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10.4.0

Metadata Manager View Reference

Informatica Metadata Manager View Reference
10.4.0
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Preface

Refer to the *Metadata Manager View Reference Guide* for information about accessing and querying the Metadata Manager warehouse database schema using Metadata Manager views.

This guide is written for Metadata Manager users and Business Glossary users.

Informatica Resources

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To find online support resources on the Informatica Network, visit https://network.informatica.com and select the eSupport option.

CHAPTER 1

Metadata Manager Views

This chapter includes the following topics:

- Metadata Manager Views Overview, 8
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Metadata Manager Views Overview

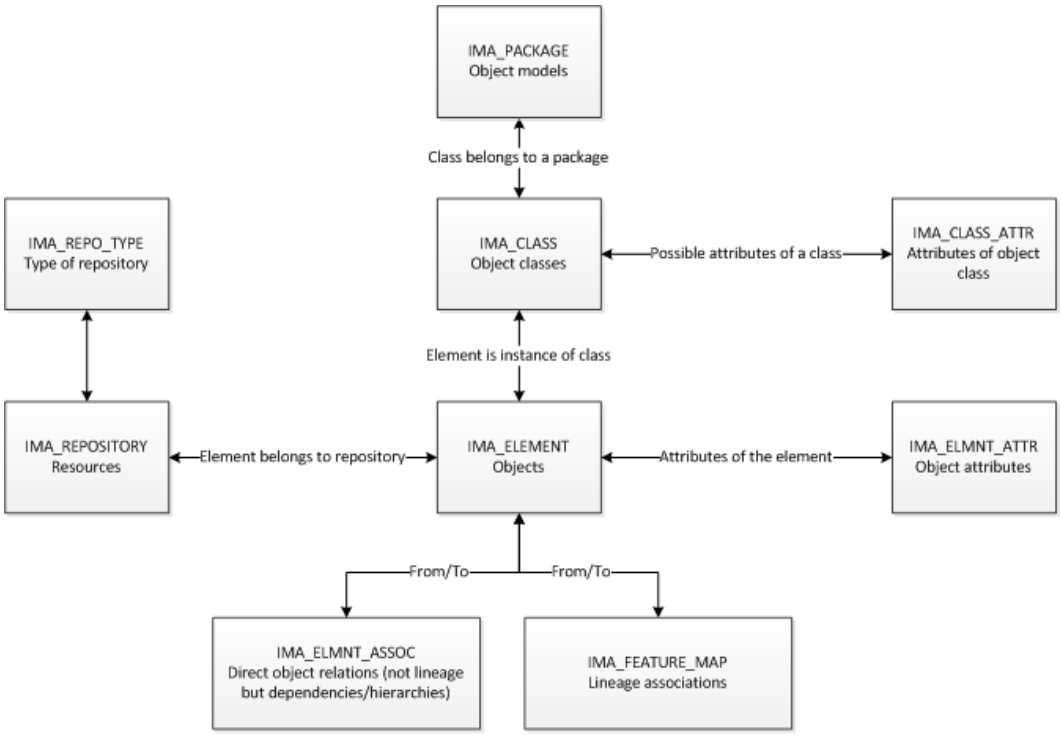
Metadata Manager provides a set of views to help you query data from the Metadata Manager warehouse.

The following table lists the Metadata Manager views:

View	Description
IMA_REPO_TYPE	Provides details about the resource types in the Metadata Manager warehouse.
IMA_REPOSITORY	Provides information about resources in the Metadata Manager warehouse.
IMA_ORIGINATOR	Provides details about the originator. The originator is the owner of a model.
IMA_PACKAGE	Provides details about packages in the Metadata Manager warehouse. A package is a collection of classes.

View	Description
IMA_REPO_PACKAGE	Provides a collection of packages that are associated with each resource type.
IMA_CLASS	Provides information about classes in the models in the Metadata Manager warehouse.
IMA_CLASS_ATTR	Provides information about the class attributes.
IMA_ELEMENT	Provides details about the elements in the Metadata Manager warehouse.
IMA_ELEMENT_ATTR	Provides information about element attributes.
IMA_ASSOCIATION	Provides details about the type of association between different classes.
IMA_ELMNT_ASSOC	Provides information about the associations, or non-lineage relationships, between elements.
IMA_CLASS_TREE	Provides information about the ancestor class. Each class in the Metadata Manager warehouse is based on the ancestor class in the common warehouse metamodel.
IMA_RBL_LINKS	Provides details about objects that are linked using rule-based linking.
IMA_FEATURE_MAP	Provides details about the data lineage links in the Metadata Manager warehouse.

The following image shows the Metadata Manager database model for reporting:



Use the UID fields to join tables.

IMA_REPO_TYPE

The IMA_REPO_TYPE view provides details about the resource types in the Metadata Manager warehouse.

The following table describes the columns in the IMA_REPO_TYPE view:

Column Name	Data Type	Description
REPO_TYPE_UID	Number	Unique numeric ID of the resource type.
REPO_TYPE_ID	String	Unique name ID of the resource type such as PowerCenter® or Oracle Business Intelligence.
REPO_TYPE_NAME	String	Name of the resource type.
REPO_TYPE_DESC	String	Description of the resource type.
REPO_TYPE_USAGE	String	Usage description of the resource type.
REPO_TYPE_OWNER	String	Owner of the resource type.
REPO_TYPE_VERSION	String	Deprecated.
DELETED_FLAG	Character	Indicates whether the resource type is active or deleted. When the DELETED_FLAG is set to Y, the resource type has been deleted from the Metadata Manager warehouse. When the DELETED_FLAG set to N, the resource type is active in the Metadata Manager warehouse.
DEFAULT_ICON	String	File name and file path for the image that is associated with the repository type, for example, /rdms/orcl_database.gif. The file path is relative to the following directory: `<Informatica services installation directory>\services \MetadataManagerService\mmapps\mm\images\`
PRODUCT_TYPE	String	Source system product type such as Data Integration or Data Modeling.
PRODUCT_NAME	String	Source system product name such as Oracle.
PRODUCT_VERSION	String	Source system product version.
CREATED_BY	String	Name of the user who creates the resource type.
CREATED_ON	Date	Date when the resource type was created.
MODIFIED_BY	String	Name of the user who last modified the resource type.
MODIFIED_ON	Date	Date when the resource type was last modified.

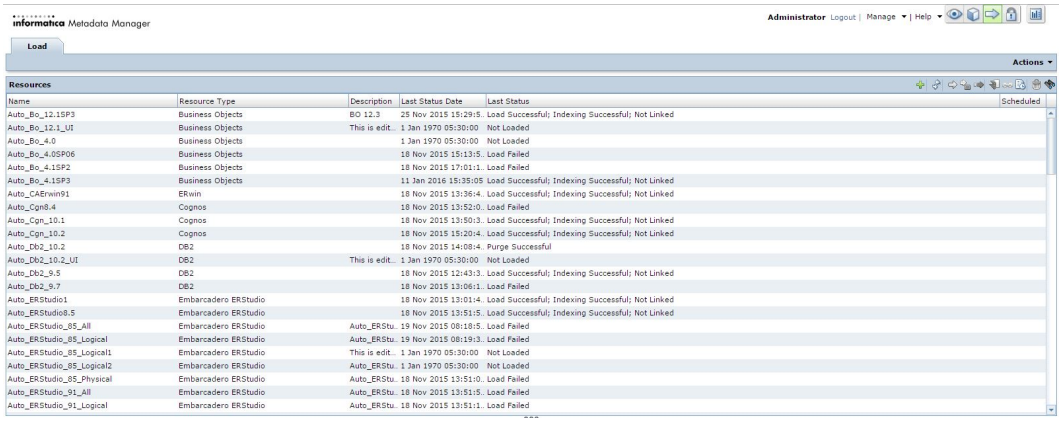
IMA_REPOSITORY

The IMA_REPOSITORY view provides information about resources in the Metadata Manager warehouse. Each resource in the Metadata Manager warehouse is represented as a row in the IMA_REPOSITORY view.

The following table describes the columns in the IMA_REPOSITORY view:

Column Name	Data Type	Description
REPO_TYPE_UID	Numeric	Unique numeric ID that is assigned to the type of the repository to which the resource belongs.
REPO_TYPE_NAME	String	Type of the repository to which the resource belongs.
REPOSITORY_KEY	Numeric	Deprecated.
REPOSITORY_UID	Numeric	Unique numeric ID that is assigned to the resource after the resource is loaded into the Metadata Manager warehouse.
REPOSITORY_ID	String	Unique name ID that is assigned to the resource.
REPOSITORY_NAME	String	Name that is assigned to the resource.
REPOSITORY_DESC	String	Description for the resource.
REPOSITORY_ICON	String	File name and file path for the image that is associated with the resource. The file path is relative to the following directory: `<Informatica services installation directory>\services\MetadataManagerService\mmapps\mm\images\`
PRODUCT_TYPE	String	Source system product type such as Data Integration or Data Modeling.
PRODUCT_NAME	String	Source system product name such as Oracle.
PRODUCT_VERSION	String	PowerCenter repository version, for example, 181, 182, or 184. **Note:** This column is valid for PowerCenter resources only.
DELETED_FLAG	Character	Indicates whether a resource is active or deleted. When the DELETED_FLAG is set to Y, the resource has been deleted from the Metadata Manager warehouse. When the DELETED_FLAG is set to N, the resource is active in the Metadata Manager warehouse.
LAST_RECORD_FLAG	Character	Deprecated.
EFF_FROM_DT	Date	Date when the resource was created in the Metadata Manager warehouse.
EFF_TO_DT	Date	Date when the resource was deleted from the Metadata Manager warehouse.

The following image shows how resource information is displayed in the Metadata Manager web application:



IMA_ORIGINATOR

The IMA_ORIGINATOR view provides details about the originator. The originator is the owner of the model. When you create a custom model, you typically add an originator.

The following table describes the columns in the IMA_ORIGINATOR view:

Column Name	Data Type	Description
ORIGINATOR_UID	Number	Unique numeric ID for the owner of the model.
ORIGINATOR_ID	String	Unique name ID for the owner of the model.
ORIGINATOR_NAME	String	Name of the originator, for example, Informatica LLC.
ORIGINATOR_DESC	String	Description of the originator.
DOMAIN_NAME	String	Domain name of the originator, for example, informatica.com.
ORIGINATOR_URL	String	URL of the originator, for example, http://www.informatica.com.
CONTACT_NAME	String	Contact name of the originator.
STREET_NAME	String	Street name of the originator.
CITY_NAME	String	City name of the originator.
AREA_NAME	String	Area name of the originator.
COUNTRY_NAME	String	Country name of the originator.
POSTAL_CODE	String	Postal code of the originator.
EMAIL	String	Email ID of the originator.
PHONE	String	Phone number of the originator.

