

Dataedo

# Dataedo repository

## Data Dictionary

















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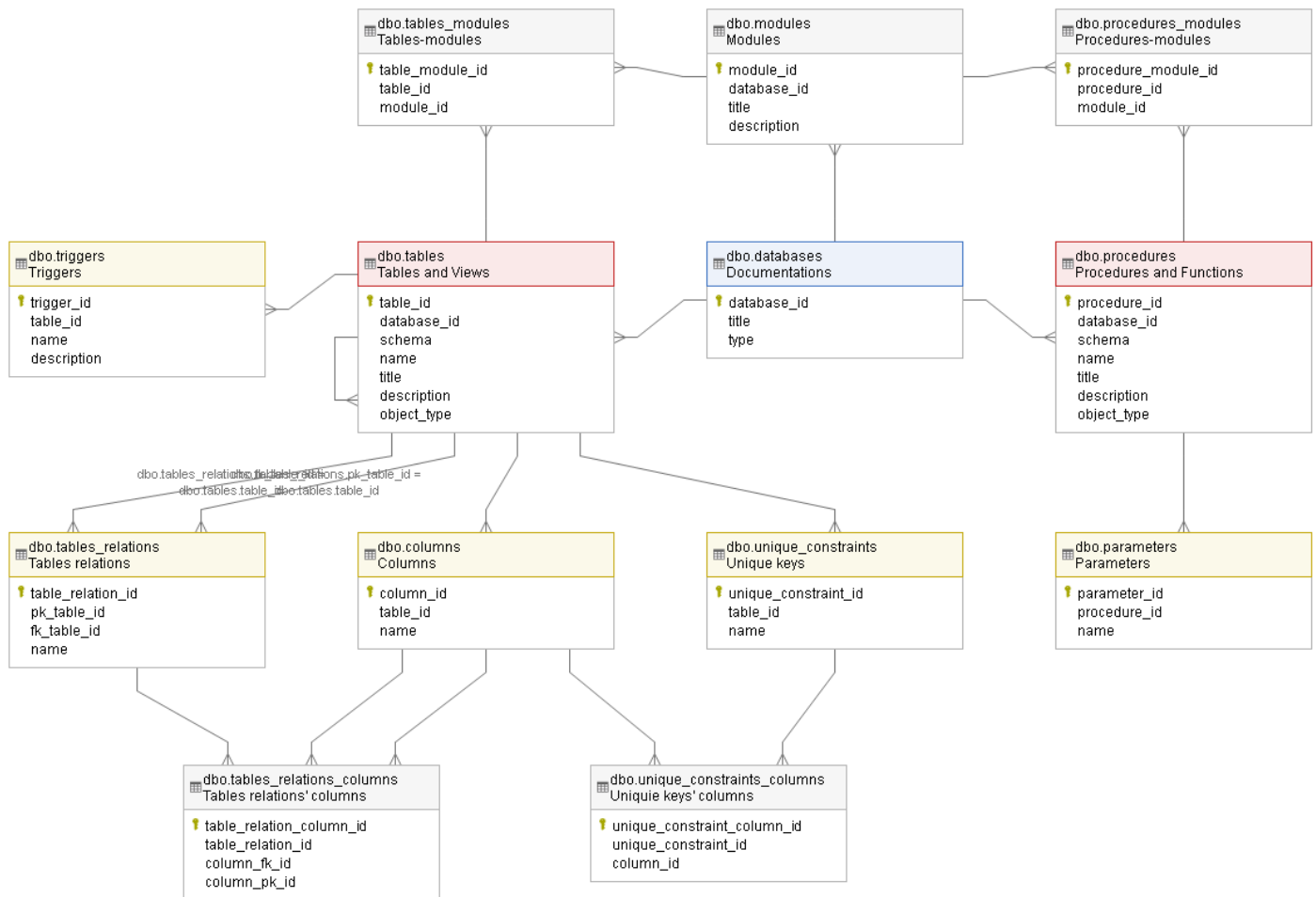
## Legend

-  Primary key
-  Primary key disabled
-  User-defined primary key
-  Unique key
-  Unique key disabled
-  User-defined unique key
-  Active trigger
-  Disabled trigger
-  Primary key relation
-  User-defined primary key relation
-  Foreign key relation
-  User-defined foreign key relation
-  Input
-  Output
-  Input/Output
-  Nullable

## 1. Dataedo repository

Dataedo 5.2 repository database documentation. Dataedo repository is SQL Server database that holds all imported database schemas and user created descriptions.

## 2. Schema and Metadata



All documented database objects are stored in Dataedo repository.

Distinct database documentations are stored in **databases** table which holds their title and DBMS connection details.

### Object status

Tables, views, columns, procedures, functions and parameters can be in one of two states identified by *status* column:

- active ('A')- object exists in source database or
- deleted ('B') - object has been deleted from source database. It is still visible in Dataedo Editor but is not included in exported documentation.

When object gets deleted with editor it gets physically deleted from Dataedo tables. There is no way to undelete it.

### Standard metadata columns

Every table has following metadata columns that describe who and when created and last updated data in repository:

- *creation\_date* - timestamp of row's creation in Dataedo repository
- *created\_by* - Dataedo user name that created the row in Dataedo repository
- *last\_modification\_date* - timestamp of row's last update in Dataedo repository
- *modified\_by* - Dataedo user name that last updated the row in Dataedo repository

### DBMS import columns

Tables, views, procedures and functions have following metadata columns that facilitate change tracking and database schema updates:

- *dbms\_creation\_date* - timestamp of object creation in source database
- *dbms\_last\_modification\_date* - timestamp of last object modification in source database
- *synchronization\_date* - timestamp of last object update/import from source database
- *synchronized\_by* - name of user that last updated/imported object from source database

## Object source

Objects representing data structures (tables, columns, relations etc) can have following sources identified by *source* column:

- 'DBMS' - object was imported from database schema,
- 'USER' - object was created by user in repository with Dataedo Editor and does not exist in database schema.

## 2.1. Tables

### 2.1.1. Table: dbo.columns (Columns)

Holds tables' and views' columns.

#### Columns

	Name	Data type	N	Description / Attributes
	column_id	int		Row ID. Identity / Auto increment column
	table_id	int		Table to which column belongs.
	ordinal_position	int		Position of column in table.
	name	nvarchar(250)		Column name in DBMS.
	title	nvarchar(250)	N	Column alternative title.
	description	nvarchar(MAX)	N	Column description in Dataedo. Description is imported from database at first import and during schema update, but only if it was empty.
	datatype	nvarchar(250)	N	Column data type.
	data_length	nvarchar(50)	N	Data length/precision as text. Depending on data type it can have different formats, e.g. "100", "5,4", "MAX" etc. Null if column has no length/precision defined.
	primary_key	char(1)		1 if column is part of primary key, 0 otherwise Default: 0
	nullable	bit		1 if column is nullable, 0 otherwise Default: 1
	default_def	nvarchar(4000)	N	Default value definition.
	identity_def	nvarchar(50)	N	Identity definition (e.g. "1, 1"). SQL Server only.
	status	char(1)		'D' if column was deleted in DBMS, 'A' otherwise. Deleted columns aren't exported to documentation. Default: 'A'
	creation_date	datetime		Standard row creation timestamp. Default: getdate()
	created_by	nvarchar(100)	N	Database/Dataedo username that created row. Default: NULL
	last_modification_date	datetime		Standard row last update timestamp. Default: getdate()
	modified_by	nvarchar(100)	N	Database/Dataedo username that last updated row. Default: NULL
	default_value	nvarchar(MAX)	N	Formula of column default value. NULL if field has not default value specification.
	is_identity	bit		Is column an identity/auto incremented column. 1 - identity/auto increment, 0 - otherwise. Default: 0

Name	Data type	N	Description / Attributes
is_computed	bit		Is column a computed column. 1 - computed column, 0 - regular column. If column is computed, you should expect that calculation formula is imported to computed_formula field Default: 0
computed_formula	nvarchar(MAX)	N	Calculation formula for computed columns. NULL for regular fields.

