

# Autodesk Dynamo Script: Automating Details from Linked Model

This Dynamo script provides a workflow for automating the transfer of drafting views and their associated detail items from a source Revit model into your active project. This is a manual-build guide; search for and connect the nodes as described.

## Workflow Overview

1. **Select a Linked Model:** Choose the Revit file you want to pull details from.
2. **Find Drafting Views:** Identify the specific drafting views in the linked model that contain the details you need.
3. **Duplicate Views:** Duplicate these drafting views into your active project.
4. **Transfer Details:** Copy the detail items (e.g., lines, filled regions, text) from the views in the linked model to the newly created views in your active project.

## Dynamo Nodes and Connections

### Part 1: Select the Source Revit File

1. **File Path:**
  - Description: Selects the path to the source Revit file that contains the detail information.
  - Input: Manually browse to the file.
  - Output: string (file path).
2. **RevitLinkInstance.ByPath:**
  - Description: Links the external Revit file into the Dynamo session. This allows you to query elements within that file.
  - Input: The string output from the File Path node.
  - Output: RevitLinkInstance.

### Part 2: Find the Drafting Views to Duplicate

3. **Categories:**
  - Description: Lists all Revit categories.
  - Input: None.
  - Output: Revit.DB.Category.
4. **All Elements of Category (from a linked file):**
  - Description: Retrieves all elements of a specific category from the linked model. This node is typically found in packages like "Rhythm" or "archi-lab.net".
  - Input:
    - linkInstance: The RevitLinkInstance output from Part 1.
    - category: Connect this to the Views output of the Categories node.

- Output: List of Drafting Views.

## 5. **String from Object:**

- Description: Converts the view elements into their names as strings.
- Input: The List of Drafting Views output from the previous step.
- Output: List of string (view names).

## Part 3: Duplicate the Views

### 6. **List.FilterByBooleanMask:**

- Description: Filters the list of views based on a boolean mask. This allows you to select only the views you want to duplicate.
- Input:
  - list: The List of Drafting Views from Part 2.
  - mask: Connect this to the output of a String.Contains node (see next step).
- Output: In (the filtered list of views).

### 7. **String.Contains:**

- Description: Checks if a string contains a specific substring. Use this to find views with a certain prefix (e.g., "DETAIL") or a specific name.
- Input:
  - string: The List of string (view names) from Part 2.
  - searchFor: A string node with the filter text (e.g., "DETAIL").
- Output: List of boolean (True/False for each view).

### 8. **Element.Duplicate (from a linked file):**

- Description: Duplicates elements from a linked model into the active project. This is a specialized node from a package like "Springs" or "archi-lab.net".
- Input: The filtered list of views (In from the List.FilterByBooleanMask node).
- Output: The newly duplicated drafting views in your project.

## Part 4: Transfer the Detail Items

### 9. **Elements in View:**

- Description: Gets all the elements that are placed on a view.
- Input: The original filtered list of drafting views (the In from step 6).
- Output: List of elements.

### 10. **DetailItem.Create (from a linked file):**

- Description: Creates new detail items from existing ones, transferring them from the linked model. This is another specialized node from a community package.
- Input: The List of elements from the previous step.
- Output: The newly created detail items in your project.

## Final Connection

- Connect the final DetailItem.Create node to a Watch node to see the results of the automation.
- Run the script!



GEODRONES | DESIGN SOLUTIONS

**Note:** The specific nodes for linking and transferring elements may vary depending on the Dynamo packages you have installed (e.g., Rhythm, archi-lab.net, Springs). Make sure to install and update these packages via the Dynamo Package Manager.