Column Name	Data Type	Description
MOBILE	String	Mobile number of the originator.
PAGER	String	Pager number of the originator.
FAX	String	Fax number of the originator.
CREATED_BY	String	Name of the user who created the originator ID.
CREATED_ON	Date	Date when the originator ID was created.
MODIFIED_BY	String	Name of the user who last modified the originator ID.
MODIFIED_ON	Date	Date when the originator ID was last modified.

IMA_PACKAGE

The IMA_PACKAGE view provides details about packages in the Metadata Manager warehouse. A package is a collection of classes.

The following table describes the column in the IMA_PACKAGE view:

Column Name	Data Type	Description
PACKAGE_UID	Number	Unique numeric ID of the package.
PACKAGE_ID	String	Unique name ID of the package, for example, com.informatica.oracle.
PACKAGE_NAME	String	Name of the package.
PACKAGE_DESC	String	Description of the package.
PACKAGE_USAGE	String	Usage description of the package.
PACKAGE_OWNER	String	Owner of the package.
PACKAGE_VERSION	String	Version of the package.
ORIGINATOR_UID	Number	Unique numeric ID for the owner of the model.
CREATED_BY	String	Name of the user who created the package.
CREATED_ON	Date	Date when the package was created.
MODIFIED_BY	String	Name of the user who last modified the package.
MODIFIED_ON	Date	Date when the package was last modified.

Column Name	Data Type	Description
DELETED_FLAG	Character	Indicates whether the package is active or deleted. When the DELETED_FLAG is set to Y, the package has been deleted from the Metadata Manager warehouse. When the DELETED FLAG is set to N, the package is active in the Metadata Manager warehouse.
ORIGINATOR_ID	String	Unique name ID for the owner of the model.
ORIGINATOR_NAME	String	Name of the owner of the model.
PRNT_PKG_UID	Number	Unique numeric ID of the ancestor package from which this package is derived.
PRNT_PKG_ID	String	Unique name ID of the ancestor package from which this package is derived.
PRNT_PKG_NAME	String	Name of the ancestor package from which this package is derived.
PRNT_PKG_DESC	String	Description of the ancestor package.
PRNT_PKG_USG	String	Usage description of the ancestor package.
PRNT_PKG_VER	String	Version of the ancestor package.

IMA_REPO_PACKAGE

The IMA_REPO_PACKAGE view provides a collection of packages that are associated with the resource types.

The following table describes the columns in the IMA_REPO_PACKAGE view:

Column Name	Data Type	Description
REPO_TYPE_UID	Number	Unique numeric ID of the resource type.
REPO_TYPE_ID	String	Unique name ID for the resource type, for example, Oracle Business Intelligence.
REPO_TYPE_NAME	String	Name of the resource type.
REPO_TYPE_DESC	String	Description of the resource type.
PACKAGE_UID	Number	Unique numeric ID of the Package.
PACKAGE_ID	String	Unique name ID of the package, for example, com.informatica.oracle.
PACKAGE_NAME	String	Name of the package.
PACKAGE_DESC	String	Description of the package.
PACKAGE_USAGE	String	Usage description of the package.

IMA_CLASS

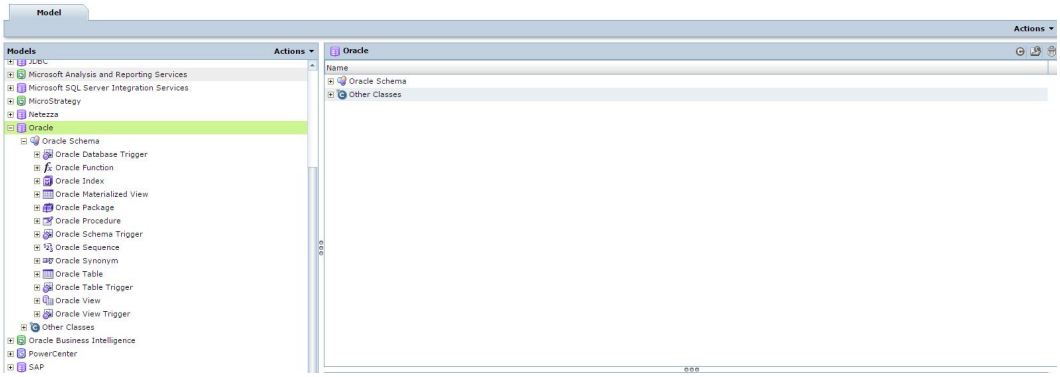
The IMA_CLASS view provides information about classes in the models in the Metadata Manager warehouse. Each class in a model is represented as a row in the IMA_CLASS view.

The following table describes the columns in the IMA_CLASS view:

Column Name	Data Type	Description
CLASS_UID	Number	Unique numeric ID of the class.
PACKAGE_UID	Number	Unique numeric ID of the package that contains the class.
PACKAGE_ID	String	Unique name ID of the package that contains the class.
PACKAGE_NAME	String	Name of the package that contains the class.
PACKAGE_DESC	String	Description of the package that contains the class.
ORIGINATOR_UID	Number	Unique numeric ID of the owner of the model that contains the package to which the class belongs.
ORIGINATOR_ID	String	Unique name ID of the owner of the model that contains the package to which the class belongs.
ORIGINATOR_NAME	String	Name of the owner of the model that contains the package to which the class belongs.
ORIGINATOR_DESC	String	Description of the model owner.
DOMAIN_NAME	String	Name of the domain of the model owner, for example, informatica.com.
CLASS_ID	String	Unique name ID of the class, for example, com.informatica.infa.SQLInstance.
CLASS_NAME	String	Name of the class, for example, OracleColumn.
CLASS_TYPE	String	Category such as Column, Table, or View.
CLASS_LABEL	String	User-friendly name of the class.
CLASS_DESC	String	Description of the class.
CLASS_ICON	String	File name and file path for the image that is associated with the class. The file path is relative to the following directory: `<Informatica services installation directory>\services\MetadataManagerService\mmapps\mm\images\`
CLASS_INVALID_ICON	String	Image associated with the class when the model that contains the class is deprecated. This column stores the file name and file path for the image. The file path is relative to the following directory: `<Informatica services installation directory>\services\MetadataManagerService\mmapps\mm\images\`
GROUP_NAME	String	Name of the group under which instances of the class appear such as Transformations or Physical Data Objects.

Column Name	Data Type	Description
GROUP_ICON	String	File name and file path for the image that is associated with the group. The file path is relative to the following directory: `<Informatica services installation directory>\services \MetadataManagerService\mmapps\mm\images\`
ABSTRACT_FLAG	Character	Deprecated.
FINAL_FLAG	Character	Deprecated.
DELETED_FLAG	Character	Indicates whether the class is active or deleted. When the DELETED_FLAG is set to Y, the class has been deleted from the Metadata Manager warehouse. When the DELETED_FLAG is set to N, the class is active in the Metadata Manager warehouse.
EXTENDABLE_FLAG	Character	Deprecated.
INST_CREATE_FLAG	Character	Deprecated.
INST_DELETE_FLAG	Character	Deprecated.
INST_CHANGE_FLAG	Character	Deprecated.
CREATED_BY	String	Name of the user who created the class.
CREATED_ON	Date	Date when the class was created.
MODIFIED_BY	String	Name of the user who last modified the class.
MODIFIED_ON	Date	Date when the class was last modified.

The following image shows the classes in the Oracle model in the Metadata Manager web application:



IMA_CLASS_ATTR

The IMA_CLASS_ATTR view provides information about the class attributes. Each attribute in the class is represented as a row in the IMA_CLASS_ATTR view.

The following table describes the columns in the IMA_CLASS_ATTR view:

Column Name	Data Type	Description
PRNT_CLASS_ID	String	Unique name ID of the ancestor class, for example, org.omg.cwm.objectmodel.core.ModelElement.
PRNT_CLASS_NAME	String	Name of the ancestor class, for example, ModelElement.
PRNT_CLASS_LABEL	String	User-friendly name of the ancestor class.
PRNT_CLASS_UID	Number	Unique numeric ID of the ancestor class.
CLASS_ID	String	Unique name ID of the class that includes the attribute.
CLASS_UID	Number	Unique numeric ID of the class that includes the attribute.
CLASS_NAME	String	Name of the class that includes the attribute.
CLASS_LABEL	String	User-friendly name of the class that includes the attribute.
PACKAGE_UID	Number	Unique numeric ID of the package that includes the class.
ORIGINATOR_UID	Number	Unique numeric ID of the owner of the model that contains the package in which the class is included.
ATTRIBUTE_NAME	String	Name of the attribute.
ATTRIBUTE_DESC	String	Description of the attribute.
ATTRIBUTE_USAGE	String	Usage description of the attribute.
DATA_TYPE	String	Data type of the attribute such as string or boolean.
DEFAULT_VALUE	String	Default value of the attribute.
EXTENDED_FLAG	Character	Deprecated
EDITABLE_FLAG	Character	Indicates whether the attribute is editable. **Note:** The only editable attribute is **Business Name**.
MANDATORY_FLAG	Character	Indicates whether the attribute value is mandatory or optional. If the MANDATORY_FLAG is Y, the attribute cannot contain a null value.
CLASS_ATTR_UID	Number	Unique numeric ID of the class attribute.
ATTRIBUTE_UID	Number	Unique numeric ID for the base attribute.
SCOPE_TYPE	String	Scope of the attribute such as global, repository, or element. Global base attributes are reused in different classes.

Column Name	Data Type	Description
CLASS_ATTR_NAME	String	Name of the attribute.
CLASS_ATTR_LABEL	String	User-friendly name of the class attribute.
CLASS_ATTR_DESC	String	Description of the class attribute.
CLASS_ATTR_USAGE	String	Usage description of the class attribute.
CLS_ATTR_DEFAULT_VALUE	String	Default value specified for the class attribute.
CLASS_ATTR_SEQ	Number	Sequence of the attribute as it is shown in the Attributes view of the **Model** tab.
DELETED_FLAG	Character	Indicates whether the attribute is active or deleted. When the DELETED_FLAG is set to Y, the attribute has been deleted from the Metadata Manager warehouse. When the DELETED_FLAG is set to N, the attribute is active in the Metadata Manager warehouse.