## Links to

Table	Join	Title / Name / Description
➤ <b>dbo.tables</b> (Tables and Views)	<b>dbo.columns</b> .table_id = dbo.tables.table_id	FK_column_table

## Linked from

Table	Join	Title / Name / Description
⬅ <b>dbo.erd_nodes_columns</b> (ERD Nodes Columns)	<b>dbo.columns</b> .column_id = dbo.erd_nodes_columns.column_id	FK_erd_nodes_columns_columns
⬅ <b>dbo.tables_relations_columns</b> (Tables relations' columns)	<b>dbo.columns</b> .column_id = dbo.tables_relations_columns.column_fk_id	FK_tables_relations_columns_column_fk
⬅ <b>dbo.tables_relations_columns</b> (Tables relations' columns)	<b>dbo.columns</b> .column_id = dbo.tables_relations_columns.column_pk_id	FK_tables_relations_columns_column_pk
⬅ <b>dbo.unique_constraints_columns</b> (Unique keys' columns)	<b>dbo.columns</b> .column_id = dbo.unique_constraints_columns.column_id	FK_unique_constraints_columns_columns

## Unique keys

Columns	Name / Description
🔑 <b>column_id</b>	PK_columns Table primary key.

## Triggers

Name	When	Description
⚡ <b>trg_columns_Modify</b>	After Insert, Update	Standard insert/update trigger setting last_modification_date, modified by columns.

## Uses

Name
📊 <b>dbo.columns</b> (Columns)
📊 <b>dbo.tables</b> (Tables and Views)


## Used by

Name
📊 <b>dbo.columns</b> (Columns)
📊 <b>dbo.erd_nodes_columns</b> (ERD Nodes Columns)
📊 <b>dbo.tables_relations_columns</b> (Tables relations' columns)
📊 <b>dbo.tables_relations_columns</b> (Tables relations' columns)
📊 <b>dbo.unique_constraints_columns</b> (Unique keys' columns)

## 2.1.2. Table: dbo.databases (Documentations)

Holds Dataedo documentations and their connection details.

### Columns

	Name	Data type	N	Description / Attributes
	database_id	int		Row ID. Identity / Auto increment column
	title (Documentation title)	nvarchar(250)		Documentation title.
	type (DBMS)	nvarchar(100)	N	DBMS type: ORACLE, SQLSERVER, etc.
	name (Database name)	nvarchar(1024)	N	Database/schema name.
	user	nvarchar(1024)	N	Username used to connect to database.
	password	nvarchar(1024)	N	Encrypted password, null if not saved.
	windows_authentication	bit	N	1 if Windows authentication for SQL Server
	different_schema	bit	N	1 if user selected schema different than user (Oracle only), 0 otherwise
	connection_type	nvarchar(100)	N	Oracle connection type: BASIC for host/port/service name, TNS for network alias
	host	nvarchar(1024)	N	Host name/address.
	port	int	N	Port for Oracle connection.
	service_name	nvarchar(100)	N	Service name for Oracle connection.
	network_alias	nvarchar(100)	N	Network alias for Oracle TNS connection.
	description	nvarchar(MAX)	N	Documentation/database introduction to be included in documentation.
	creation_date	datetime		Standard row creation timestamp. Default: getdate()
	created_by	nvarchar(100)	N	Database/Dataedo username that created row. Default: NULL
	last_modification_date	datetime		Standard row last update timestamp. Default: getdate()
	modified_by	nvarchar(100)	N	Database/Dataedo username that last updated row. Default: NULL
	description_search	nvarchar(MAX)	N	Column used for searching, holds description as plain text. Description column contains HTML tags and images that would interfere with searching.
	filter	nvarchar(MAX)	N	Import filter definiton saved in XML format.

### Linked from

	Table	Join	Title / Name / Description
↖	dbo.dependencies_descriptions (Dependencies descriptions)	<b>dbo.databases</b> .database_id = dbo.dependencies_descriptions.datab ase_id	FK_dependencies_descriptions_databases
↖	dbo.ignored_objects (Ignored objects)	<b>dbo.databases</b> .database_id = dbo.ignored_objects.database_id	FK_ignored_objects_databases
↖	dbo.modules (Modules)	<b>dbo.databases</b> .database_id = dbo.modules.database_id	FK_modules_database
↖	dbo.procedures (Procedures and Functions)	<b>dbo.databases</b> .database_id = dbo.procedures.database_id	FK_procedures_database



Table	Join	Title / Name / Description
← dbo.tables (Tables and Views)	dbo.databases.database_id = dbo.tables.database_id	FK_tables_database

## Unique keys

Columns	Name / Description
🔑 database_id	PK_databases Table primary key.

## Triggers

Name	When	Description
⚡ trg_databases_Modify	After Insert, Update	Standard insert/update trigger setting last_modification_date, modified by columns.

## Used by

Name
📄 <b>dbo.databases (Documentations)</b>
📄 dbo.dependencies_descriptions (Dependencies descriptions)
📄 dbo.ignored_objects (Ignored objects)
📄 dbo.modules (Modules)
📄 dbo.procedures (Procedures and Functions)
📄 dbo.tables (Tables and Views)

### 2.1.3. Table: dbo.modules (Modules)

Database modules defined with Dataedo. Modules exist solely in Dataedo documentation repository and are used for logical grouping of database objects.

## Columns

Name	Data type	N	Description / Attributes
🔑 module_id	int		Row ID. Identity / Auto increment column
database_id	int		Documentation module is part of. Ref. databases.
ordinal_position	int	N	Posiotion of module in a list. By default null. Value assigned for all when sorted. If null then ordered by title.
title	nvarchar(250)		Module name/title.
description	nvarchar(MAX)	N	Module introduction to be included in documentation.
creation_date	datetime		Stanadard row creation timestamp. Default: getdate()
created_by	nvarchar(100)	N	Database/Dataedo username that created row. Default: NULL
last_modification_date	datetime		Stanadard row last update timestamp. Default: getdate()
modified_by	nvarchar(100)	N	Database/Dataedo username that last updated row. Default: NULL
description_search	nvarchar(MAX)	N	Column used for searching, holds description as plain text. Description column contains HTML tags and images that would interfere searching.

Name	Data type	N	Description / Attributes
erd_link_style	nvarchar(25)	N	Default link ERD style. See erd_links.link_style for details. Default: N'STRAIGHT'
erd_show_types	bit	N	Flag indicating if entities in ERD include data types. 1 - show, 0 - don't show. Default is 0. Default: 0

## Links to

Table	Join	Title / Name / Description
➤ dbo.databases (Documentations)	<b>dbo.modules</b> .database_id = dbo.databases.database_id	FK_modules_database

## Linked from

Table	Join	Title / Name / Description
⬅️ dbo.erd_links (ERD Links)	<b>dbo.modules</b> .module_id = dbo.erd_links.module_id	FK_erd_links_modules
⬅️ dbo.erd_nodes (ERD Nodes)	<b>dbo.modules</b> .module_id = dbo.erd_nodes.module_id	FK_erd_nodes_modules
⬅️ dbo.erd_nodes_columns (ERD Nodes Columns)	<b>dbo.modules</b> .module_id = dbo.erd_nodes_columns.module_id	FK_erd_nodes_columns_modules
⬅️ dbo.procedures_modules (Procedures-modules)	<b>dbo.modules</b> .module_id = dbo.procedures_modules.module_id	FK_procedures_modules_module
⬅️ dbo.tables_modules (Tables-modules)	<b>dbo.modules</b> .module_id = dbo.tables_modules.module_id	FK_tables_modules_module

## Unique keys

Columns	Name / Description
🔑 module_id	PK_modules Table primary key.

