ompp_export_excel.py

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1   Introduction

`ompp_export_excel.py` is a Python utility script to export model output data from an OMPP-compatible SQLite database into Excel files.

By processing the contents of a given SQLite database, `ompp_export_excel.py` creates either a single Excel file with all tables as sheets or multiple Excel files, one for each table, based on the output settings.

2   Usage

To run the script, invoke the Python interpreter with `ompp_export_excel.py`, followed by two arguments: the input SQLite database file and the output path where the Excel files will be generated.

Example Syntax

```
python ompp_export_excel.py <input-sqlite-file> <output-path>
```

Arguments

`<input-sqlite-file>` The path to the SQLite database that contains OMPP model output tables.

`<output-path>` The path to the directory or file where the script will write the Excel output. If a directory is provided, multiple Excel files are generated (one per table). If a file path is provided, a single Excel file with multiple sheets is created.

3 Example

Below is an example of the script run. This example uses the RiskPaths
model output database and exports data to the user's desktop folder `excelFiles`.

```
C:\OpenM\openm\libopenm\common> python ompp_export_excel.py C:\OpenM\models\Risk
```

As the script runs, it displays informational messages for each processed
table and confirms where the Excel files are written:

```
ompp_export_excel: Processing table 'T01_LifeExpectancy'
write_to_excel_file: Data written to 'C:\Users\parsaba\Desktop\exce

ompp_export_excel: Processing table 'T02_TotalPopulationByYear'
write_to_excel_file: Data written to 'C:\Users\parsaba\Desktop\exce

ompp_export_excel: Successfully exported 'C:\OpenM\models\RiskPaths
                   to 'C:\Users\parsaba\Desktop\excelFiles\'

ompp_export_excel: Database connection closed.
```

This output confirms that each table has been processed and that the
corresponding Excel files have been created successfully.

4 File Contents

Each generated Excel file contains the full contents of a single table from the
SQLite database. If exporting to a single Excel file, each table is written to
a separate sheet, with sheet names truncated to 31 characters if necessary.

5 Error Handling

If the input database does not exist or the output path is invalid, the script
logs an error message and stops. Common errors include:

- **Database file not found**: The specified SQLite database file does
  not exist.

- **Permission denied**: The script lacks write permissions for the output
  path.

- **Unexpected runtime errors**: These are logged to help diagnose and
  fix problems quickly.

6   Warnings

When exporting tables with long names, a warning is logged if the sheet name exceeds 31 characters. This limitation is due to Excel's constraints on sheet names.