The following image shows the class attributes for the Oracle Table class in the Metadata Manager web application:

Name	Description	Type
Name	An identifier for the ModelElement within its containing Namespace.	Name
Description	The description of the element	LongString
Business Name	Business Name of the object	String
Is Partitioned	Partitioned Flag	String
Class	This is a categorization of the object	String
Class Type	This is a categorization type of the object	String
Location	Location of an object in the catalog	String
Source Creation Date	Date on which the object was created in the source system	Date
Source Update Date	Date on which the object was last modified in the source system	Date
MM Creation Date	Date on which the object was created in the metadata repository	Date
MM Update Date	Date on which the object was last modified in the metadata repository	Date
More | Less Properties Divider	Reposition this row to determine the cut-off point for more/less property settings of the page	
Label	The display label of the element	String
Sub Type	The sub-type ofthe element	String

IMA_ELEMENT

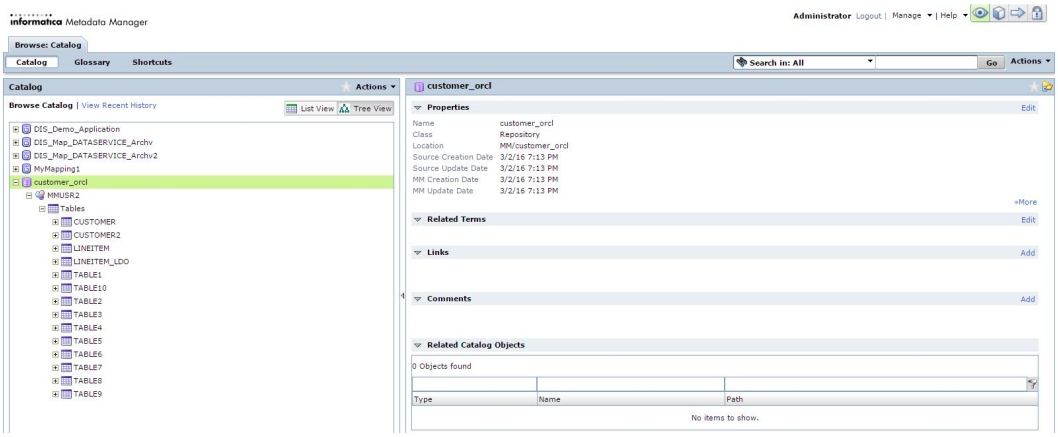
The IMA_ELEMENT view provides details about elements in the Metadata Manager warehouse. Elements are metadata objects. An element is the realization of a class.

The following table describes the columns in the IMA_ELEMENT view:

Column Name	Data Type	Description
REPOSITORY_UID	Number	Unique numeric ID that is assigned to the resource.
CLASS_UID	Number	Unique numeric ID of the element class.
ELEMENT_UID	Number	Unique numeric ID of the element.

Column Name	Data Type	Description
ELEMENT_ID	String	Unique name ID of the element.
ELEMENT_NAME	String	Name of the element.
NAME_PATH	String	Object path of the element in the metadata catalog, for example, `MM/Informix_12/informix/Functions/bloboutput`. The path begins with "MM," followed by the resource name. The remainder of the path indicates the location of the object within the metadata catalog hierarchy.
CLASS_ID	String	Unique name ID of the element class.
CLASS_NAME	String	Name of the class such as OracleColumn, OracleTable, or OracleView.
CLASS_LABEL	String	User-friendly name of the class.
CLASS_TYPE	String	Category such as Column, Table, or View.
CLASS_DESC	String	Description of the class.
REPOSITORY_NAME	String	Name of the resource to which the element belongs.
REPOSITORY_DESC	String	Description of the resource.
REPO_TYPE_NAME	String	Type of the resource that includes the element.
REPO_TYPE_DESC	String	Description of the resource type that includes the element.
PRODUCT_TYPE	String	Source system product type such as Data Integration or Data Modeling.
DELETED_FLAG	Character	Indicates whether the element is active or deleted. When the DELETED_FLAG is set to Y, the element has been deleted from the Metadata Manager warehouse. When the DELETED_FLAG is set to N, the element is active in the Metadata Manager warehouse.
SRC_CREATE_DT	Date	Date when the element was created in the source system.
SRC_UPDATE_DT	Date	Date when the element was last updated in the source system.
DW_INSERT_DT	Date	Date when the element was loaded in the Metadata Manager warehouse.
DW_UPDATE_DT	Date	Date when the element was last updated in the Metadata Manager warehouse.

The following image shows the elements, or metadata objects, in an Oracle resource in the Metadata Manager web application:



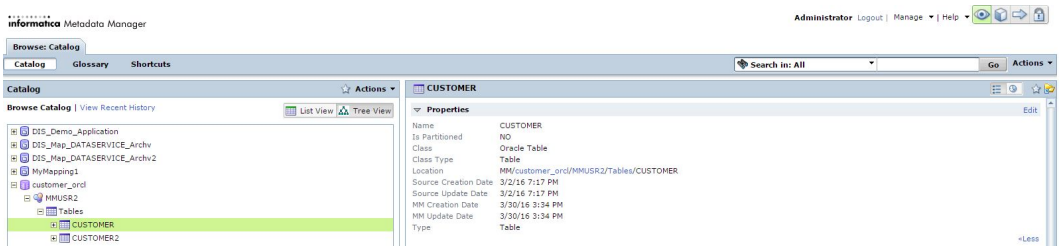
IMA_ELEMENT_ATTR

The IMA_ELEMENT_ATTR view provides information about the element attributes. Element attributes are the object attributes or properties. An element attribute is the realization of a class attribute.

The following table describes the columns in the IMA_ELEMENT_ATTR view:

Column Name	Data Type	Description
ELEMENT_UID	Number	Unique numeric ID of the element to which the attribute belongs.
CLASS_ATTR_NAME	String	Name of the class attribute.
CLASS_ATTR_DESC	String	Description of the class attribute.
DATA_TYPE	String	Data type of the attribute.
ELMNT_ATTR_VALUE	String	Value of the attribute.

The following image shows the attributes, or properties, of Oracle table CUSTOMER in the Metadata Manager web application:



IMA_ASSOCIATION

The IMA_ASSOCIATION view provides details about types of associations, or relationships, between different classes. Each association type in the Metadata Manager warehouse is represented as a row in the IMA_ASSOCIATION view. When a Metadata Manager user creates a custom association, a new entry appears in the IMA_ASSOCIATION view.

The following table describes the columns in the IMA_ASSOCIATION view:

Column Name	Data Type	Description
ASSOCIATION_UID	Number	Unique numeric ID for the type of the association.
PACKAGE_UID	Number	Unique numeric ID for the package that includes the association.
ORIGINATOR_UID	Number	Unique numeric ID for the owner of the model that includes the association.
ASSOCIATION_ID	String	Unique name ID of the association, for example, com.informatica.eerstudio2.Column_Key_PrimaryKey.
ASSOCIATION_NAME	String	Name of the association, for example, Table_PrimaryCandidateKey_Key.
ASSOCIATION_DESC	String	Description of the association.
FROM_CLASS_UID	Number	Unique numeric ID of the source class in the association.
FROM_CARDINALITY	String	Number instances of a source class that can exist in the association. The value * denotes that there is no restriction on the number of instances.
FROM_END_LABEL	String	User-friendly name or display label of the source class in the association.
FROM_END_DESC	String	Description of the source side of the association.
TO_CLASS_UID	Number	Unique numeric ID of the target class in the association.
TO_CARDINALITY	String	Number of instances of a target class that can exist in the association. The value * denotes that there is no restriction on number of instances.
TO_END_LABEL	String	User-friendly name or display label of the target class in the association..
TO_END_DESC	String	Description of the target side of the association.
ORDERED_FLAG	Character	Deprecated.
COMPOSITE_FLAG	Character	Deprecated.
AGGREGATE_FLAG	Character	Deprecated.
INST_CREATE_FLAG	Character	Deprecated.
INST_DELETE_FLAG	Character	Deprecated.
INST_CHANGE_FLAG	Character	Deprecated.
CREATED_BY	String	Name of the user who created the association.

Column Name	Data Type	Description
CREATED_ON	Date	Date when the association was created.
MODIFIED_BY	String	Name of the user who last modified the association.
MODIFIED_ON	Date	Date when the association was modified.

IMA_ELMNT_ASSOC

The IMA_ELMNT_ASSOC view provides details about the associations between elements. Associations between elements are non-lineage relationships such as parent-child relationships or database index-to-column relationships.

The following table describes the columns in the IMA_ELMNT_ASSOC view:

Column Name	Data Type	Description
FROM_CLASS_UID	Number	Unique numeric ID for the class of the source-side element in the association.
FROM_ELEMENT_UID	Number	Unique numeric ID for the source-side element in the association.
FROM_REPO_UID	Number	Unique numeric ID for the resource of the source-side element in the association.
TO_CLASS_UID	Number	Unique numeric ID for the class of the target-side element in the association.
TO_ELEMENT_UID	Number	Unique numeric ID for the target-side element in the association.
TO_REPO_UID	Number	Unique numeric ID for the resource of the target-side element in the association.
ASSOCIATION_UID	Number	Unique numeric ID for the association between the source and the target elements.
ASSOCIATION_SEQ	Number	Sequence number for each association between the source element and the target elements.
REPOSITORY_UID	Number	Unique numeric ID of the resource that includes the association.

IMA_CLASS_TREE

The IMA_CLASS_TREE view provides information about the ancestor class. Each class in the Metadata Manager warehouse is based on an ancestor class in the common warehouse metamodel.

The following table describes the columns in the IMA_CLASS_TREE view:

Column Name	Data Type	Description
CLASS_ID	String	Unique name ID of the class.
CLASS_UID	Number	Unique numeric ID of the class.
PRNT_CLASS_ID	String	Unique name ID of the ancestor class.
PRNT_CLASS_UID	Number	Unique numeric ID of the ancestor class.

IMA_RBL_LINKS

The IMA_RBL_LINKS view provides details about the objects that are linked with rule-based links. Rule-based links are specified in a linking rules XML file, which defines the associations between source and target ports.

The following table describes the columns in the IMA_RBL_LINKS view:

Column Name	Data Type	Description
SESSION_UID	Number	Unique numeric ID for the PowerCenter session associated with the linked port. **Note:** This column is valid for PowerCenter resources only.
SESSION_NAME	String	Name of the PowerCenter session associated with the linked port. **Note:** This column is valid for PowerCenter resources only.
MAPPING_UID	Number	Unique numeric ID for the PowerCenter mapping that contains the linked port. **Note:** This column is valid for PowerCenter resources only.
MAPPING_NAME	String	Name of the PowerCenter mapping that contains the linked port. **Note:** This column is valid for PowerCenter resources only.
SRC_NAME_PATH	String	Object path of the source object in the metadata catalog.
SRC_REPO_UID	Number	Unique numeric ID of the resource that contains of the source object being linked.
SRC_REPO_NAME	String	Name of the resource that contains the source object being linked.
SRC_STRUCT_UID	Number	Unique numeric ID of the source structure that contains the feature or port being linked.
SRC_STRUCT_NAME	String	Name of the source structure that contains the feature or port being linked.
SRC_FEATURE_UID	Number	Unique numeric ID of the source feature or port that is being linked.