## Triggers


Name	When	Description
⚡️ trg_modules_Modify	After Insert, Update	Standard insert/update trigger setting last_modification_date, modified by columns

## Uses

Name
📊 <b>dbo.modules (Modules)</b>
📊 dbo.databases (Documentations)

## Used by


Name
📊 <b>dbo.modules (Modules)</b>
📊 dbo.erd_links (ERD Links)
📊 dbo.erd_nodes (ERD Nodes)
📊 dbo.erd_nodes_columns (ERD Nodes Columns)
📊 dbo.procedures_modules (Procedures-modules)

Name
 <b>dbo.tables_modules</b> (Tables-modules)


## 2.1.4. Table: **dbo.parameters** (Parameters)

Function and procedure parameters.

### Columns

	Name	Data type	N	Description / Attributes
	parameter_id	int		Row ID. Identity / Auto increment column
	procedure_id	int		Parameter's procedure.
	ordinal_position	int		Position of parameter in parameters list
	parameter_mode	nvarchar(10)		IN, OUT, INOUT
	name	nvarchar(250)		Parameter name in DBMS. "Returns" for functions output.
	description	nvarchar(MAX)	N	Parameter description defined with Dataedo.
	datatype	nvarchar(250)	N	Column data type.
	data_length	nvarchar(20)	N	Data length/precision as text. Depending on data type it can have different formats, e.g. "100", "5,4", "MAX" etc. Null if parameter has no length/precision defined.
	status	char(1)		'D' if parameter was deleted from DBMS, 'A' otherwise Default: 'A'
	creation_date	datetime		Standard row creation timestamp. Default: getdate()
	created_by	nvarchar(100)	N	Database/Dataedo username that created row. Default: NULL
	last_modification_date	datetime		Standard row last update timestamp. Default: getdate()
	modified_by	nvarchar(100)	N	Database/Dataedo username that last updated row. Default: NULL

### Links to

	Table	Join	Title / Name / Description
	dbo.procedures (Procedures and Functions)	<b>dbo.parameters.procedure_id</b> = dbo.procedures.procedure_id	FK_parameters_procedures



### Unique keys

	Columns	Name / Description
	parameter_id	PK_parameters Table primary key.

### Triggers

	Name	When	Description
	trg_parameters_Modify	After Insert, Update	Standard insert/update trigger setting last_modification_date, modified by columns

## Uses


Name
 <b>dbo.parameters</b> (Parameters)
 <b>dbo.procedures</b> (Procedures and Functions)

### 2.1.5. Table: dbo.procedures (Procedures and Functions)

Database stored procedures and functions.

Procedures and functions are distinguished by *object\_type* column with 'PROCEDURE' and 'FUNCTION' values.

## Columns

	Name	Data type	N	Description / Attributes
	procedure_id	int		Row ID. Identity / Auto increment column
	database_id	int		Documentation which object is part of. Ref: databases.
	schema	nvarchar(250)	N	DBMS schema name.
	name	nvarchar(250)		Object DBMS name.
	title	nvarchar(250)	N	Alternative object title defined with Dataedo.
	description	nvarchar(MAX)	N	Procedure/function description defined with Dataedo.
	object_type	nvarchar(100)		Database object type. 'PROCEDURE' for procedures, 'FUNCTION' for functions.
	definition	nvarchar(MAX)	N	Procedure/function script imported from DBMS.
	status	char(1)		'D' if procedure/function was deleted from DBMS, 'A' otherwise Default: 'A'
	dbms_creation_date	datetime	N	Time procedure/function was created in DBMS.
	dbms_last_modification_date	datetime	N	Time procedure/function was last updated in DBMS.
	synchronization_date	datetime	N	Time of last object update/import from DBMS.
	synchronized_by	nvarchar(100)	N	Login of user that last updated/imported the object from DBMS.
	creation_date	datetime		Standard row creation timestamp. Default: getdate()
	created_by	nvarchar(100)	N	Database/Dataedo username that created row. Default: NULL
	last_modification_date	datetime		Standard row last update timestamp. Default: getdate()
	modified_by	nvarchar(100)	N	Database/Dataedo username that last updated row. Default: NULL
	function_type	nvarchar(100)	N	Type of function as defined in DBMS, eg. "Table-valued", "Scalar-valued".
	exists_in_DBMS	bit	N	A flag which denotes if an object exists in DBMS. Used during synchronization.
	description_search	nvarchar(MAX)	N	Column used for searching, holds description as plain text. Description column contains HTML tags and images that would interfere searching.

## Links to

	Table	Join	Title / Name / Description
➤	dbo.databases (Documentations)	<b>dbo.procedures</b> .database_id = dbo.databases.database_id	FK_procedures_database

## Linked from

	Table	Join	Title / Name / Description
⬅	dbo.parameters (Parameters)	<b>dbo.procedures</b> .procedure_id = dbo.parameters.procedure_id	FK_parameters_procedures
⬅	dbo.procedures_modules (Procedures-modules)	<b>dbo.procedures</b> .procedure_id = dbo.procedures_modules.procedure_id	FK_procedures_modules_procedure

## Unique keys

	Columns	Name / Description
🔑	procedure_id	PK_procedures Table primary key.

## Triggers

	Name	When	Description
⚡	trg_procedures_Modify	After Insert, Update	Standard insert/update trigger setting last_modification_date, modified by columns

## Uses

Name
📊 <b>dbo.procedures</b> (Procedures and Functions)
📊 dbo.databases (Documentations)

## Used by

Name
📊 <b>dbo.procedures</b> (Procedures and Functions)
📊 dbo.parameters (Parameters)
📊 dbo.procedures_modules (Procedures-modules)

### 2.1.6. Table: dbo.procedures\_modules (Procedures-modules)

Many-to-many relationship of procedures and modules.

## Columns

	Name	Data type	N	Description / Attributes
🔑	procedure_module_id	int		Row ID. Identity / Auto increment column
	procedure_id	int		Ref: procedures.
	module_id	int		Ref: modules.
	creation_date	datetime		Standard row creation timestamp. Default: getdate()
	created_by	nvarchar(100)	N	Database/Dataedo username that created row. Default: NULL

Name	Data type	N	Description / Attributes
last_modification_date	datetime		Standard row last update timestamp. Default: getdate()
modified_by	nvarchar(100)	<i>N</i>	Database/Dataedo username that last updated row. Default: NULL

## Links to

Table	Join	Title / Name / Description
➤ <code>dbo.modules</code> (Modules)	<b>dbo.procedures_modules.module_id</b> = <code>dbo.modules.module_id</code>	FK_procedures_modules_module
➤ <code>dbo.procedures</code> (Procedures and Functions)	<b>dbo.procedures_modules.procedure_id</b> = <code>dbo.procedures.procedure_id</code>	FK_procedures_modules_procedure

## Unique keys

Columns	Name / Description
🔑 <code>procedure_module_id</code>	PK_procedures_modules Table primary key.
🔑 <code>procedure_id, module_id</code>	UK_procedures_modules Procedure-module combination must be unique.

