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**HyperWorks**

## HS-1605: Setting Up an ANSYS Workbench Model

In this tutorial you will learn how to setup an Ansys workbench model in HyperStudy. HyperStudy's interaction with Workbench is based on interpreting Workbench inputs as input variables and Workbench direct output as output responses. The inputs and direct outputs must be identified in the Workbench project file (\*.wbpj).

There are no files associated with this tutorial. A valid copy of Ansys Workbench and a user supplied properly constructed Workbench project file are required to execute this tutorial.

### Step 1: Perform the Study Setup


1. To start a new study, click **File** > **New** from the menu bar, or click  on the toolbar.
2. In the **HyperStudy – Add** dialog, enter a study name, select a location for the study, and click **OK**.
3. Go to the **Define models** step.
4. Add a Workbench project file (\*.wbpj) by dragging-and-dropping it from the **Directory** into the work area.

Data is inserted into the **Solver input file**, **Solver execution script**, and **Solver input arguments** columns.

**Note:** The **Message log** reports the number of imported input variables and output responses based on the existing inputs and direct outputs defined in your Workbench project file.

5. Go to the **Define Input Variables** step.
6. Review the input variable's lower and upper bound ranges. Clear the checkboxes of any variables that should not be considered for this study.
7. Go to the **Specifications** step.

### Step 2: Register Workbench Solver

1. From the menu bar, click **Edit** > **Register Solver Script**. The **Register Solver Script** dialog opens.
2. In the **Path** column of the script **Workbench**, click .
3. In the **Open** dialog, select the appropriate path to the workbench executable on your computer.
4. Optional. Click **Save** to save these settings to a preference file (\*.mvw) for future use.

**Note:** Do not overwrite the system preferences file, which is located in <install\_directory>/hw by default.

5. Click **Close**.

### Step 3: Perform the Nominal Run

1. In the work area, set the **Mode** to **Nominal Run**.
2. Click **Apply**.
3. Go to the **Evaluate** step.
4. Click **Evaluate Tasks**. An `approaches/nom_1/` directory is created inside the study directory.
5. Go to the **Define Output Responses** step.

### Step 4: Review Output Responses

1. Review the output responses extracted from Workbench project file (\*.wbproj) selected in step 1.7.
2. Optional. Clear the checkboxes of any output responses that should not be considered for this study.