Column Name	Data Type	Description
SRC_FEATURE_NAME	String	Name of the source feature or port that is being linked.
TGT_NAME_PATH	String	Object path of the target object in the metadata catalog.
TGT_REPO_UID	Number	Unique numeric ID of the resource that contains the target object that is being linked.
TGT_REPO_NAME	String	Name of the resource that contains the target object that is being linked.
TGT_STRUCT_UID	Number	Unique numeric ID of the target structure that contains the feature or port being linked.
TGT_STRUCT_NAME	String	Name of the target structure that contains the feature or port being linked.
TGT_FEATURE_UID	Number	Unique numeric ID of the target feature or port that is being linked.
TGT_FEATURE_NAME	String	Name of the target feature or port that is being linked.
RULE_SET_NAME	String	Rule set name specified in the linking rules XML file.
RULE_NAME	String	Name of the linking rule.

IMA_FEATURE_MAP

The IMA_FEATURE_MAP view provides details about the data lineage links in the Metadata Manager warehouse.

The IMA_FEATURE_MAP view provides details about the following types of data lineage links:

- Internal links. Internal links are created when you load resources.
- External links. External links are created when you link resources.

The following table describes the columns in the IMA_FEATURE_MAP view:

Column Name	Data Type	Description
REPOSITORY_UID	Number	Unique numeric ID of the resource that contains the object from which lineage link creation has been initiated.
TASK_UID	Number	Unique numeric ID of the PowerCenter session associated with the source or target port. **Note:** This column is valid for PowerCenter resources only.
TASK_CLASS_UID	Number	Unique numeric ID of the class of the PowerCenter session associated with the source or target port. **Note:** This column is valid for PowerCenter resources only.
TRANSFORM_UID	Number	Unique numeric ID of the mapping or mapplet that contains the source or target port. **Note:** This column is valid for PowerCenter resources only.

Column Name	Data Type	Description
TRANSFORM_CLASS_UID	Number	Unique numeric ID of the class of the mapping or mapplet that contains the source or target port. **Note:** This column is valid for PowerCenter resources only.
MAP_UID	Number	Unique numeric ID of the expression associated with the struct that contains the feature or port in the link.
MAP_CLASS_UID	Number	Unique numeric ID of the class of the expression associated with the struct that contains the feature or port in the link.
FEATURE_MAP_UID	Number	Unique numeric ID of the expression associated with the feature or port in the link.
FEATURE_CLASS_UID	Number	Unique numeric ID of the class of the expression associated with the feature or port in the link.
SOURCE_STRUCT_UID	Number	Unique numeric ID of the struct that contains the source-side feature or port in the link.
SOURCE_CLASS_UID	Number	Unique numeric ID of the class of the struct that contains the source-side feature or port in the link.
SOURCE_REPO_UID	Number	Unique numeric ID of the resource that contains the source-side feature or port in the link.
SRC_FEATURE_UID	Number	Unique numeric ID of the source-side feature or port in the link.
SRC_FEAT_CLASS_UID	Number	Unique numeric ID of the class of the source-side feature or port.
TARGET_STRUCT_UID	Number	Unique numeric ID of the struct that contains the target-side feature or port in the link.
TARGET_CLASS_UID	Number	Unique numeric ID of the class of the struct that contains the target-side feature or port in the link.
TARGET_REPO_UID	Number	Unique numeric ID of the resource that contains the target-side feature or port in the link.
TGT_FEATURE_UID	Number	Unique numeric ID of the target-side feature or port in the link.
TGT_FEAT_CLASS_UID	Number	Unique numeric ID of the class of the target-side feature or port.
DELETED_FLAG	Character	Indicates whether the lineage link is active or deleted. When the DELETED_FLAG is set to Y, the link has been deleted from the Metadata Manager warehouse. When the DELTED_FLAG is set to N, the link is active in the Metadata Manager warehouse.
DW_INSERT_DT	Date	Date when the lineage link was created in the Metadata Manager warehouse.
DW_UPDATE_DT	Date	Date when the lineage link was last updated in Metadata Manager warehouse.

Column Name	Data Type	Description
EXTERNAL_FLAG	Character	Indicates whether an external entity has created the link. For example, when a user creates a link for a Business Glossary term or custom object by editing the related catalog objects and selecting the related objects, the link is external. When a user creates a link through the Object Relationships Wizard, the link is external. When the EXTERNAL_FLAG is set to Y, the link is external. When the EXTERNAL_FLAG is set to N, the link is internal.
PROPAGATED_FLAG	Character	Indicates whether the link was created through propagation. For example, a user links a business term or custom object to a reusable transformation. A propagated link is created for each transformation instance.
ENUMERATED_LINK_FLAG	Character	Indicates whether the link was created through enumerated linking.
RULE_SET_UID	Number	Unique numeric ID of the rule set when the link was created through rule-based links.
RULE_UID	Number	Unique numeric ID of the linking rule when the link was created through rule-based links.

CHAPTER 2

Sample Queries

This chapter includes the following topics:

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Sample Queries Overview

This chapter provides sample queries to help you analyze metadata stored in the Metadata Manager warehouse. This chapter includes one or more sample queries for each Metadata Manager view.

When a sample query references multiple views, the query is listed under the view in the primary FROM clause.

For example, a query has the following structure:

```
SELECT ...
FROM ima_element schemas
JOIN ima_elmnt_assoc schemaassoc ON schemas.element_uid = schemaassoc.from_element_uid
JOIN ima_element tables
...
WHERE ...
```

The query is listed under the IMA_ELEMENT sample queries and not under the IMA_ELMNT_ASSOC sample queries.

IMA_REPO_TYPE Sample Query

The IMA_REPO_TYPE view provides details about the resource types in the Metadata Manager warehouse.

The following query uses the REPO_TYPE_ID to get details about the Oracle resource type:

```
SELECT repo_type_id, repo_type_name, repo_type_desc, repo_type_owner, repo_type_version,
deleted_flag, default_icon, product_type, created_by, created_on
FROM ima_repo_type
WHERE REPO_TYPE_ID= 'Oracle'
```

The following image shows the query results:

Query Result

SQL | All Rows Fetched: 1 in 0.207 seconds

	REPO_TYPE_ID	REPO_TYPE_NAME	REPO_TYPE_DESC	REPO_TYPE_OWNER	REPO_TYPE_VERSION	DELETED_FLAG	DEFAULT_ICON	PRODUCT_TYPE	CREATED_BY	CREATED_ON
1	Oracle	Oracle	Oracle Database Repository Type	Informatica	1	N	/rdbms/orcl_database.gif	Database Management	admin	25-DEC-03

IMA_REPOSITORY Sample Query

The IMA_REPOSITORY view provides information about resources that are loaded in the Metadata Manager warehouse. Each resource in the Metadata Manager warehouse is represented as a row in the IMA_REPOSITORY view.

The following query lists all active resources by type:

```
SELECT repository_name, repository_desc, repo_type_name, product_type
FROM ima_repository
WHERE deleted_flag = 'N'
ORDER BY product_type, repository_name
```

The following image shows the query results:

Query Result

SQL | Fetched 50 rows in 0.034 seconds

	REPOSITORY_NAME	REPOSITORY_DESC	REPO_TYPE_NAME	PRODUCT_TYPE
1	sap5	(null)	SAP	Application
2	sap6_UI	This is edited by UI Automation	SAP	Application
3	BG_StoryS72277	(null)	BusinessGlossary	Business Glossary
4	Bg_Cities	(null)	BusinessGlossary	Business Glossary
5	Glossary1	Glossary1	BusinessGlossary	Business Glossary
6	Auto_Bo_12.1SP3	BO 12.3	Business Objects	Business Intelligence
7	Auto_Bo_12.1_UI	This is edited by UI Automation	Business Objects	Business Intelligence
8	Auto_Bo_4.0	(null)	Business Objects	Business Intelligence

IMA_ORIGINATOR Sample Query

The IMA_ORIGINATOR view provides details about the originator. The originator is the owner of the model. When you create a custom model, you typically add an originator.

The following query uses the ORIGINATOR_ID to get details about the model owner:

```
SELECT  ORIGINATOR_ID, ORIGINATOR_NAME, ORIGINATOR_DESC, DOMAIN_NAME, ORIGINATOR_URL,
CONTACT_NAME, EMAIL, PHONE, CREATED_BY, CREATED_ON, MODIFIED_BY, MODIFIED_ON
FROM ima_originator
WHERE ORIGINATOR_ID = 'com.informatica'
```

The following image shows the query results:

Query Result

All Rows Fetched: 1 in 0.015 seconds

	ORIGINATOR_ID	ORIGINATOR_NAME	ORIGINATOR_DESC	DOMAIN_NAME	ORIGINATOR_URL	CONTACT_NAME	EMAIL	PHONE	CREATED_BY	CREATED_ON	MODIFIED_BY	MODIFIED_ON
1	com.informatica	Informatica Corporation	Informatica corporation	informatica.com	http://www.informatica.com	(null)	mbarroleza@informatica.com	650-385-5000	admin	18-DEC-03	admin	18-DEC-03

IMA_PACKAGE Sample Query

The IMA_PACKAGE view provides details about packages in the Metadata Manager warehouse. A package is a collection of classes.

The following query uses the PACKAGE_ID to get details about package com.informatica.oracle.oracledatabase:

```
SELECT package_id, package_name, package_desc, package_owner, package_version,
created_by, created_on, deleted_flag, originator_id, originator_name
FROM ima_package
WHERE PACKAGE_ID = 'com.informatica.oracle.oracledatabase'
```

The following image shows the query results:

Query Result

All Rows Fetched: 1 in 0.031 seconds

	PACKAGE_ID	PACKAGE_NAME	PACKAGE_DESC	PACKAGE_OWNER	PACKAGE_VERSION	CREATED_BY	CREATED_ON	DELETED_FLAG	ORIGINATOR_ID	ORIGINATOR_NAME
1	com.informatica.oracle.oracledatabase	OracleDatabase	Oracle Database	Informatica corporation	1.0	admin	25-DEC-03	N	com.informatica	Informatica Corporation

IMA_REPO_PACKAGE Sample Query

The IMA_REPO_PACKAGE view provides a collection of packages that are associated with the resource types.

The following query uses the REPO_TYPE_ID to get details about the packages associated with the Oracle resource type:

```
SELECT repo_type_id, repo_type_name, repo_type_desc, package_id, package_name,
package_desc
FROM ima_repo_package
WHERE repo_type_id= 'Oracle'
```

The following image shows the query results:

Query Result

All Rows Fetched: 3 in 0.047 seconds

	REPO_TYPE_ID	REPO_TYPE_NAME	REPO_TYPE_DESC	PACKAGE_ID	PACKAGE_NAME	PACKAGE_DESC
1	Oracle	Oracle	Oracle Database Repository Type	com.informatica.oracle	Oracle	Oracle database catalog
2	Oracle	Oracle	Oracle Database Repository Type	com.informatica.oracle.oracledatabase	OracleDatabase	Oracle Database
3	Oracle	Oracle	Oracle Database Repository Type	com.informatica.oracle.oracleserver	OracleServer	Oracle Server

IMA_CLASS Sample Query

The IMA_CLASS view provides information about classes in the models in the Metadata Manager warehouse. Each class in a model is represented as a row in the IMA_CLASS view.