## Triggers

Name	When	Description
⚡ <code>trg_procedures_modules_Modify</code>	After Insert, Update	Standard insert/update trigger setting last_modification_date, modified by columns

## Uses

Name
📊 <b>dbo.procedures_modules</b> (Procedures-modules)
📊 <code>dbo.modules</code> (Modules)
📊 <code>dbo.procedures</code> (Procedures and Functions)

## 2.1.7. Table: `dbo.tables` (Tables and Views)

Database tables and views.

Tables and views are distinguished by *object\_type* column with 'TABLE' and 'VIEW' values.

## Columns

Name	Data type	N	Description / Attributes
🔑 <code>table_id</code>	int		Row ID. Identity / Auto increment column
<code>database_id</code>	int		Documentation which object is part of. Ref: databases.
<code>schema</code>	nvarchar(250)	<i>N</i>	DBMS schema name.
<code>name</code>	nvarchar(250)		Object DBMS name.
<code>title</code>	nvarchar(250)	<i>N</i>	Alternative object title defined with Dataedo.
<code>description</code>	nvarchar(MAX)	<i>N</i>	Table/view description defined with Dataedo.
<code>object_type</code>	nvarchar(100)		Database object type. 'TABLE' for tables, 'VIEW' for views.
<code>definition</code>	nvarchar(MAX)	<i>N</i>	View script imported from DBMS. Empty for tables.

Name	Data type	N	Description / Attributes
status	char(1)		'D' if table/view was deleted from DBMS, 'A' otherwise Default: 'A'
dbms_creation_date	datetime	<i>N</i>	Time table/view was created in DBMS.
dbms_last_modification_date	datetime	<i>N</i>	Time table/view was last updated in DBMS.
synchronization_date	datetime	<i>N</i>	Time of last object update/import from DBMS.
synchronized_by	nvarchar(100)	<i>N</i>	Login of user that last updated/imported the object from DBMS.
creation_date	datetime		Standard row creation timestamp. Default: getdate()
created_by	nvarchar(100)	<i>N</i>	Database/Dataedo username that created row. Default: NULL
last_modification_date	datetime		Standard row last update timestamp. Default: getdate()
modified_by	nvarchar(100)	<i>N</i>	Database/Dataedo username that last updated row. Default: NULL
exists_in_DBMS	bit	<i>N</i>	A flag which denotes if an object exists in DBMS. Used during update.
description_search	nvarchar(MAX)	<i>N</i>	Column used for searching, holds description as plain text. Description column contains HTML tags and images that would interfere with searching.

## Links to

Table	Join	Title / Name / Description
➤ <a href="#">dbo.databases (Documentations)</a>	<b>dbo.tables</b> .database_id = dbo.databases.database_id	FK_tables_database
➤ <a href="#">dbo.tables (Tables and Views)</a>	<b>dbo.tables</b> .table_id = dbo.tables.table_id	FK_tables_tables

## Linked from

Table	Join	Title / Name / Description
⬅ <a href="#">dbo.tables (Tables and Views)</a>	<b>dbo.tables</b> .table_id = dbo.tables.table_id	FK_tables_tables
⬅ <a href="#">dbo.columns (Columns)</a>	<b>dbo.tables</b> .table_id = dbo.columns.table_id	FK_column_table
⬅ <a href="#">dbo.erd_nodes (ERD Nodes)</a>	<b>dbo.tables</b> .table_id = dbo.erd_nodes.table_id	FK_erd_nodes_tables
⬅ <a href="#">dbo.tables_modules (Tables-modules)</a>	<b>dbo.tables</b> .table_id = dbo.tables_modules.table_id	FK_tables_modules_tables
⬅ <a href="#">dbo.tables_relations (Tables relations)</a>	<b>dbo.tables</b> .table_id = dbo.tables_relations.fk_table_id	Foreign table FK_tables_relations_table_fk
⬅ <a href="#">dbo.tables_relations (Tables relations)</a>	<b>dbo.tables</b> .table_id = dbo.tables_relations.pk_table_id	Primary table FK_tables_relations_table_pk
⬅ <a href="#">dbo.triggers (Triggers)</a>	<b>dbo.tables</b> .table_id = dbo.triggers.table_id	FK_triggers_table
⬅ <a href="#">dbo.unique_constraints (Unique keys)</a>	<b>dbo.tables</b> .table_id = dbo.unique_constraints.table_id	FK_unique_constraints_tables




## Unique keys

Columns		Name / Description
	table_id	PK_tables Table primary key.










## Triggers

Name		When	Description
	trg_tables_Modify	After Insert, Update	Standard insert/update trigger setting last_modification_date, modified by columns

## Uses

Name	
	dbo.tables (Tables and Views)
	dbo.databases (Documentations)
	dbo.tables (Tables and Views)


## Used by

Name	
	dbo.tables (Tables and Views)
	dbo.columns (Columns)
	dbo.erd_nodes (ERD Nodes)
	dbo.tables (Tables and Views)
	dbo.tables_modules (Tables-modules)
	dbo.tables_relations (Tables relations) (Foreign table)
	dbo.tables_relations (Tables relations) (Primary table)
	dbo.triggers (Triggers)
	dbo.unique_constraints (Unique keys)

### 2.1.8. Table: dbo.tables\_modules (Tables-modules)

Many-to-many relationship of tables and modules.

## Columns

Name		Data type	N	Description / Attributes
	table_module_id	int		Row ID. Identity / Auto increment column
	table_id	int		Ref: tables.
	module_id	int		Ref: modules.
	creation_date	datetime		Standard row creation timestamp. Default: getdate()
	created_by	nvarchar(100)	N	Database/Dataedo username that created row. Default: NULL
	last_modification_date	datetime		Standard row last update timestamp. Default: getdate()
	modified_by	nvarchar(100)	N	Database/Dataedo username that last updated row. Default: NULL



## Links to

	Table	Join	Title / Name / Description
➤	dbo.modules (Modules)	<b>dbo.tables_modules.module_id</b> = dbo.modules.module_id	FK_tables_modules_module
➤	dbo.tables (Tables and Views)	<b>dbo.tables_modules.table_id</b> = dbo.tables.table_id	FK_tables_modules_tables

## Unique keys

	Columns	Name / Description
🔑	table_module_id	PK_tables_modules Table primary key.
🔑	table_id, module_id	UK_tables_modules Table-module combination must be unique.

## Triggers

	Name	When	Description
⚡	trg_tables_modules_Modify	After Insert, Update	Standard insert/update trigger setting last_modification_date, modified by columns

## Uses

Name
📊 <b>dbo.tables_modules</b> (Tables-modules)
📊 dbo.modules (Modules)
📊 dbo.tables (Tables and Views)

### 2.1.9. Table: dbo.tables\_relations (Tables relations)

Holds foreign keys, either defined in DBMS or by user in Dataedo. The two types are distinguished by source column (DBMS/USER).

