

O*NET 20.0 Database (SQL Format)

August 2015

Introduction

This document provides notes specific to the SQL format release of the O*NET 20.0 database. For comprehensive information on the contents, structure, and relationship of the database files, and a history of changes in each database release, please consult the O*NET Data Dictionary 20.0, available at:

http://www.onetcenter.org/dl_files/DataDictionary20_0.pdf

New in 20.0

102 occupations were updated by job incumbents and occupational experts, bringing the total to 953, in this sixteenth major update from the O*NET Data Collection Program. Highlights of this update include:

- Addition and update of Task Statement ratings (importance, relevance, and frequency) for 102 occupations
- Addition and update of Abilities, Skills, Work Activities, Knowledge, and Work Context data for 102 occupations
- Addition and update of Training and Work Experience and Education data for 102 occupations
- Addition and update of Work Styles data for 102 occupations
- Addition and update of Job Zones data for 102 occupations
- Addition and update of Detailed Work Activities (DWAs) and linkages for 56 occupations

File Structure

The SQL format release represents the O*NET database as a set of 29 relational database tables. Each text file in the release contains SQL statements describing the structure and contents of a single table. For information on the purpose and structure of each table, consult the O*NET Data Dictionary 20.0. See also the section “Data Dictionary Supplemental Notes” below.

Primary and foreign keys are specified to reflect the relationships between O*NET database tables. Some database systems enforce these relationships, and require tables to be loaded in a particular order. Each SQL file is preceded by a number; to avoid errors, load each file in numeric order. Consult your database system documentation for more information on key constraints.

Loading SQL Files

Database 20.0 for Microsoft SQL Server: O*NET database files can be loaded using the **SQL Server Management Studio** utility. Open each SQL file in that utility, select the destination database in the SQL Editor toolbar, and click **Execute** in the SQL Editor toolbar.

Database 20.0 for MySQL: O*NET database files can be loaded using the **mysql** utility. Use the **source** command to import each file. For example, to load the Content Model Reference table, you might enter the command:

```
source C:\db_20_0_mysql\01_content_model_reference.sql
```

Database 20.0 for Oracle: O*NET database files can be loaded using the **SQL Plus** utility. Use the **@** command to import each file. For example, to load the Content Model Reference table, you might enter the command:

```
@C:\db_20_0_oracle\01_content_model_reference.sql
```

Compatibility

The SQL format release has been tested on the following database systems. The files may be compatible with other products or versions, but consult your database system documentation for further information.

Database 20.0 for Microsoft SQL Server:

- SQL Server 2008 R2

Database 20.0 for MySQL:

- MySQL 5.1.73, 5.6.19
- PostgreSQL 9.3.4
- SQLite 3.7.13
- Firebird 2.5.2

Database 20.0 for Oracle:

- Oracle 11g, version 11.2.0.1.0

Data Dictionary Supplemental Notes

Developers should keep the following SQL-specific items in mind when consulting the O*NET Data Dictionary:

- To conform to SQL standards, column and table names have been reformatted. For example, the column “O*NET-SOC Code” is formatted as “onetsoc_code” in the SQL files. The column “Date” has been renamed to “date_updated” to avoid conflict with a reserved SQL keyword.

- For maximum compatibility with different database systems, the DECIMAL data type has been used for all numeric columns. A column listed as “FLOAT(4,2)” in the Data Dictionary is represented as “DECIMAL(4,2)” in the SQL files. A column listed as “INTEGER(3)” is represented as “DECIMAL(3,0)” in the SQL files.
- Columns that represent dates are represented with the SQL DATE data type. While this data type specifies a year, month, and day, only the year and month are significant for O*NET metadata purposes.
- The Data Dictionary lists an “Element Name” column for most domain-specific tables. This column is redundant information, and excluded from the SQL format tables. SQL developers should instead use the “Element ID” foreign key to join to the Content Model Reference table, and retrieve the element names from there.