The following query gets details about the classes in the Oracle model:

```
SELECT package_name, class_name, class_label, class_desc, class_id
FROM ima_class
WHERE package_name = 'OracleDatabase' AND deleted_flag = 'N'
```

The following image shows the query results:

Query Result

All Rows Fetched: 22 in 0.032 seconds

	PACKAGE_NAME	CLASS_NAME	CLASS_LABEL	CLASS_DESC	CLASS_ID
1	OracleDatabase	OracleExpression	Oracle Expression	This represents the expression that maps a target to source(s)	com.informatica.oracle.oracledatabase.OracleExpression
2	OracleDatabase	OracleMaterializedView	Oracle Materialized View	Materialized View or a Snapshot Table	com.informatica.oracle.oracledatabase.OracleMaterializedView
3	OracleDatabase	OracleFunction	Oracle Function	A PL/SQL subprogram that executes an operation and returns a value at the comple...	com.informatica.oracle.oracledatabase.OracleFunction
4	OracleDatabase	OracleIndex	Oracle Index	An index is a special database object that lets you quickly locate particular re...	com.informatica.oracle.oracledatabase.OracleIndex
5	OracleDatabase	OracleIndexColumn	Oracle Index Column	Component of an Index (see definition of Index) as Column is a component of a Ta...	com.informatica.oracle.oracledatabase.OracleIndexColumn
6	OracleDatabase	OraclePackage	Oracle Package	A method of encapsulating and storing related procedures, functions, and other p...	com.informatica.oracle.oracledatabase.OraclePackage
7	OracleDatabase	OraclePrimaryKeyConstraint	Oracle Primary Key	Integrity constraint that disallows duplicate values and nulls in a column or se...	com.informatica.oracle.oracledatabase.OraclePrimaryKeyConstraint
8	OracleDatabase	OracleProcedure	Oracle Procedure	A set of SQL and PL/SQL statements grouped together as an executable unit to per...	com.informatica.oracle.oracledatabase.OracleProcedure
9	OracleDatabase	OracleSchema	Oracle Schema	The class Oracle Schema represents the Database user. This class is derived from...	com.informatica.oracle.oracledatabase.OracleSchema
10	OracleDatabase	OracleSchemaTrigger	Oracle Schema Trigger	Oracle Schema Trigger	com.informatica.oracle.oracledatabase.OracleSchemaTrigger

IMA_CLASS_ATTR Sample Query

The IMA_CLASS_ATTR view provides information about the class attributes. Each attribute in the class is represented as a row in the IMA_CLASS_ATTR view.

The following query uses the CLASS_ID to get the attributes of the Oracle View class in the Oracle model:

```
SELECT prnt_class_name, class_id, class_name, attribute_name, ima_package.package_id
FROM ima_class_attr, ima_package
WHERE class_id = 'com.informatica.oracle.oracledatabase.OracleView' AND
ima_package.package_uid= ima_class_attr.package_uid
```

The following image shows the query results:

Query Result

All Rows Fetched: 18 in 0.328 seconds

	PRNT_CLASS_NAME	CLASS_ID	CLASS_NAME	ATTRIBUTE_NAME	PACKAGE_ID
1	ModelElement	com.informatica.oracle.oracledatabase.OracleView	OracleView	businessName	com.informatica.oracle.oracledatabase
2	ModelElement	com.informatica.oracle.oracledatabase.OracleView	OracleView	visibility	com.informatica.oracle.oracledatabase
3	ModelElement	com.informatica.oracle.oracledatabase.OracleView	OracleView	name	com.informatica.oracle.oracledatabase
4	ModelElement	com.informatica.oracle.oracledatabase.OracleView	OracleView	infa_subType	com.informatica.oracle.oracledatabase
5	ModelElement	com.informatica.oracle.oracledatabase.OracleView	OracleView	infa_type	com.informatica.oracle.oracledatabase
6	ModelElement	com.informatica.oracle.oracledatabase.OracleView	OracleView	infa_usage	com.informatica.oracle.oracledatabase
7	ModelElement	com.informatica.oracle.oracledatabase.OracleView	OracleView	infa_description	com.informatica.oracle.oracledatabase
8	ModelElement	com.informatica.oracle.oracledatabase.OracleView	OracleView	infa_alias	com.informatica.oracle.oracledatabase
9	ModelElement	com.informatica.oracle.oracledatabase.OracleView	OracleView	infa_label	com.informatica.oracle.oracledatabase
10	Class	com.informatica.oracle.oracledatabase.OracleView	OracleView	nativeType	com.informatica.oracle.oracledatabase
11	Classifier	com.informatica.oracle.oracledatabase.OracleView	OracleView	isAbstract	com.informatica.oracle.oracledatabase
12	Transformation	com.informatica.oracle.oracledatabase.OracleView	OracleView	functionDescription	com.informatica.oracle.oracledatabase
13	Transformation	com.informatica.oracle.oracledatabase.OracleView	OracleView	function	com.informatica.oracle.oracledatabase
14	Transformation	com.informatica.oracle.oracledatabase.OracleView	OracleView	isPrimary	com.informatica.oracle.oracledatabase

IMA_ELEMENT Sample Queries

The IMA_ELEMENT view provides details about elements in the Metadata Manager warehouse. Elements are metadata objects. An element is the realization of a class.

You can query the IMA_ELEMENT view to complete the following tasks:

- Get details about objects in a resource.
- List PowerCenter tables with lineage links.
- List objects that have been recently created, updated, or deleted.
- Get details about data structures in relational resources.

Get Details about Resource Objects

You can query the IMA_ELEMENT view to get details about the objects in a resource.

The following query gets details about active objects in resource Auto_Oracle2:

```
SELECT element_name, name_path, class_name, class_label
FROM ima_element
WHERE repository_name = 'Auto_Oracle2' AND and deleted_flag = 'N'
ORDER BY element_name
```

The following image shows the query results:

Query Result

SQL | Fetched 50 rows in 16.323 seconds

	ELEMENT_NAME	NAME_PATH	CLASS_NAME	CLASS_LABEL
1	ACTLEXTND	MM/Auto_Oracle2/MURALI/Tables/D1_ORDERS2/Columns/ACTLEXTND	OracleColumn	Oracle Column
2	ACTLEXTND	MM/Auto_Oracle2/MURALI/Tables/D1_ORDERS2_F/Columns/ACTLEXTND	OracleColumn	Oracle Column
3	ACT_PRODUCT_QTY	MM/Auto_Oracle2/MURALI/Tables/F_LR_TRADE/Columns/ACT_PRODUCT_QTY	OracleColumn	Oracle Column
4	ADAC_UNIT_ID	MM/Auto_Oracle2/MURALI/Tables/D_FIN_ORG_COB/Columns/ADAC_UNIT_ID	OracleColumn	Oracle Column
5	ADAC_UNIT_NAME	MM/Auto_Oracle2/MURALI/Tables/D_FIN_ORG_COB/Columns/ADAC_UNIT_NAME	OracleColumn	Oracle Column
6	ADDRESS	MM/Auto_Oracle2/MURALI/Tables/D1_CUSTOMER2/Columns/ADDRESS	OracleColumn	Oracle Column
7	AFFILIATE_ID	MM/Auto_Oracle2/MURALI/Tables/D_COUNTERPARTY_COB/Columns/AFFILIATE_ID	OracleColumn	Oracle Column
8	BALANCE_BASIS_TYPE_CD	MM/Auto_Oracle2/MURALI/Tables/F_LR_TRADE/Columns/BALANCE_BASIS_TYPE_CD	OracleColumn	Oracle Column
9	BAS2_IND_TYP	MM/Auto_Oracle2/MURALI/Tables/D_COUNTERPARTY_COB/Columns/BAS2_IND_TYP	OracleColumn	Oracle Column
10	BAS2_REG	MM/Auto_Oracle2/MURALI/Tables/D_COUNTERPARTY_COB/Columns/BAS2_REG	OracleColumn	Oracle Column
11	BOH_DLL	MM/Auto_Oracle2/MM_PERF6/Tables/INVENTORY_Q1_2004/Columns/BOH_DLL	OracleColumn	Oracle Column
12	BOH_DLL	MM/Auto_Oracle2/MM_PERF6/Tables/INVENTORY_Q4_2005/Columns/BOH_DLL	OracleColumn	Oracle Column

List PowerCenter Tables with Lineage Links

You can query the IMA_ELEMENT view to find linked tables in a PowerCenter resource.

For example, you want to find the Oracle tables in a PowerCenter resource that are linked as sources, targets, or lookups. You can view the Missing Link Details worksheet to see which objects are not linked, but there is no worksheet that lists the linked objects. To find the linked objects, query the IMA_ELEMENT view.

The following query gets the Oracle tables that have data lineage links to and from other resources:

```
SELECT element_name, name_path, element_id, 'write' AS action
FROM ima_element
WHERE
      element_uid in (SELECT DISTINCT target_struct_uid
FROM imw_feature_map WHERE target_class_uid =
(SELECT class_uid FROM ima_class WHERE
class_id = 'com.informatica.oracle.oracledatabase.OracleTable')
)
UNION ALL
SELECT element_name, name_path, element_id, 'read' AS action
FROM ima_element
WHERE
```

```
element_uid IN (SELECT DISTINCT source_struct_uid
FROM imw_feature_map WHERE source_class_uid =
(SELECT class_uid FROM ima_class WHERE
class_id = 'com.informatica.oracle.oracledatabase.OracleTable')
)
ORDER BY element_id, action
```

The following image shows the query results:

Element_Name	Name_Path	Element_Id	Action
PO_HEADER	MM/Legacy - Oracle/B2BDX_DATA/Tables/PO_HEADER	B2BDX_DATA.PO_HEADER	read
PO_HEADER	MM/Legacy - Oracle/B2BDX_DATA/Tables/PO_HEADER	B2BDX_DATA.PO_HEADER	write
PO_ITEM_DETAILS	MM/Legacy - Oracle/B2BDX_DATA/Tables/PO_ITEM_DETAILS	B2BDX_DATA.PO_ITEM_DETAILS	write
ACCOUNT_DATA	MM/Legacy - Oracle/BAE/Tables/ACCOUNT_DATA	BAE.ACCOUNT_DATA	write
AGGREGATE_TEST	MM/Legacy - Oracle/BAE/Tables/AGGREGATE_TEST	BAE.AGGREGATE_TEST	write
CLEAN_SALESFORCE_DATA	MM/Legacy - Oracle/BAE/Tables/CLEAN_SALESFORCE_DATA	BAE.CLEAN_SALESFORCE_DATA	write
DICTIONARY	MM/Legacy - Oracle/BAE/Tables/DICTIONARY	BAE.DICTIONARY	write
FINDATA	MM/Legacy - Oracle/BAE/Tables/FINDATA	BAE.FINDATA	read
FINDATA	MM/Legacy - Oracle/BAE/Tables/FINDATA	BAE.FINDATA	write
ORCL_ACCOUNT	MM/Legacy - Oracle/BAE/Tables/ORCL_ACCOUNT	BAE.ORCL_ACCOUNT	write
ORG_DIM	MM/Legacy - Oracle/BAE/Tables/ORG_DIM	BAE.ORG_DIM	read
ORG_DIM	MM/Legacy - Oracle/BAE/Tables/ORG_DIM	BAE.ORG_DIM	write
RTM_REFERENCE_TABLE_DEFAULTS	MM/Legacy - Oracle/BAE/Tables/RTM_REFERENCE_TABLE_DEFAULTS	BAE.RTM_REFERENCE_TABLE_DEFAULTS	write

To find linked tables for other database types, specify a different database type in the class_id. For example, for a Teradata database, use the following class_id:

```
class_id=com.informatica.terdata.teradatabase.TeradataTable
```

List Recently Changed Objects

You can query the IMA_ELEMENT view to list objects that have been recently created, updated, or deleted.