## Columns

	Name	Data type	N	Description / Attributes
🔑	table_relation_id	int		Row ID. Identity / Auto increment column
	pk_table_id	int		Primary key table. Ref: tables.
	fk_table_id	int		Foreign key table. Ref: tables.
	source	nvarchar(50)		'DBMS' for imported from DBMS, 'USER' for defined by user in repository only Default: 'USER'
	name	nvarchar(250)		Relation name from DBMS or assigned by user if relation is user defined.
	description	nvarchar(MAX)	N	Relation description defined with Dataedo.
	status	char(1)		'D' if relation was deleted from DBMS, 'A' otherwise. Default: 'A'
	creation_date	datetime		Standard row creation timestamp. Default: getdate()
	created_by	nvarchar(100)	N	Database/Dataedo username that created row. Default: user_name()

Name	Data type	N	Description / Attributes
last_modification_date	datetime		Standard row last update timestamp. Default: getdate()
modified_by	nvarchar(100)	N	Database/Dataedo username that last updated row. Default: user_name()
update_rule	nvarchar(100)	N	Update rule as defined in DBMS: NO ACTION, SET NULL, CASCADE
delete_rule	nvarchar(100)	N	Update rule as defined in DBMS: NO ACTION, SET NULL, CASCADE
disabled	bit	N	1 when imported key is disabled (only DBMS).
title	nvarchar(250)	N	

## Links to

Table	Join	Title / Name / Description
➤ <b>dbo.tables</b> (Tables and Views)	<b>dbo.tables_relations.fk_table_id</b> = dbo.tables.table_id	Foreign table FK_tables_relations_table_fk
➤ <b>dbo.tables</b> (Tables and Views)	<b>dbo.tables_relations.pk_table_id</b> = dbo.tables.table_id	Primary table FK_tables_relations_table_pk

## Linked from

Table	Join	Title / Name / Description
⬅ <b>dbo.erd_links</b> (ERD Links)	<b>dbo.tables_relations.table_relation_id</b> = dbo.erd_links.relation_id	FK_erd_links_tables_relations
⬅ <b>dbo.tables_relations_columns</b> (Tables relations' columns)	<b>dbo.tables_relations.table_relation_id</b> = dbo.tables_relations_columns.table_rela- tion_id	FK_tables_relations_columns_relation

## Unique keys

Columns	Name / Description
🔑 <b>table_relation_id</b>	PK_tables_relations Table primary key.

## Triggers

Name	When	Description
⚡ <b>trg_tables_relations_Modify</b>	After Insert, Update	Standard insert/update trigger setting last_modification_date, modified by columns

## Uses

Name
📊 <b>dbo.tables_relations</b> (Tables relations)
📊 <b>dbo.tables</b> (Tables and Views) (Foreign table)
📊 <b>dbo.tables</b> (Tables and Views) (Primary table)


## Used by

Name
📊 <b>dbo.tables_relations</b> (Tables relations)
📊 <b>dbo.erd_links</b> (ERD Links)
📊 <b>dbo.tables_relations_columns</b> (Tables relations' columns)




### 2.1.10. Table: `dbo.tables_relations_columns` (Tables relations' columns)

Stores foreign keys columns. Each row represents one column pair: `column_fk_id` and `column_pk_id`.


#### Columns

Name		Data type	N	Description / Attributes
	<code>table_relation_column_id</code>	int		Row ID. Identity / Auto increment column
	<code>table_relation_id</code>	int		Link to table relation row.
	<code>column_fk_id</code>	int		Foreign table column ID.
	<code>column_pk_id</code>	int		Primary table column ID.
	<code>ordinal_position</code>	int		Column position in relation.
	<code>status</code>	char(1)		'D' if relation column was deleted from DBMS, 'A' otherwise Default: 'A'
	<code>creation_date</code>	datetime		Standard row creation timestamp. Default: <code>getdate()</code>
	<code>created_by</code>	nvarchar(100)	N	Database/Dataedo username that created row. Default: NULL
	<code>last_modification_date</code>	datetime		Standard row last update timestamp. Default: <code>getdate()</code>
	<code>modified_by</code>	nvarchar(100)	N	Database/Dataedo username that last updated row. Default: NULL

#### Links to

Table		Join	Title / Name / Description
	<code>dbo.columns</code> (Columns)	<code>dbo.tables_relations_columns.column_fk_id = dbo.columns.column_id</code>	<code>FK_tables_relations_columns_column_fk</code>
	<code>dbo.columns</code> (Columns)	<code>dbo.tables_relations_columns.column_pk_id = dbo.columns.column_id</code>	<code>FK_tables_relations_columns_column_pk</code>
	<code>dbo.tables_relations</code> (Tables relations)	<code>dbo.tables_relations_columns.table_relation_id = dbo.tables_relations.table_relation_id</code>	<code>FK_tables_relations_columns_relation</code>





#### Unique keys

Columns		Name / Description
	<code>table_relation_column_id</code>	<code>PK_tables_relations_columns</code> Table primary key.

#### Triggers

Name		When	Description
	<code>trg_tables_relations_cols_Modify</code>	After Insert, Update	Standard insert/update trigger setting <code>last_modification_date</code> , modified by columns


## Uses

Name
 <b>dbo.tables_relations_columns</b> (Tables relations' columns)
 <b>dbo.columns</b> (Columns)
 <b>dbo.columns</b> (Columns)
 <b>dbo.tables_relations</b> (Tables relations)

### 2.1.11. Table: dbo.triggers (Triggers)

Holds table triggers.


#### Columns

	Name	Data type	N	Description / Attributes
	trigger_id	int		Row ID. Identity / Auto increment column
	table_id	int		Table the trigger is related to. Ref: tables.
	name	nvarchar(250)		Trigger name.
	description	nvarchar(MAX)	<i>N</i>	Trigger description defined with Dataedo.
	before	bit		Is triggered before (1 - yes) Default: 0
	after	bit		Is triggered after (1 - yes) Default: 0
	instead_of	bit		Is triggered instead of (1 - yes) Default: 0
	on_insert	bit		Is triggered on insert (1 - yes) Default: 0
	on_update	bit		Is triggered on update (1 - yes) Default: 0
	on_delete	bit		Is triggered on delete (1 - yes) Default: 0
	disabled	bit		Is disabled (1 - yes) Default: 0
	definition	nvarchar(MAX)	<i>N</i>	Trigger script imported from DBMS.
	status	char(1)		'D' if trigger was deleted from DBMS, 'A' otherwise Default: 'A'
	creation_date	datetime		Standard row creation timestamp. Default: getdate()
	created_by	nvarchar(100)	<i>N</i>	Database/Dataedo username that created row. Default: user_name()
	last_modification_date	datetime		Standard row last update timestamp. Default: getdate()
	modified_by	nvarchar(100)	<i>N</i>	Database/Dataedo username that last updated row. Default: user_name()

## Links to

Table	Join	Title / Name / Description
 <code>dbo.tables</code> (Tables and Views)	<code>dbo.triggers.table_id = dbo.tables.table_id</code>	FK_triggers_table



## Unique keys

Columns	Name / Description
 <code>trigger_id</code>	PK_triggers Table primary key.

## Triggers

Name	When	Description
 <code>trg_triggers_Modify</code>	After Insert, Update	Standard insert/update trigger setting last_modification_date, modified by columns


## Uses

Name
 <code>dbo.triggers</code> (Triggers)
 <code>dbo.tables</code> (Tables and Views)

### 2.1.12. Table: `dbo.unique_constraints` (Unique keys)

Holds table unique keys, either defined in DBMS or by user in Dataedo. The two types are distinguished by source column (DBMS/USER).

