Global Data

**The Global Data** command allows the management of databases of information that may be referenced from individual nodes or links. This reduces data redundancy dramatically and associated problems of updating at many places when changes are made. The Global Database records for RDII can now be both imported and exported using the Import/Export External Databases wizard. Previously only import was supported but now we can have records both imported and exported allowing changes in XP to easily go back to a referenced geodatabase or other tabular source.

This page contains the following topics:

- General Information
- Global Database Selection
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- Rename Record
- Edit Record
- Delete Record

General Information

Each global Database Type relates to a grouping of related data items. There can be any number of database records for each database type.
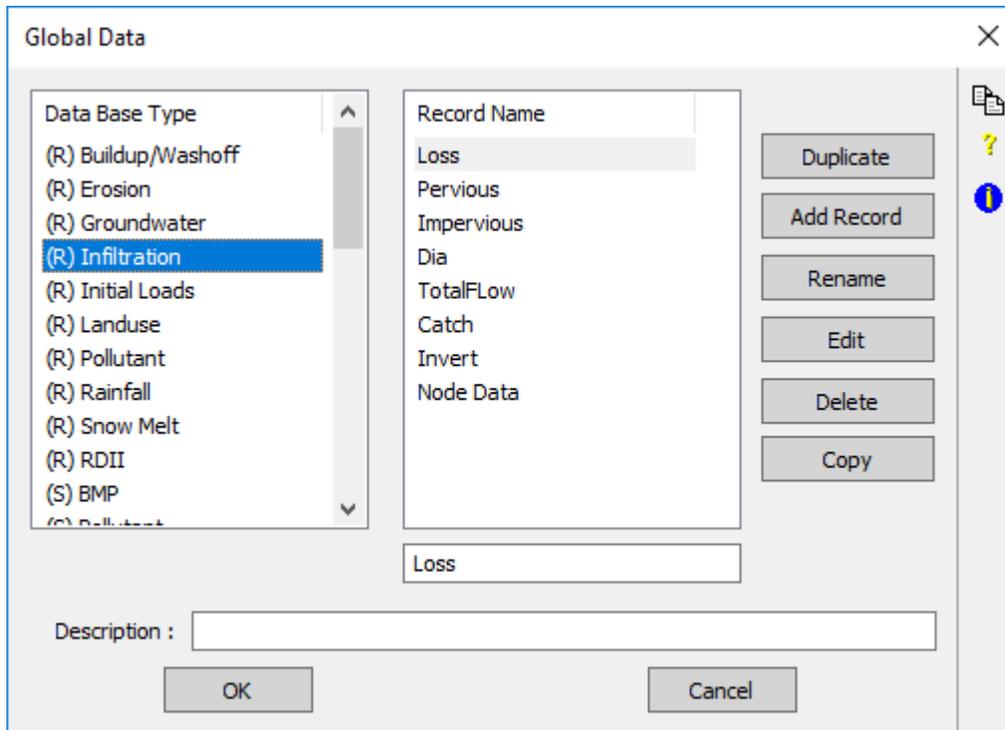

Each database record has a name, which will be referenced from a node or link dialog (or Job Control), and a description. Hitting the EDIT button causes the dialog containing the data for the highlighted Database Type and database Record Name to be displayed.

> ⚠
> - (**R**) – *Runoff Mode*, (**S**) – *Sanitary Mode* (**H**) – *Hydraulics Mode*
> - For XPSWMM/XPStorm 2015, the Global Database records for RDII can now be both imported and exported using the Import/Export External Databases wizard. Previously only import was supported; with the 2015 release, users now have the option to export RDII records, allowing changes in xp to easily go back to a referenced geodatabase or other tabular source.