The following query lists the objects that have changed during the last 25 days:

```
SELECT
  element_uid
, NVL(name_path, element_name || ' (' || class_name || ')') AS element_name
, repository_name
, class_name
  -- Work around the fact that name_path is null for deleted objects.
, dw_update_dt
, DECODE(deleted_flag
, 'Y', 'Delete'
, 'N', CASE WHEN DW_INSERT_DT = DW_UPDATE_DT THEN 'Insert' ELSE 'Update' END
, '?'
) AS change_indicator
FROM ima_element
WHERE
      repository_name != 'MM'  -- Exclude resource level elements.
AND   dw_update_dt > SYSDATE - 25   -- Date range. (This example uses current system
date - nn days.)
-- Add other filters here like repository_name, etc...
ORDER BY 3,2;
```

Get Details about Relational Data Structures

You can query the IMA_ELEMENT view to get information about relational data structures such as schemas, tables, views, columns, and column data types.

The following query creates a dictionary type of report that shows the database details for standard relational and JDBC resources. It shows the joins that you need to connect multiple class types through the IMA_ELMNT_ASSOC view.

The following query gets database details for schemas, tables, views, columns, and column properties:

```
-- Get a DBMS data structre result set - schema,table,column,column data types - for
standard and jdbc resource types.
SELECT
        tables.repository_name AS resourceName,
        tables.repo_type_name AS resourceType,
        schemas.element_name AS schema_Name,
        tables.element_name AS table_Name,
        tables.class_type AS table_type,
        columns.element_name AS column_Name,
        columns.element_uid AS column_uid,
          -- Column attributes
        (SELECT ea.elmnt_attr_value FROM ima_elmnt_attr ea
           WHERE     ea.class_attr_name IN ('infa_description', 'Comment')
                 AND ea.element_uid = columns.element_uid
                 AND ROWNUM = 1) AS description,
        (SELECT ea.elmnt_attr_value FROM ima_elmnt_attr ea
           WHERE      ea.class_attr_name IN ('datatype', 'Datatype')
                 AND ea.element_uid = columns.element_uid
                 AND ROWNUM = 1) AS datatype,
        (SELECT ea.elmnt_attr_value FROM ima_elmnt_attr ea
           WHERE     ea.class_attr_name IN ( 'isNullable', 'Nullable')  -- Regular DBMS
+ JDBC
                 AND ea.element_uid = columns.element_uid
                 AND ROWNUM = 1) AS isNullable,
        (SELECT ea.elmnt_attr_value FROM ima_elmnt_attr ea
           WHERE    ea.class_attr_name IN ('length', 'DatatypeLength') -- Standard DBMS
+ JDBC
                 AND ea.element_uid = columns.element_uid
                 AND ROWNUM = 1) AS length,
        (SELECT ea.elmnt_attr_value FROM ima_elmnt_attr ea
           WHERE     ea.class_attr_name = 'precision'
                 AND ea.element_uid = columns.element_uid
                 AND ROWNUM = 1) AS precision,
        (SELECT ea.elmnt_attr_value FROM ima_elmnt_attr ea
           WHERE    ea.class_attr_name IN ('scale', 'DatatypeScale')
                 AND ea.element_uid = columns.element_uid
                 AND ROWNUM = 1) AS scale
        -- Add additional term properties as needed, like description above.
FROM ima_element schemas
      JOIN ima_elmnt_assoc schemaassoc ON schemas.element_uid =
schemaassoc.from_element_uid
      JOIN ima_element tables ON schemaassoc.to_element_uid = tables.element_uid AND
tables.deleted_flag = 'N'
      JOIN ima_elmnt_assoc table_assoc ON tables.element_uid =
table_assoc.from_element_uid
      JOIN ima_element columns ON table_assoc.to_element_uid = columns.element_uid AND
columns.deleted_flag = 'N'
WHERE schemas.product_type = 'Database Management'
AND schemas.class_type = 'Schema'
AND schemas.deleted_flag = 'N'
AND (tables.class_type = 'View' or tables.class_type = 'Table')  -- Add table filter if
tables should be returned too.
AND tables.deleted_flag = 'N'
AND columns.class_type = 'Column'
AND columns.deleted_flag = 'N'
ORDER BY Schema_Name, table_Name, Column_Name
;
```

IMA_ELEMENT_ATTR Sample Queries

The IMA_ELEMENT_ATTR view provides information about the element attributes. Element attributes are the object attributes or properties. An element attribute is the realization of a class attribute.

You can query the IMA_ELEMENT_ATTR view to complete the following tasks:

- Get details about the elements and attributes of a class.
- Get details about relational columns.

Get Details about Elements and Attributes

You can query the IMA_ELEMENT_ATTR view to get details about the elements and attributes of a class.

The following query gets details about the elements and attributes with class attribute name infa_description:

```
SELECT element_id, class_attr_name, class_attr_desc, data_type, elmnt_attr_value
FROM ima_elmnt_attr, ima_element
WHERE class_attr_name = 'infa_description' AND ima_element.element_uid =
ima_elmnt_attr.element_uid
```

The following image shows the query results:

Query Result

SQL | Fetched 50 rows in 18.114 seconds

	ELEMENT_ID	CLASS_ATTR_NAME	CLASS_ATTR_DESC	DATA_TYPE	ELMNT_ATTR_VALUE
1	Auto_Oracle2	infa_description	The description of the element	LongString	(null)
2	Netezza	infa_description	The description of the element	LongString	(null)
3	Teradata14	infa_description	The description of the element	LongString	(null)
4	sap5	infa_description	The description of the element	LongString	(null)
5	Auto_Db2_9.5	infa_description	The description of the element	LongString	(null)
6	Auto_Db2_9.7	infa_description	The description of the element	LongString	(null)
7	IMM_MASTER_REPOSITORY	infa_description	The description of the element	LongString	Metadat Repository
8	SAP70/634e767b84d3773e4f040705090126 8a	infa_description	The description of the element	LongString	Status for Multiversioning from Hierarchies
9	SAP70/867d2e61fbf02c7ad16c29433b87341f	infa_description	The description of the element	LongString	Status for Multiversioning from Hierarchies
10	SAP70/aab8035fd3eb9bc5cce8982faa07d273	infa_description	The description of the element	LongString	Time attribute
11	SAP70/f81d14b223ea7973a28a2513d42b9e1e	infa_description	The description of the element	LongString	Short Description
12	SAP70/4380dc7f5b998c0f90adde2a3df752cb	infa_description	The description of the element	LongString	Language Key
13	SAP70/9f2174b4b140b00700a5647317e719d4	infa_description	The description of the element	LongString	Number of Records
14	SAP70/275ae844b8f7fea1e89bc285c66595d8	infa_description	The description of the element	LongString	Characterstics for unicode testing

Get Relational Column Details

You can query the IMA_ELEMENT_ATTR view to get details about relational columns.

For example, you want to list the data type, nulls, length, precision and scale for all columns in a relational resource. When you include attributes for columns in a query, select each attribute individually as a sub-query.

For example, the following query lists the data type, nulls, length, precision, and scale for all columns in resource Oracle:

```
SELECT
          el.element_name,
          el.element_uid,
          el.name_path,
          (SELECT ea.elmnt_attr_value
           FROM ima_elmnt_attr ea
           WHERE     ea.class_attr_name = 'infa_description'
                 AND ea.element_uid = el.element_uid
                 AND ROWNUM = 1)
             AS description,
          (SELECT ea.elmnt_attr_value
           FROM ima_elmnt_attr ea
           WHERE     ea.class_attr_name = 'datatype'
                 AND ea.element_uid = el.element_uid
                 AND ROWNUM = 1)
```

```
            AS datatype,
          (SELECT ea.elmnt_attr_value
           FROM ima_elmnt_attr ea
           WHERE     ea.class_attr_name = 'isNullable'
                 AND ea.element_uid = el.element_uid
                 AND ROWNUM = 1)
            AS isNullable,
          (SELECT ea.elmnt_attr_value
           FROM ima_elmnt_attr ea
           WHERE     ea.class_attr_name = 'length'
                 AND ea.element_uid = el.element_uid
                 AND ROWNUM = 1)
            AS length,
          (SELECT ea.elmnt_attr_value
           FROM ima_elmnt_attr ea
           WHERE     ea.class_attr_name = 'precision'
                 AND ea.element_uid = el.element_uid
                 AND ROWNUM = 1)
            AS precision,
          (SELECT ea.elmnt_attr_value
           FROM ima_elmnt_attr ea
           WHERE     ea.class_attr_name = 'scale'
                 AND ea.element_uid = el.element_uid
                 AND ROWNUM = 1)
            AS scale
FROM ima_element el
WHERE el.class_type = 'Column'
     AND repository_name = 'Oracle'  ORDER BY element_name, repository_name
```

The following image shows the query results:

ELEMENT_NAME	ELEMENT_UID	NAME_PATH	DESCRIPTION	DATATYPE	ISNULLABLE	LENGTH	PRECISION	SCALE
ACCOUNTNUMBER	1000123	MM/Oracle/BAE/Tables/ORCL_ACCOUNT/Columns/ACCOUNTNUMBER			Y	40		
ACTIVE__C	1000066	MM/Oracle/BAE/Tables/ORCL_ACCOUNT/Columns/ACTIVE__C			Y	255		
ACTUAL_COST	1000042	MM/Oracle/BAE/Tables/FINDATA/Columns/ACTUAL_COST		NUMBER	Y	22	10	5
ACTUAL_COST	1000042	MM/Oracle/CLONE/Synonyms/SYN_FINDATA/Columns/ACTUAL_COST		NUMBER	Y	22	10	5
ACTUAL_COST	1000131	MM/Oracle/BAE/Views/V_FINDATA/Columns/ACTUAL_COST		NUMBER	Y	22	10	5
ACTUAL_HR	1000046	MM/Oracle/BAE/Tables/TRANSACTIONS/Columns/ACTUAL_HR		NUMBER	Y	22	15	5
ACTUAL_HR	1000089	MM/Oracle/CLONE/Synonyms/SYN_FINDATA/Columns/ACTUAL_HR		NUMBER	Y	22	10	5
ACTUAL_HR	1000111	MM/Oracle/BAE/Views/V_FINDATA/Columns/ACTUAL_HR		NUMBER	Y	22	10	5
ACTUAL_HR	1000089	MM/Oracle/BAE/Tables/FINDATA/Columns/ACTUAL_HR		NUMBER	Y	22	10	5
ACT_LAB_COST	1000094	MM/Oracle/BAE/Views/V_FINDATA/Columns/ACT_LAB_COST		NUMBER	Y	22	10	5
ACT_LAB_COST	1000147	MM/Oracle/BAE/Tables/FINDATA/Columns/ACT_LAB_COST		NUMBER	Y	22	10	5
ACT_LAB_COST	1000147	MM/Oracle/CLONE/Synonyms/SYN_FINDATA/Columns/ACT_LAB_COST		NUMBER	Y	22	10	5
ADDRESS	1000025	MM/Oracle/BAE/Tables/CLEAN_SALESFORCE_DATA/Columns/ADDRESS			Y	72		
ADDRESS	1000069	MM/Oracle/BAE/Tables/ACCOUNT_DATA/Columns/ADDRESS			Y	72		

IMA_ASSOCIATION Sample Query

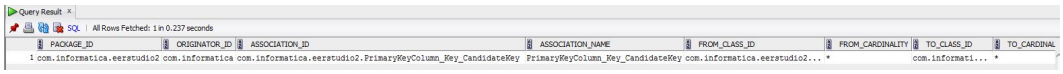
The IMA_ASSOCIATION view provides details about types of associations, or relationships, between different classes. Each association type in the Metadata Manager warehouse is represented as a row in the IMA_ASSOCIATION view. When a Metadata Manager user creates a custom association, a new entry appears in the IMA_ASSOCIATION view.

The following query uses the ASSOCIATION_ID to get details about association com.informatica.eerstudio2.PrimaryKeyColumn_Key_CandidateKey:

```
SELECT
(SELECT package_id FROM ima_package WHERE ima_association.package_uid =
ima_package.package_uid
) AS package_id,
(SELECT originator_id FROM ima_originator WHERE ima_association.originator_uid =
ima_originator.originator_uid
) AS originator_id, association_id, association_name,
(SELECT class_id FROM ima_class WHERE ima_association.from_class_uid =
ima_class.class_uid
) AS from_class_id, from_cardinality,
(SELECT class_id FROM ima_class WHERE ima_association.to_class_uid = ima_class.class_uid
) AS to_class_id, to_cardinality
```

```
FROM ima_association
WHERE association_id = 'com.informatica.eerstudio2.PrimaryKeyColumn_Key_CandidateKey'
```

The following image shows the query results:



	PACKAGE_ID	ORIGINATOR_ID	ASSOCIATION_ID	ASSOCIATION_NAME	FROM_CLASS_ID	FROM_CARDINALITY	TO_CLASS_ID	TO_CARDINAL
1	com.informatica.eerstudio2	com.informatica	com.informatica.eerstudio2.PrimaryKeyColumn_Key_CandidateKey	PrimaryKeyColumn_Key_CandidateKey	com.informatica.eerstudio2...	*	com.informati...	*

IMA_ELMNT_ASSOC Sample Query

The IMA_ELMNT_ASSOC view provides details about the associations between elements. Associations between elements are non-lineage relationships such as parent-child relationships and database index-to-column relationships.

The following query lists the non-lineage relationships for Oracle resource Auto_Oracle2:

```
SELECT
  (SELECT repository_id
  FROM ima_repository
  WHERE ima_repository.repository_uid = ima_elmnt_assoc.repository_uid
  ) AS REPOSITORY_ID,
  (SELECT class_id
  FROM ima_class
  WHERE ima_class.class_uid = ima_elmnt_assoc.from_class_uid
  ) AS FROM_CLASS_ID,
  (SELECT element_id
  FROM ima_element
  WHERE ima_element.element_uid = ima_elmnt_assoc.from_element_uid
  ) AS FROM_ELEMENT_ID,
  (SELECT repository_id
  FROM ima_repository
  WHERE ima_repository.repository_uid = ima_elmnt_assoc.from_repo_uid
  ) AS FROM_REPO_ID,
  (SELECT class_id
  FROM ima_class
  WHERE ima_class.class_uid = ima_elmnt_assoc.to_class_uid
  ) AS TO_CLASS_ID,
  (SELECT element_id
  FROM ima_element
  WHERE ima_element.element_uid = ima_elmnt_assoc.to_element_uid
  ) AS TO_ELEMENT_ID,
  (SELECT repository_id
  FROM ima_repository
  WHERE ima_repository.repository_uid = ima_elmnt_assoc.to_repo_uid
  ) AS TO_REPO_ID,
  (SELECT association_id
  FROM ima_association
  WHERE ima_association.association_uid = ima_elmnt_assoc.association_uid
  ) AS ASSOCIATION_ID,
  association_seq
FROM ima_elmnt_assoc,
  ima_repository
WHERE ima_elmnt_assoc.REPOSITORY_UID =
  (SELECT REPOSITORY_UID
  FROM ima_repository
  WHERE REPOSITORY_ID = 'Auto_Oracle2'
  )
```

The following image shows the query results:

Query Result | SQL | Fetched 50 rows in 0.094 seconds

	REPOSITORY_ID	FROM_CLASS_ID	FROM_ELEMENT_ID	FROM_REPO_ID	TO_CLASS_ID	TO_ELEMENT_ID	TO_REPO_ID	ASSOCIATION_ID
1	Auto_Oracle2	com.informatica.oracle.oracledatabase.Oracl...	MURALI.D_PRODUCT	Auto_Oracle2	com.informatica.oracle.oracledatabase.OracleColumn	MURALI.D_PRODUCT.USER_UPDATE_ID	Auto_Oracle2	org.omg.cwm.objectmodel.co
2	Auto_Oracle2	com.informatica.oracle.oracledatabase.Oracl...	MURALI.D_PRODUCT	Auto_Oracle2	com.informatica.oracle.oracledatabase.OracleColumn	MURALI.D_PRODUCT.USER_UPDATE_ID	Auto_Oracle2	org.omg.cwm.objectmodel.co
3	Auto_Oracle2	com.informatica.oracle.oracledatabase.Oracl...	MURALI.D_PRODUCT	Auto_Oracle2	com.informatica.oracle.oracledatabase.OracleColumn	MURALI.D_PRODUCT.USER_UPDATE_ID	Auto_Oracle2	org.omg.cwm.objectmodel.co
4	Auto_Oracle2	com.informatica.oracle.oracledatabase.Oracl...	MURALI.D_PRODUCT	Auto_Oracle2	com.informatica.oracle.oracledatabase.OracleColumn	MURALI.D_PRODUCT.USER_UPDATE_ID	Auto_Oracle2	org.omg.cwm.objectmodel.co
5	Auto_Oracle2	com.informatica.oracle.oracledatabase.Oracl...	MURALI.D_PRODUCT	Auto_Oracle2	com.informatica.oracle.oracledatabase.OracleColumn	MURALI.D_PRODUCT.USER_UPDATE_ID	Auto_Oracle2	org.omg.cwm.objectmodel.co
6	Auto_Oracle2	com.informatica.oracle.oracledatabase.Oracl...	MURALI.D_PRODUCT	Auto_Oracle2	com.informatica.oracle.oracledatabase.OracleColumn	MURALI.D_PRODUCT.USER_UPDATE_ID	Auto_Oracle2	org.omg.cwm.objectmodel.co
7	Auto_Oracle2	com.informatica.oracle.oracledatabase.Oracl...	MURALI.D_PRODUCT	Auto_Oracle2	com.informatica.oracle.oracledatabase.OracleColumn	MURALI.D_PRODUCT.USER_UPDATE_ID	Auto_Oracle2	org.omg.cwm.objectmodel.co
8	Auto_Oracle2	com.informatica.oracle.oracledatabase.Oracl...	MURALI.D_PRODUCT	Auto_Oracle2	com.informatica.oracle.oracledatabase.OracleColumn	MURALI.D_PRODUCT.USER_UPDATE_ID	Auto_Oracle2	org.omg.cwm.objectmodel.co
9	Auto_Oracle2	com.informatica.oracle.oracledatabase.Oracl...	MURALI.D_PRODUCT	Auto_Oracle2	com.informatica.oracle.oracledatabase.OracleColumn	MURALI.D_PRODUCT.USER_UPDATE_ID	Auto_Oracle2	org.omg.cwm.objectmodel.co
10	Auto_Oracle2	com.informatica.oracle.oracledatabase.Oracl...	MURALI.D_PRODUCT	Auto_Oracle2	com.informatica.oracle.oracledatabase.OracleColumn	MURALI.D_PRODUCT.USER_UPDATE_ID	Auto_Oracle2	org.omg.cwm.objectmodel.co
11	Auto_Oracle2	com.informatica.oracle.oracledatabase.Oracl...	MURALI.D_PRODUCT	Auto_Oracle2	com.informatica.oracle.oracledatabase.OracleColumn	MURALI.D_PRODUCT.USER_UPDATE_ID	Auto_Oracle2	org.omg.cwm.objectmodel.co
12	Auto_Oracle2	com.informatica.oracle.oracledatabase.Oracl...	MURALI.D_PRODUCT	Auto_Oracle2	com.informatica.oracle.oracledatabase.OracleColumn	MURALI.D_PRODUCT.USER_UPDATE_ID	Auto_Oracle2	org.omg.cwm.objectmodel.co
13	Auto_Oracle2	com.informatica.oracle.oracledatabase.Oracl...	MURALI.D_PRODUCT	Auto_Oracle2	com.informatica.oracle.oracledatabase.OracleColumn	MURALI.D_PRODUCT.USER_UPDATE_ID	Auto_Oracle2	org.omg.cwm.objectmodel.co
14	Auto_Oracle2	com.informatica.oracle.oracledatabase.Oracl...	MURALI.D_PRODUCT	Auto_Oracle2	com.informatica.oracle.oracledatabase.OracleColumn	MURALI.D_PRODUCT.USER_UPDATE_ID	Auto_Oracle2	org.omg.cwm.objectmodel.co

IMA_CLASS_TREE Sample Query

The IMA_CLASS_TREE view provides information about the ancestor class. Each class in the Metadata Manager warehouse is based on an ancestor class in the common warehouse metamodel.