## Columns

Name	Data type	N	Description / Attributes
 <code>unique_constraint_id</code>	int		Row ID. Identity / Auto increment column
<code>table_id</code>	int		Table to which unique key belongs.
<code>source</code>	nvarchar(50)		'DBMS' for imported from DBMS, 'USER' for defined by user in repository only. Default: 'USER'
<code>name</code>	nvarchar(250)		Unique constraint name from DBMS or assigned by user if constraint is user defined.
<code>description</code>	nvarchar(MAX)	<i>N</i>	Unique key description defined with Dataedo.
<code>primary_key</code>	bit		1 when key is primary key, 0 when regular unique key
<code>status</code>	char(1)		'D' if unique key was deleted from DBMS, 'A' otherwise Default: 'A'
<code>creation_date</code>	datetime		Standard row creation timestamp. Default: getdate()
<code>created_by</code>	nvarchar(100)	<i>N</i>	Database/Dataedo username that created row. Default: user_name()
<code>last_modification_date</code>	datetime		Standard row last update timestamp. Default: getdate()
<code>modified_by</code>	nvarchar(100)	<i>N</i>	Database/Dataedo username that last updated row. Default: user_name()
<code>disabled</code>	bit	<i>N</i>	1 when imported key is disabled (only DBMS)

## Links to

	Table	Join	Title / Name / Description
➤	dbo.tables (Tables and Views)	<b>dbo.unique_constraints</b> .table_id = dbo.tables.table_id	FK_unique_constraints_tables

## Linked from

	Table	Join	Title / Name / Description
➤	dbo.unique_constraints_columns (Unique keys' columns)	<b>dbo.unique_constraints</b> .unique_constraint_id = dbo.unique_constraints_columns.unique_constraint_id	FK_unique_constraints_columns_unique_constraints

## Unique keys

	Columns	Name / Description
🔑	unique_constraint_id	PK_unique_constraints Table primary key.

## Triggers

	Name	When	Description
⚡	trg_unique_constraints_Modify	After Insert, Update	Standard insert/update trigger setting last_modification_date, modified by columns

## Uses

	Name
📊	<b>dbo.unique_constraints</b> (Unique keys)
📊	dbo.tables (Tables and Views)

## Used by

	Name
📊	<b>dbo.unique_constraints</b> (Unique keys)
📊	dbo.unique_constraints_columns (Unique keys' columns)

### 2.1.13. Table: dbo.unique\_constraints\_columns (Unique keys' columns)

Stores unique key columns.

## Columns

	Name	Data type	N	Description / Attributes
🔑	unique_constraint_column_id	int		Row ID. Identity / Auto increment column
	unique_constraint_id	int		Ref: unique key.
	column_id	int		Ref: table/view column.
	ordinal_position	int		Column position in index/constraint.
	status	char(1)		'D' if unique key column was deleted from DBMS, 'A' otherwise Default: 'A'
	creation_date	datetime		Standard row creation timestamp. Default: getdate()

Name	Data type	N	Description / Attributes
created_by	nvarchar(100)	N	Database/Dataedo username that created row. Default: user_name()
last_modification_date	datetime		Standard row last update timestamp. Default: getdate()
modified_by	nvarchar(100)	N	Database/Dataedo username that last updated row. Default: user_name()

## Links to

Table	Join	Title / Name / Description
➤ <b>dbo.columns</b> (Columns)	<b>dbo.unique_constraints.columns.column_id</b> = <b>dbo.columns.column_id</b>	FK_unique_constraints_columns_columns
➤ <b>dbo.unique_constraints</b> (Unique keys)	<b>dbo.unique_constraints.columns.unique_constraint_id</b> = <b>dbo.unique_constraints.unique_constraint_id</b>	FK_unique_constraints_columns_unique_constraints

## Unique keys

Columns	Name / Description
🔑 <b>unique_constraint_column_id</b>	<b>PK_unique_constraints_columns</b> Table primary key

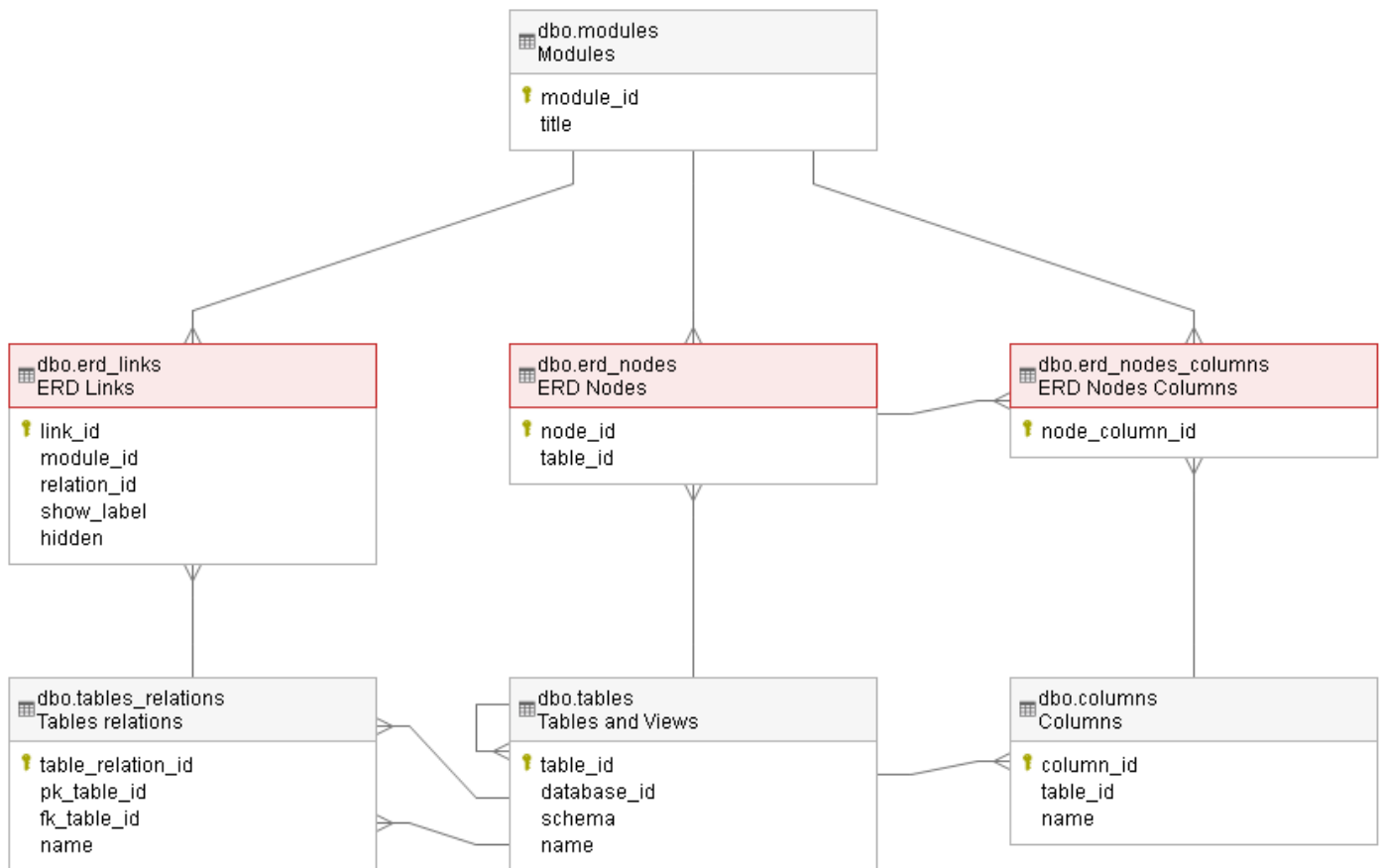
## Triggers

Name	When	Description
⚡ <b>trg_unique_constraints_cols_Modify</b>	After Insert, Update	Standard insert/update trigger setting last_modification_date, modified by columns

## Uses

Name
📊 <b>dbo.unique_constraints_columns</b> (Unique keys' columns)
📊 <b>dbo.columns</b> (Columns)
📊 <b>dbo.unique_constraints</b> (Unique keys)

### 3. ERDs



Tables describing ERD objects, their position and links.

#### 3.1. Tables

##### 3.1.1. Table: `dbo.erd_links` (ERD Links)

Represents relationships between entities in a specific ERD. Every ERD relationship references a relation defined between tables/views in a Dataedo repository.