Global Database Selection

Global Database records are selected from a data dialogue associated with a node or link. For a field corresponding to one database type, when you click on the selection button you will be presented with a list of all currently available global database records.
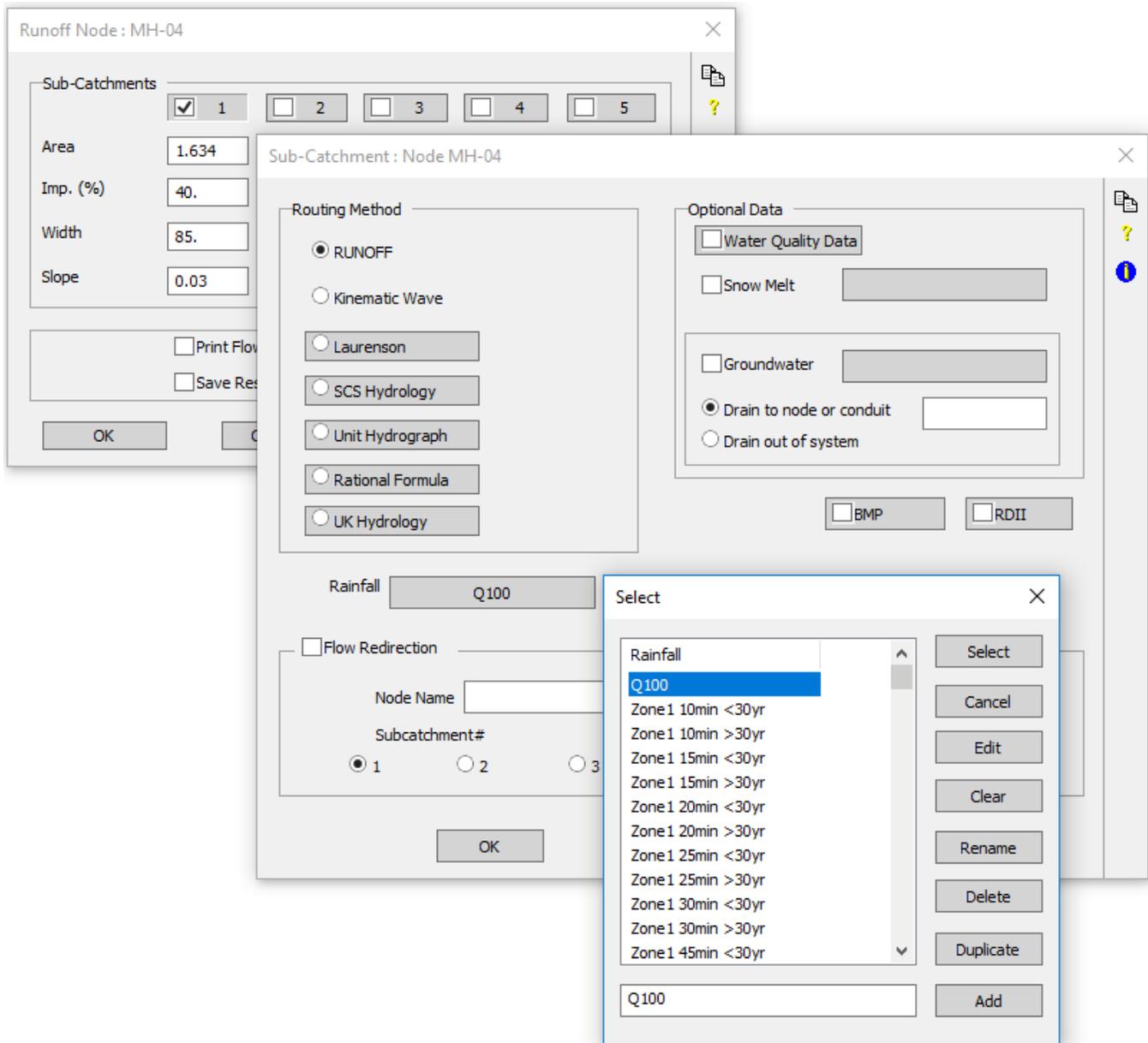
In the example shown below, in the data dialogue for Sub-catchment #1 of Node MH1, clicking on the selection button for Rainfall opens the Rainfall Global Data selection. Clicking on the selection button for Infiltration opens the Infiltration Global Data selection.

The Database Type shown in the selection list box will depend on the context of the parent node or link.

Select Will select the currently highlighted record and display this name in the selection button of the parent (calling) dialog.

Cancel Will cancel the selection and leave the selection button of the parent (calling) dialog unchanged.

Edit Will allow you to edit the information for this record of the **Database Type** shown. All nodes referencing this database record will inherit the edited data.

Clear will clear the database record name shown in the selection button of the parent (calling) dialog.

Rename will rename the highlighted database record however all nodes referencing the existing database record will have an undefined reference and will generate an error on solving if not individually updated.

Delete will delete the highlighted database record and all nodes referencing the existing database record will have an undefined reference and will generate an error on solving.

Duplicate will create a copy of the highlighted database record with the existing name plus a .1, .2 etc suffix.

Add will create a new database record of the name shown in the edit field below the record name listbox.

Database Types

Several types of database records are available; these are displayed in the left-hand side scrollable list below this heading. As each database type is selected, the list of available records in that database is displayed in the list to the right. This list is created and maintained by the user. The list to which keystrokes, such as arrow keys, <page-up>, <page-down>, <home>, <end>, <insert>, <delete>, etc. will be directed is highlighted with a bounding rectangle. Either list can be made the active list by clicking in it.

The available database types are described briefly below. (R) denotes a database used by the Runoff layer, (S) denotes a database used by the Sanitary layer and (H) denotes a database used by the Hydraulics layer.

