Connecting application inputs to other applications

Application inputs in the EPISODES Platform can be specified in several ways. There are two input selection options that allow to connect application inputs to other application: **Application output** and **Application input**.

When using **Application output** option the output of first application becomes the input of the next application. This option is useful when creating a sequence of tasks where results from one application should be passed on to the next application.

When using **Application input** option the input of the first application becomes the input of the next application. This option is useful when the given application should always have the same input as another application.

Contents of this guide

With this guide you will learn how to connect application inputs to other applications using *Application output and Application input* options. Please consult the Applications page for more information about creating and running applications.

Application output

Application output option enables to use the output of first application as the input for the next application. This option is useful when creating a sequence of tasks or a Workflow where results from one application should be passed on to the next application. Each time the first application is executed the input file for the next application is updated.

To use *Application output* option you need a first application which produces output of the given data type and second application which accepts input with compatible data type. When the first application produces multiple output files the first file with compatible data type will be selected.

Figures 1.1, 1.2, 1.3 show an example connection of two applications:

| Workspace tree | / û 2 | Transforma | ation to Equiva | alent Dimensions | ACTIONS ~ |
|-----------------------------|---------|--|-----------------|--|----------------------|
| □ 1_Catalog_LaiC | | File TransformationED | Description | The application applies the Transformation to Equiva | lent Dimensions (Las |
| CatalogToVecto Time.mat | | INPUTS | | | |
| Transformation | ionED 🔼 | Data vector () Required 1 file | SELECT FILES | | |

Figure 1.1 Configuring Application output step 1: There are two applications in the Workspace: CatalogToVectors application which returns Time. mat file (<u>Data vector</u>) and *TransformationED* application which accepts <u>Data vector</u> input. To create outputinput connection between CatalogToVe ctors application and TransformationED application click SELECT FILES button in TransformationED application view.

| Individual files Files from chosen directory Choose one application whose outputs | Application output | Application input | Automatic choice |
|--|-----------------------------------|------------------------|------------------|
| Choose one application whose output: | s (1 file) with matching | data type will be used | as inputs |
| | | | as inputs. |
| / | | | |
| ✓ CatalogToVectors | | | ~ |
| TransformationED | | | |

Figure 1.2 Configuring Application output step 2: Select Application output option and CatalogToVectors application as a source application.

| Workspace tree 🏾 🍠 📋 😂 | Transform | nation to Equivalent Dimensions | ACTIONS |
|--|----------------------------------|--|---------------------------------|
| / 1_Catalog_LaiChau.mat | File TransformationED | Description The application applies the Transformation EXPAND | n to Equivalent Dimensions (Las |
| | 1 | | |
| Time.mat | INPUTS | | |
| TransformationED Application output | Data vector ① Required 1 file | Output from chosen application 1 file included: CatalogToVectors/Time.mat | CHANGE |

Figure 1.3 Configuring Application output step 3: The only compatible output of *CatalogToVectors* application is *Time.mat* file so it becomes an input of *TransformationED* application. Each time the *CatalogToVectors* application is executed *Time.mat* output file is updated and passed to *TransformationED* application

Application input

Application input option enables to use the input of first application as the input for the next application, it copies input selection from one application to another and keeps it in sync. This option is useful when the given application should have the same input as the other application. Each time the first application's input is changed the next application's input is synchronized and updated.

To use *Application input* option you need a first application which accepts the input of the given data type and second application which accepts input with compatible data type. When the first application accepts multiple input files the first file with compatible data type will be selected.

| Figures 2.1, 2.2, 2.3, | , 2.4 show an examp | le connection of two | applications: |
|------------------------|---------------------|----------------------|---------------|
|------------------------|---------------------|----------------------|---------------|

| Workspace tree | â <i>C</i> | Catalog to \ | Vectors converter | ACTIONS |
|------------------------------------|------------|------------------------------|--|---------|
| BOBREK_catalog.mat | _ | File CatalogToVectors | Description Tool for converting a Catalog into a series of vectors that can be further useEXPAND | |
| CatalogToVectors CatalogFilter | | INPUTS | | |
| | | Catalog ① Required 1 file | BOBREK_catalog.mat | CLEAR |

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Figure 2.1 Configuring Application input option step 1: CatalogToVectors application has input of type Catalog set to BOBREK_catalog.mat file.

| Workspace tree | û <i>2</i> | Catalog filter | | ACTIONS ~ |
|--------------------------------|------------|--|--|-----------|
| BOBREK_catalog.mat | | File CatalogFilter | Description This application performs selection of catalog data by filtering fields specifi EXPAND | |
| CatalogToVectors CatalogFilter | | INPUTS | | |
| | | Data Catalog SELECT FILES Required 1 file | | |

Figure 2.2 Configuring Application input option step 2: CatalogFilter accepts input of type Data Catalog (subtype of Catalog). To create input input connection between CatalogToVectors input application and CatalogFilter application click SELECT FILES button on the CatalogFilter application view.

| Selec | t files | | | | × |
|-------|------------------|--------------------------------|--------------------------|---------------------------|------------------|
| In | ndividual files | Files from chosen directory | Application output | Application input | Automatic choice |
| 0 | Choose one app | lication whose inputs | (1 file) with matching d | lata type will be used as | inputs. |
| / | | | | | |
| • | CatalogToVectors | ; | | | ~ |
| • | CatalogFilter | | | | |
| | | | | | |
| ок | CANCEL | | | | |

Figure 2.3 Configuring Application input option step 3: Select Application input option and Catalog To Vectors application as a source application.

| Wo | | pace tree | @ € | Catalog filter | • | Α. | ACTIONS |
|----|---|---|-------------------|-------------------------------------|--|--|---------|
| | B | BOBREK_catalog.ma | | File CatalogFilter | Description | This application performs selection of catalog data by filtering fields specifi EXPAND | |
| , | • | CatalogToVectors CatalogFilter | | INPUTS | | | |
| | l | | Application input | t Data Catalog 3 Required 1 file | Input from chosen application 1 file included: BOBREK_catalog.mat | CHANGE | CLEAR |

Figure 2.4 Configuring Application input option step 4: The only compatible input of CatalogToVectors application is BOBREK_catalog.mat file so it becomes an input of CatalogFilter application. Now the input is in sync so each time the input of the CatalogToVectors application is changed or updated the input of CatalogFilter is also updated.

Related Documents

- Handling large files in workspace
- My Workspace

- Managing properties of workspace files
- Connecting application inputs to other applications
- Configuring application to run automatically "Autorun"