This relation is either an imported foreign key defined in source database or a user-defined one in Dataedo repository through ERD or Relations tab.

Each relationship is linked to table/view relations in `tables_relations` table with `relation_id` column. ERD is identified by `module_id` column.

Holds information about link style, link visibility and label visibility.

##### Columns

	Name	Data type	N	Description / Attributes
🔑	link_id	int		Row ID Identity / Auto increment column
	module_id	int		Identifier of ERD. Ref: modules table.
	relation_id	int		Reference to relation that is represented on diagram. Ref: tables_relations table.
	label_pos_x	int	N	
	label_pos_y	int	N	



Name	Data type	N	Description / Attributes
show_label	bit		If 1 then relationship label is displayed in ERD. Default value is 0. Default: 0
creation_date	datetime		Standard row creation timestamp Default: getdate()
created_by	nvarchar(100)	N	Database/Dataedo username that created row. Default: NULL
last_modification_date	datetime		Standard row last update timestamp. Default: getdate()
modified_by	nvarchar(100)	N	Database/Dataedo username that last updated row. Default: NULL
hidden	bit		If 1 then relationship is hidden in ERD. Default value is 0. Default: 0
link_style	nvarchar(25)		'STRAIGHT' for a straight link style and 'ORTHOGONAL' for orthogonal one. The former is default. Default: 'STRAIGHT'
show_join_condition	bit	N	Default: 0

## Links to

Table	Join	Title / Name / Description
➤ <code>dbo.modules</code> (Modules)	<code>dbo.erd_links.module_id = dbo.modules.module_id</code>	FK_erd_links_modules
➤ <code>dbo.tables_relations</code> (Tables relations)	<code>dbo.erd_links.relation_id = dbo.tables_relations.table_relation_id</code>	FK_erd_links_tables_relations

## Unique keys

Columns	Name / Description
🔑 <code>link_id</code>	PK_erd_links Table primary key.
🔑 <code>module_id, relation_id</code>	UK_erd_links_relation

## Uses

Name
📊 <code>dbo.erd_links</code> (ERD Links)
📊 <code>dbo.modules</code> (Modules)
📊 <code>dbo.tables_relations</code> (Tables relations)

### 3.1.2. Table: `dbo.erd_nodes` (ERD Nodes)

Represents entity (table or view) in a specific ERD. Each node is linked to a table/view in *tables* table with *table\_id* column.

ERD is identified by *module\_id* column.

Holds information about node position and color.

## Columns

Name	Data type	N	Description / Attributes
🔑 <code>node_id</code>	int		Row ID. Identity / Auto increment column
<code>module_id</code>	int		Identifier of ERD. Ref: modules table.

Name		Data type	N	Description / Attributes
	table_id	int		Reference to table/view that is represented on diagram. Ref: tables table.
	pos_x	int	<i>N</i>	X position on diagram. 0 is the center of a diagram. Can be negative.
	pos_y	int	<i>N</i>	Y position on diagram. 0 is the center of a diagram. Can be negative.
	color	char(7)	<i>N</i>	Box color. Eg. #4CAF50
	width	int	<i>N</i>	Box width.
	height	int	<i>N</i>	Box height. Currently not used.
	creation_date	datetime		Standard row creation timestamp. Default: getdate()
	created_by	nvarchar(100)	<i>N</i>	Database/Dataedo username that created row. Default: NULL
	last_modification_date	datetime		Standard row last update timestamp. Default: getdate()
	modified_by	nvarchar(100)	<i>N</i>	Database/Dataedo username that last updated row. Default: NULL

## Links to

Table		Join	Title / Name / Description
➤	dbo.modules (Modules)	<b>dbo.erd_nodes</b> .module_id = dbo.modules.module_id	FK_erd_nodes_modules
➤	dbo.tables (Tables and Views)	<b>dbo.erd_nodes</b> .table_id = dbo.tables.table_id	FK_erd_nodes_tables

## Linked from

Table		Join	Title / Name / Description
⬅	dbo.erd_nodes_columns (ERD Nodes Columns)	<b>dbo.erd_nodes</b> .node_id = dbo.erd_nodes_columns.node_id	FK_erd_nodes_columns_erd_nodes

## Unique keys

Columns		Name / Description
🔑	node_id	PK_erd_nodes Table primary key.
🔑	module_id, table_id	uK_erd_nodes_table

## Uses

Name	
📊	<b>dbo.erd_nodes</b> (ERD Nodes)
📊	dbo.modules (Modules)
📊	dbo.tables (Tables and Views)

## Used by


Name	
📊	<b>dbo.erd_nodes</b> (ERD Nodes)
📊	dbo.erd_nodes_columns (ERD Nodes Columns)

### 3.1.3. Table: dbo.erd\_nodes\_columns (ERD Nodes Columns)




Holds information about visible table/view columns on an ERD - if a column is in this table then it is visible on a diagram.

ERD is identified by *module\_id* column. *Column\_id* references *columns* table.

#### Columns

Name		Data type	N	Description / Attributes
	node_column_id	int		Row ID. Identity / Auto increment column
	module_id	int		Identifier of ERD. Ref: modules table.
	node_id	int		Ref: erd_nodes table.
	column_id	int		Ref: columns table.





#### Links to

Table		Join	Title / Name / Description
	dbo.columns (Columns)	<b>dbo.erd_nodes_columns.column_id =</b> dbo.columns.column_id	FK_erd_nodes_columns_columns
	dbo.erd_nodes (ERD Nodes)	<b>dbo.erd_nodes_columns.node_id =</b> dbo.erd_nodes.node_id	FK_erd_nodes_columns_erd_nodes
	dbo.modules (Modules)	<b>dbo.erd_nodes_columns.module_id =</b> dbo.modules.module_id	FK_erd_nodes_columns_modules

#### Unique keys

Columns		Name / Description
	node_column_id	PK_erd_nodes_columns

#### Uses

Name	
	<b>dbo.erd_nodes_columns (ERD Nodes Columns)</b>
	dbo.columns (Columns)
	dbo.erd_nodes (ERD Nodes)
	dbo.modules (Modules)

## 4. Dependencies

Structure for storing object dependencies.  
Currently not used.

### 4.1. Tables

#### 4.1.1. Table: dbo.dependencies (Dependencies)


Object dependencies imported from source database.

It links two objects of various types - tables, views, procedures, functions and triggers. There is *referencing* object and *referenced* object. *Referencing* object depends on *referenced* object.

Because those objects may not be imported to repository or exist in other databases foreign and primary keys are not used. A combination of fields is used to identify object: server, database, schema, name and type.

Please note that unlike most of other tables, rows in this one are not related to any specific documentation/database.

#### Columns

	Name	Data type	N	Description / Attributes
	dependency_id	int		Row ID. Identity / Auto increment column
	referencing_server	nvarchar(250)	N	Referencing object server name.
	referencing_database	nvarchar(250)	N	Referencing object database name.
	referencing_schema	nvarchar(250)	N	Referencing object schema name.
	referencing_name	nvarchar(250)		Referencing object name.
	referencing_type	nvarchar(50)		Referencing object type: TABLE, VIEW, PROCEDURE, FUNCTION, TRIGGER
	referenced_server	nvarchar(250)	N	Referenced object server name.
	referenced_database	nvarchar(250)	N	Referenced object database name.
	referenced_schema	nvarchar(250)	N	Referenced object schema name.
	referenced_name	nvarchar(250)		Referenced object name.
	referenced_type	nvarchar(50)	N	Referenced object type: TABLE, VIEW, PROCEDURE, FUNCTION, TRIGGER
	is_caller_dependent	char(1)	N	
	is_ambiguous	char(1)	N	
	dependency_type	nvarchar(10)	N	Dependency type imported from DBMS.
	status	char(1)		Default: 'A'
	source	nvarchar(50)		Default: 'DBMS'
	creation_date	datetime		Standard row creation timestamp. Default: getdate()
	created_by	nvarchar(100)	N	Database/Dataedo username that created row. Default: NULL
	last_modification_date	datetime		Standard row last update timestamp. Default: getdate()
	modified_by	nvarchar(100)	N	Database/Dataedo username that last updated row. Default: NULL

## Unique keys


Columns		Name / Description
	dependency_id	PK_dependencies Table primary key.

