# Export Model with Measure Changes

## Overview

The ExportModelWithMeasureChanges measure is designed to facilitate the export and archival of a modified OpenStudio Model (OSM) file after simulation measures have been applied. It ensures that the final OSM file, reflecting all applied measures, is saved in a specified location with a user-defined or default naming convention. This is particularly useful for archiving the modified model after simulations and measures have been executed.

## Key Features

- Exports the in.osm file created during the simulation.

- Moves the file to a specified directory, renaming it according to user-defined or default naming conventions.

- Custom File Name: Users can specify a custom name for the exported OSM file. If not provided, the default name {name_of_parent_model}_wMeasures.osm is used.

- Destination Directory: The measure offers two options:


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- Versioning: Includes an option for versioning, which appends an incrementing version number to the exported file name. Users can specify a suffix to be included before the version number.

- Parent Model Identification: The measure identifies the parent model file (excluding temporary files) from the directory above the root simulation directory.

- Path Determination: The appropriate destination directory and file name are determined based on user inputs.

- File Operation: The in.osm file from the simulation is copied to the chosen directory with the specified name, overwriting any existing file with the same name.

- Error Checking: Ensures that all required inputs are valid. For instance, it checks if the custom path is provided when "Custom Path" is selected and if the source in.osm file exists.

- Informative Logging: Registers informative messages and warnings throughout the process to assist with debugging and ensure users are aware of the measure's operations.

## User Inputs

## Use Cases

This measure is particularly useful when you want to archive OSM files after applying simulation measures. By exporting the model with a versioned name, you can keep track of changes and iterations during your project.

When working in environments where project files need to be stored in specific directories, this measure allows you to define a custom path for exporting the final OSM model, ensuring it fits within your project?s organizational structure.

## Troubleshooting

- No Parent Model Found: Ensure that the directory structure is correct and that the parent model file exists in the expected location.

- Missing Custom Path: If "Custom Path" is selected as the destination directory, ensure that a valid path is provided.

- Source File Not Found: Ensure that the simulation has been run and that the in.osm file exists in

the expected location.

## Example

Assume you want to export the modified OSM file to a custom directory with versioning enabled.

You would set the following arguments:

- custom_name: MySimulationModel

- destination_dir: Custom Path

- custom_path: /path/to/my/directory

- use_versioning: True

- version_suffix: _v

The measure would then export the file as /path/to/my/directory/MySimulationModel_v1.osm, creating the directory if it doesn?t exist.