. On the **Column Mapping** tab, click **Actions > Edit > Filter**.
The **Edit Mapping Specification** window appears.
2. Click the **New Filter** icon.
The **New Filter** window appears.
3. Accept the default **Simple** filter.
4. On the **Condition** panel, configure the following filter condition:

```
ACCOUNTS.ACCOUNTS_TYPE != B
```
5. Click **Refresh** to preview the data.
6. Click **OK**.
7. Click **Save**.
8. From the **Actions** menu, click **Validate Mapping Specification** to validate the mapping specification.
The Analyst tool displays a message that states the mapping specification is valid.
9. Click **OK**.

Task 4. Create a Rule

In this task, you create a rule that sums up the current balances from the checking and savings accounts that have increased by 15 percent.

1. On the **Column Mapping** tab, click **Actions > Edit > Rules**.
The **Edit Mapping Specification** window appears.

2. Select the **New Rule** icon.
The **New Rule** window appears.
3. Select **Create a rule**.
4. Click **Next**.
5. Enter CurrentBalance as the rule name.
6. On the Target Column Name, select the CURRENT_BALANCE target column.
7. Enter the following expression in the Expression Editor:

```
(CUSTOMERS.CHECKING_BALANCE+CUSTOMERS.SAVINGS_BALANCE)*1.15
```
8. Click the **Validate** icon to validate the expression.
The Analyst tool displays a message that states the expression is valid.
9. Click **OK**.
10. Click **Finish**.
11. Click **Save**.

Task 5. Load the Mapping Specification Results to the Target

In this task, you load the results of the mapping specification to the Customer_Accounts target table in the Model repository. The Customer_Accounts target matches the structure and properties of the target in the mapping specification.

1. From the **Actions** menu, click **Export**.
The **Export** window appears.
2. Select **Table**.
3. Click **Next**.
The name for the mapping specification run is Customer_Data.
4. Click **Next**.
5. In the **Target Object** panel, select the CUSTOMER_ACCOUNTS target.
6. Click **Finish**.
The Analyst tool displays a message that states you can click the job status tab link to monitor the mapping specification run.

Creating a Mapping Specification Summary

In this lesson, you learned that you can create a mapping specification to develop business logic that can populate a target table.

You created a mapping specification with two sources. When you created the mapping specification, you performed a normal join between the sources. You edited the target to map the source columns to the target columns and added a new row in the target to define the column properties for a new column. You renamed a row to match the name of a target table column. You added a simple filter to a target column. You created a

rule for another target column. You also validated the mapping specification during the development cycle. Finally, you loaded the results of the mapping specification to the target data object.

INDEX

S

setting up Analyst tool
overview [9](#)