### 4.1.2. Table: dbo.dependencies\_descriptions (Dependencies descriptions)

Descriptions of dependencies elements provided in Dataedo repository.

In contrast with dependencies, dependency descriptions are related to a specific documentation/database. Same dependency may have different descriptions if dependency is between objects in two different databases.


## Columns

	Name	Data type	N	Description / Attributes
	dependency_descriptions_id	int		Row ID. Identity / Auto increment column
	database_id	int		Documentation which description is part of. Ref: databases.
	referencing_server	nvarchar(250)	N	Referencing object server name.
	referencing_database	nvarchar(250)	N	Referencing object database name.
	referencing_schema	nvarchar(250)	N	Referencing object schema name.
	referencing_name	nvarchar(250)		Referencing object name.
	referencing_type	nvarchar(50)		Referencing object type.
	referenced_server	nvarchar(250)	N	Referenced object server name.
	referenced_database	nvarchar(250)	N	Referenced object database name.
	referenced_schema	nvarchar(250)	N	Referenced object schema name.
	referenced_name	nvarchar(250)		Referenced object name.
	referenced_type	nvarchar(50)	N	Referenced object type.
	description	nvarchar(MAX)	N	Description provided by user in repository.
	ordinal_position_uses	int	N	Position used in sorting elements on dependencies list in a tree in uses tab.
	ordinal_position_used_by	int	N	Position used in sorting elements on dependencies list in a tree in used by tab.
	creation_date	datetime		Standard row creation timestamp. Default: getdate()
	created_by	nvarchar(100)	N	Database/Dataedo username that created row. Default: NULL
	last_modification_date	datetime		Standard row last update timestamp. Default: getdate()
	modified_by	nvarchar(100)	N	Database/Dataedo username that last updated row. Default: NULL



## Links to

Table	Join	Title / Name / Description
 dbo.databases (Documentations)	dbo.dependencies_descriptions.database_id = dbo.databases.database_id	FK_dependencies_descriptions_databases

Unique keys

Columns		Name / Description
	dependency_descriptions_id	PK_dependencies_descriptions Table primary key.

Uses

Name	
	dbo.dependencies_descriptions (Dependencies descriptions)
	dbo.databases (Documentations)

## 5. Utils


Utility tables used by Dataedo.

### 5.1. Tables


#### 5.1.1. Table: `dbo.ignored_objects` (Ignored objects)

Objects ignored from import from DBMS.

Columns

	Name	Data type	N	Description / Attributes
	<code>ignored_object_id</code>	<code>int</code>		Row ID. Identity / Auto increment column
	<code>database_id</code>	<code>int</code>		Documentation from which object was ignored.
	<code>schema</code>	<code>nvarchar(250)</code>	<i>N</i>	Schema name.
	<code>name</code>	<code>nvarchar(250)</code>		Database object name.
	<code>object_type</code>	<code>nvarchar(100)</code>		Type of database object: TABLE/VIEW/PROCEDURE/FUNCTION
	<code>creation_date</code>	<code>datetime</code>		Standard row creation timestamp. Default: <code>getdate()</code>
	<code>created_by</code>	<code>nvarchar(100)</code>	<i>N</i>	Database/Dataedo username that created row. Default: NULL
	<code>last_modification_date</code>	<code>datetime</code>		Standard row last update timestamp. Default: <code>getdate()</code>
	<code>modified_by</code>	<code>nvarchar(100)</code>	<i>N</i>	Database/Dataedo username that last updated row. Default: NULL

Links to

	Table	Join	Title / Name / Description
	<code>dbo.databases</code> (Documentations)	<code>dbo.ignored_objects.database_id = dbo.databases.database_id</code>	<code>FK_ignored_objects_databases</code>



Unique keys

	Columns	Name / Description
	<code>ignored_object_id</code>	<code>PK_ignored_objects</code> Table primary key.

Triggers

	Name	When	Description
	<code>trg_ignored_objects_Modify</code>	After Insert, Update	Standard insert/update trigger setting <code>last_modification_date</code> , modified by columns


Uses

	Name
	<code>dbo.ignored_objects</code> (Ignored objects)
	<code>dbo.databases</code> (Documentations)



#### 5.1.2. Table: `dbo.licenses` (Users and License keys)

User accounts and corresponding license keys.

## Columns

	Name	Data type	N	Description / Attributes
	license_id	int		Row ID. Identity / Auto increment column
	login	nvarchar(1024)		Dataedo user login. This matches repository database login.
	key	varchar(256)		License key. That includes Free license key. This entry is further encrypted.
	host	nvarchar(50)	N	Name of host that user logged in from. 2 last hosts and dates are remembered.
	host2	nvarchar(50)	N	Name of second host that user logged in from. 2 last hosts and dates are remembered.
	host1_last_login	datetime	N	Date and time of last login from first host.
	host2_last_login	datetime	N	Date and time of last login from second host.
	creation_date	datetime		Standard row creation timestamp. Default: getdate()
	created_by	nvarchar(100)	N	Database/Dataedo username that created row. Default: NULL
	last_modification_date	datetime		Standard row last update timestamp. Default: getdate()
	modified_by	nvarchar(100)	N	Database/Dataedo username that last updated row. Default: NULL

## Unique keys

	Columns	Name / Description
	license_id	PK_licenses Table primary key
	login	UK_licenses_login Login is unique in repository user database.


## Triggers

	Name	When	Description
	trg_licenses_Modify	After Insert, Update	Standard insert/update trigger setting last_modification_date, modified by columns

### 5.1.3. Table: dbo.version (Repository version)

Holds information about repository version and updates. Each update to a new version creates a new row in table. If Version.update is greater than used Dataedo application version, you won't be able to connect to it.



## Columns

	Name	Data type	N	Description / Attributes
	version_entry_id	int		Row ID. Identity / Auto increment column
	version	int		Dataedo version (eg. 4).
	update	int	N	Repository update. This is still the same version, but a patch has been applied. Eg. 4.1. Default: 0
	stable	bit	N	1 when installation/upgrade was performed successfully, 0 when it was stopped for some reason.



Name		Data type	N	Description / Attributes
	installation_date	datetime	<i>N</i>	Time of repository installation/upgrade. Default: getdate()
	installed_by	nvarchar(100)	<i>N</i>	Name of Database/Dataedo user that upgraded repository. Default: NULL
	creation_date	datetime		Standard row creation timestamp. Default: getdate()
	created_by	nvarchar(100)	<i>N</i>	Database/Dataedo username that created row. Default: NULL
	last_modification_date	datetime		Standard row last update timestamp. Default: getdate()
	modified_by	nvarchar(100)	<i>N</i>	Database/Dataedo username that last updated row. Default: NULL

## Unique keys

Columns		Name / Description
	version_entry_id	PK_version Table primary key.
	version, update	UK_version Version and update must be unique.

## Triggers

Name		When	Description
	trg_version_Modify	After Insert, Update	Standard insert/update trigger setting last_modification_date, modified by columns

## 6. Interface