The following query shows the ancestor classes for the Teradata Database class:

```
SELECT class_id, prnt_class_id
FROM ima_class_tree
WHERE class_id = 'com.informatica.teradata.teradataserver.TeradataDBMS';
```

The following image shows the query results:

Query... | SQL | All Rows Fetched: 6 in 0.047 seconds

	CLASS_ID	PRNT_CLASS_ID
1	com.informatica.teradata.teradataserver.TeradataDBMS	org.omg.cwm.objectmodel.core.Element
2	com.informatica.teradata.teradataserver.TeradataDBMS	org.omg.cwm.objectmodel.core.ModelElement
3	com.informatica.teradata.teradataserver.TeradataDBMS	org.omg.cwm.objectmodel.core.Namespace
4	com.informatica.teradata.teradataserver.TeradataDBMS	org.omg.cwm.objectmodel.core.Package
5	com.informatica.teradata.teradataserver.TeradataDBMS	org.omg.cwm.foundation.softwaredeployment.DeployedSoftwareSystem
6	com.informatica.teradata.teradataserver.TeradataDBMS	com.informatica.teradata.teradataserver.TeradataDBMS

IMA_RBL_LINKS Sample Query

The IMA_RBL_LINKS view provides details about the objects that are linked with rule-based links. Rule-based links are specified in a linking rules XML file, which defines the associations between source and target ports.

The following image shows linking rule "Erwin_to_AS400_View," which creates links between an Erwin resource and a custom resource:

```
<rule name="Erwin_to_AS400_View">
    <sourceFilter>
      <endPoint connection="SGSAMPLEDB_MODEL" class="View Column"/>
    </sourceFilter>
    <targetFilter>
        <element class="Library" >
            <element class="View">
                <element class="ViewColumn"/>
            </element>
        </element>
    </targetFilter>
    <link condition="source.featureName = target.Name AND source.structName = target.parent.Name AND source.packageName is NULL "/>
</rule>
```

The following query gets details about the objects in the Metadata Manager warehouse that are linked with rule-based links:

```
SELECT src_struct_name, src_feature_name, tgt_repo_name, tgt_struct_name,
tgt_feature_name, rule_set_name, rule_name
FROM ima_rbl_links
```

The following image shows the query results:

Query Result

All Rows Fetched: 6 in 15.997 seconds

	SRC_STRUCT_NAME	SRC_FEATURE_NAME	TGT_REPO_NAME	TGT_STRUCT_NAME	TGT_FEATURE_NAME	RULE_SET_NAME	RULE_NAME
1	EMP_ORDER	FIRST_NAME	AS400_LINK_ERWIN	FIRST_NAME	(null)	RBL_EP_028	Erwin_to_AS400_View
2	EMP_ORDER	CITY	AS400_LINK_ERWIN	CITY	(null)	RBL_EP_028	Erwin_to_AS400_View
3	EMP_ORDER	OFFICE_PHONE	AS400_LINK_ERWIN	OFFICE_PHONE	(null)	RBL_EP_028	Erwin_to_AS400_View
4	EMP_ORDER	LAST_NAME	AS400_LINK_ERWIN	LAST_NAME	(null)	RBL_EP_028	Erwin_to_AS400_View
5	EMP_ORDER	EMAIL	AS400_LINK_ERWIN	EMAIL	(null)	RBL_EP_028	Erwin_to_AS400_View
6	SGPROC001	(null)	AS400_LINK_ERWIN	SGPROC001	(null)	RBL_EP_032	Erwin_to_AS400_Procedure

IMA_FEATURE_MAP Sample Query

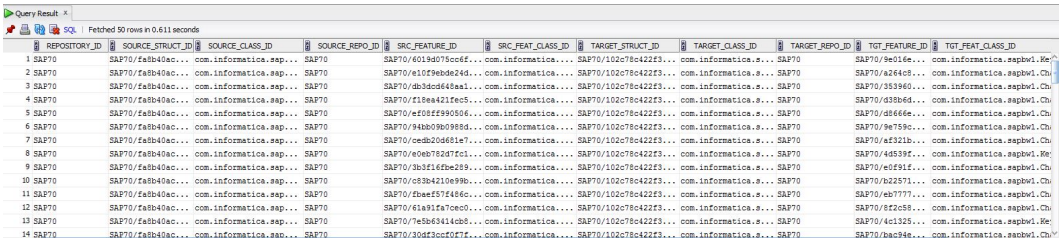
The IMA_FEATURE_MAP view provides details about the data lineage links in the Metadata Manager warehouse.

The following query gets details about data lineage links:

```
SELECT
  (SELECT repository_id
  FROM ima_repository
  WHERE ima_repository.repository_uid = ima_feature_map.repository_uid
  ) AS REPOSITORY_ID,
  (SELECT element_id
  FROM ima_element
  WHERE ima_element.element_uid = ima_feature_map.source_struct_uid
  ) AS SOURCE_STRUCT_ID,
  (SELECT class_id
  FROM ima_class
  WHERE ima_class.class_uid = ima_feature_map.source_class_uid
```

```
  ) AS SOURCE_CLASS_ID,
  (SELECT repository_id
  FROM ima_repository
  WHERE ima_repository.repository_uid = ima_feature_map.source_repo_uid
  ) AS SOURCE_REPO_ID,
  (SELECT element_id
  FROM ima_element
  WHERE ima_element.element_uid = ima_feature_map.src_feature_uid
  ) AS SRC_FEATURE_ID,
  (SELECT class_id
  FROM ima_class
  WHERE ima_class.class_uid = ima_feature_map.src_feat_class_uid
  ) AS SRC_FEAT_CLASS_ID,
  (SELECT element_id
  FROM ima_element
  WHERE ima_element.element_uid = ima_feature_map.target_struct_uid
  ) AS TARGET_STRUCT_ID,
  (SELECT class_id
  FROM ima_class
  WHERE ima_class.class_uid = ima_feature_map.target_class_uid
  ) AS TARGET_CLASS_ID,
  (SELECT repository_id
  FROM ima_repository
  WHERE ima_repository.repository_uid = ima_feature_map.target_repo_uid
  ) AS TARGET_REPO_ID,
  (SELECT element_id
  FROM ima_element
  WHERE ima_element.element_uid = ima_feature_map.tgt_feature_uid
  ) AS TGT_FEATURE_ID,
  (SELECT class_id
  FROM ima_class
  WHERE ima_class.class_uid = ima_feature_map.tgt_feat_class_uid
  ) AS TGT_FEAT_CLASS_ID
FROM ima_feature_map
```

The following image shows the query results:



Query Result

Fetched 50 rows in 0.611 seconds

	REPOSITORY_ID	SOURCE_STRUCT_ID	SOURCE_CLASS_ID	SOURCE_REPO_ID	SRC_FEATURE_ID	SRC_FEAT_CLASS_ID	TARGET_STRUCT_ID	TARGET_CLASS_ID	TARGET_REPO_ID	TGT_FEATURE_ID	TGT_FEAT_CLASS_ID
1	SAP70	SAP70/fa8b40ac...	com.informatica.sap...	SAP70	SAP70/6019d075cc6f...	com.informatica....	SAP70/102c78c422f3...	com.informatica.s...	SAP70	SAP70/9e016e...	com.informatica.sapbw1.Ke
2	SAP70	SAP70/fa8b40ac...	com.informatica.sap...	SAP70	SAP70/e10f9ebde24d...	com.informatica....	SAP70/102c78c422f3...	com.informatica.s...	SAP70	SAP70/a264c8...	com.informatica.sapbw1.Ch
3	SAP70	SAP70/fa8b40ac...	com.informatica.sap...	SAP70	SAP70/db3dcd648aa1...	com.informatica....	SAP70/102c78c422f3...	com.informatica.s...	SAP70	SAP70/353960...	com.informatica.sapbw1.Ch
4	SAP70	SAP70/fa8b40ac...	com.informatica.sap...	SAP70	SAP70/f18ea421fec5...	com.informatica....	SAP70/102c78c422f3...	com.informatica.s...	SAP70	SAP70/d38b6d...	com.informatica.sapbw1.Ch
5	SAP70	SAP70/fa8b40ac...	com.informatica.sap...	SAP70	SAP70/ef08ff990506...	com.informatica....	SAP70/102c78c422f3...	com.informatica.s...	SAP70	SAP70/d8666e...	com.informatica.sapbw1.Ch
6	SAP70	SAP70/fa8b40ac...	com.informatica.sap...	SAP70	SAP70/94kb09b0988d...	com.informatica....	SAP70/102c78c422f3...	com.informatica.s...	SAP70	SAP70/9e759c...	com.informatica.sapbw1.Ch
7	SAP70	SAP70/fa8b40ac...	com.informatica.sap...	SAP70	SAP70/cedb20d681e7...	com.informatica....	SAP70/102c78c422f3...	com.informatica.s...	SAP70	SAP70/af321b...	com.informatica.sapbw1.Ch
8	SAP70	SAP70/fa8b40ac...	com.informatica.sap...	SAP70	SAP70/e0eb782d7fc1...	com.informatica....	SAP70/102c78c422f3...	com.informatica.s...	SAP70	SAP70/4d539f...	com.informatica.sapbw1.Ke
9	SAP70	SAP70/fa8b40ac...	com.informatica.sap...	SAP70	SAP70/3b3f16fbe289...	com.informatica....	SAP70/102c78c422f3...	com.informatica.s...	SAP70	SAP70/e0f91f...	com.informatica.sapbw1.Ch
10	SAP70	SAP70/fa8b40ac...	com.informatica.sap...	SAP70	SAP70/c83b4210e99b...	com.informatica....	SAP70/102c78c422f3...	com.informatica.s...	SAP70	SAP70/b22571...	com.informatica.sapbw1.Ch
11	SAP70	SAP70/fa8b40ac...	com.informatica.sap...	SAP70	SAP70/fbaef57f486c...	com.informatica....	SAP70/102c78c422f3...	com.informatica.s...	SAP70	SAP70/eb7777...	com.informatica.sapbw1.Ch
12	SAP70	SAP70/fa8b40ac...	com.informatica.sap...	SAP70	SAP70/61a91fa7cec0...	com.informatica....	SAP70/102c78c422f3...	com.informatica.s...	SAP70	SAP70/8f2c58...	com.informatica.sapbw1.Ch
13	SAP70	SAP70/fa8b40ac...	com.informatica.sap...	SAP70	SAP70/7e5b63414cb8...	com.informatica....	SAP70/102c78c422f3...	com.informatica.s...	SAP70	SAP70/4c1325...	com.informatica.sapbw1.Ke
14	SAP70	SAP70/fa8b40ac...	com.informatica.sap...	SAP70	SAP70/30df3ccf0f7f...	com.informatica....	SAP70/102c78c422f3...	com.informatica.s...	SAP70	SAP70/bac94e...	com.informatica.sapbw1.Ch