Database Type	Description
(R) Buildup and Washoff Data	Runoff pollutant buildup and washoff
(R) Erosion	Runoff subcatchment erosion
(R) Groundwater	Runoff subcatchment groundwater
(R) Infiltration	Runoff subcatchment infiltration
(R) Initial Loads	Runoff pollutant initial loads/unit area
(R) Landuse	Runoff land uses
(R) Runoff Pollutants	Runoff pollutants
(R) Rainfall	Runoff subcatchment precipitation
(R) Snowmelt	Runoff subcatchment snowmelt
(R) RDII	Unit hydrograph parameters for Rainfall Derived Inflow/Infiltration.
(S) Pollutant	Sanitary pollutant data
(S) Sewer DWF	Sanitary dry weather flow generation
(S) Sewer Infiltration	Sanitary sewer infiltration
(S) Waste Stream Temperature	Sanitary treatment plant temperatures
(SH) Temporal Variation	DWF hourly and daily temporal pattern variation
(H) Pump Rating Curves	Hydraulics Pump Rating Curves
(H) Pit Rating Curve	Hydraulics Inlet Rating Curves
(H) Hydraulic Brakes	Depth vs Flow Rating Curve
(H) Pavement Crossfalls	Pavement cross-section data
(H) HEC-22	HEC-12/HEC-22 Curb and Grate inlet parameters
(H) User Defined File Types	Hydraulics user-defined inflows
XP Tables	Field definitions of tabulated data and results from all layers
(R) Rational Formula	IDF and Runoff Coefficient parameters
(H) Natural Section Shape	User-defined cross-section profile
2D Landuses	Mannings Roughness, Rainfall Abstraction and 2D hydraulic Infiltration values for polygons in the 2D domain
2D Soil Type	Soil characterization and loss input
LID/WSUD	Low Impact Development/Water Sensitive Urban Design input
User Hazard Classifications	2D Hazard classifications (i.e. Velocity X Depth)
User Hazard Values	Additional User input for Hazard Variables (i.e. debris factor, etc.)

Record Name

This scrollable list displays the available records from the current Database Type. This list is manipulated by the buttons on the right-hand side of the list. You can add, delete, rename, and duplicate records to this list using these buttons. This list can be navigated in the same way as the database type list, ie. arrow keys, <page-up>, <page-down>, etc.

The edit item immediately below the Record Name List contains the name of the currently highlighted database record. Edit this item before adding or renaming a database record. This name will be used when the database record is referenced from an Object or Job Control dialog.

Description

Description of the database record. This item may be any meaningful description of the current database record of the current database type. This field is for annotation, it is not used by the model.

Duplicate Record

Hit this button to duplicate the highlighted database record. This facility has not yet been implemented.

Rename Record

Hit this button to rename the currently highlighted database record with the name entered. The command is executed when OK is hit or another database type is selected.

Edit Record

Hit this button to edit the data for the currently highlighted database record. This button may sometimes be inactive (greyed out), which indicates that, in the current context, editing of the currently highlighted database type is not available. The following table indicates the conditions required to make editing available for each database type.

Database Type Conditions Required to make Database Editable

(R) **Buildup/Washoff.** Runoff 'Water Quality' in Job Control is ON

(R) **Erosion.** Runoff 'Water Quality' in Job Control is ON and 'Erosion' under 'Water Quality' is ON

(R) **Groundwater.** None required

(R) **Infiltration.** None required

(R) **Initial Loads.** Runoff 'Water Quality' in Job Control is ON

(R) **Landuse.** Runoff 'Water Quality' in Job Control is ON

(R) **Pollutant.** Runoff 'Water Quality' in Job Control is ON

(R) **Rainfall.** None required

(R) **Snow Melt.** Runoff 'Snow Melt' in Job Control is ON

(S) **Pollutant.** Sanitary 'Pollutant List' in Job Control is ON

(S) **Sewer DWF.** Sanitary 'Pollutant List' in Job Control is ON and Sanitary 'Dry Weather Flow' in Job Control is ON

(S) **Sewer Infiltration.** Sanitary 'Pollutant List' in Job Control is ON and Sanitary 'Sewer Infiltration' in Job Control is ON

(S) **Waste Stream Temperature.** Sanitary 'Pollutant List' in Job Control is ON

(SH) **Temporal Variation.** None Required

(H) **Pump Rating Curve.** None Required

(H) **Pit Rating Curve.** None Required

(H) **Hydraulic Brakes.** None Required

(H) **Pavement Crossfalls.** None Required

(H) **HEC-22.** None Required

(H) **User Defined File Types.** None Required

XP Tables. None Required

(R) **Rational Formula.** None Required

(H) **Natural Section Shape.** None Required

Roughness Categories. 2D model invoked

Delete Record

Hit this button to delete the currently highlighted database record. The action is performed when OK is hit or another database type is selected.