

User Configurable Supply Name Formats

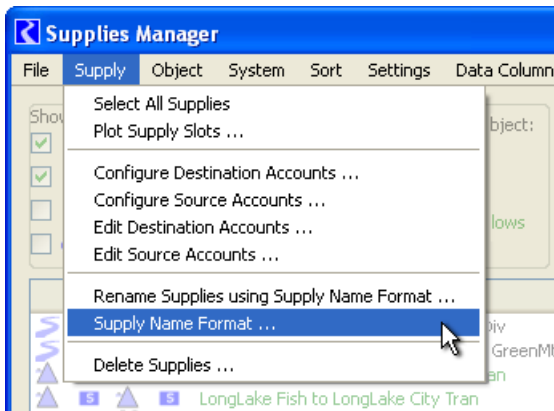
in RiverWare 5.3

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RiverWare users can now define the composition of names for newly created supplies, and can apply that specification to existing supplies.

1.0 Supply Name Format dialog

A RiverWare model maintains a single instance of a “Supply Name Format” specification. This is editable in the new Supply Name Format dialog -- accessible from the Supply Manager’s “Supply” menu:

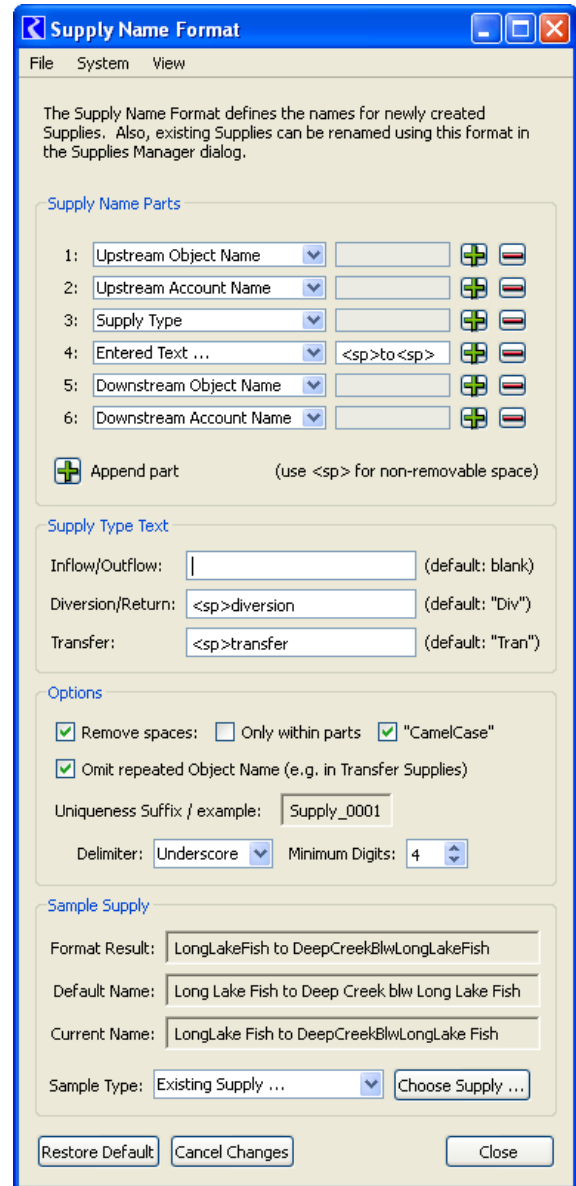


Changes made in the Supply Name Format dialog are applied immediately, but can be canceled (reverted to the settings which were active when the dialog was shown) by clicking the “**Cancel Changes**” button.

The user can also restore RiverWare Default settings by clicking the “**Restore Default**” button.

Those two buttons are independently disabled if the edited settings already match these operations’ respective settings. The user can effectively toggle between the default settings and the current settings (those which were active when the dialog is shown) by clicking back and forth between the “Restore Defaults” and “Cancel Changes” buttons -- assuming that those settings are different.

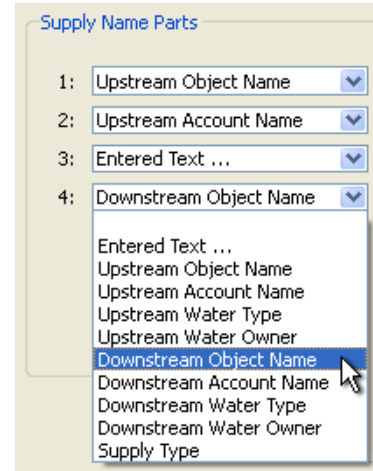
The “**Close**” button closes the Supply Name Format dialog.



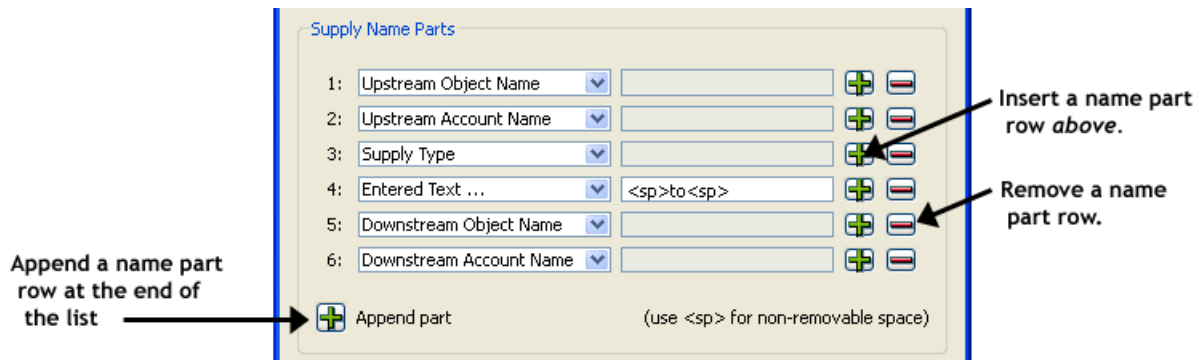
2.0 Supply Name Part sequence

In the new Supply Name Format dialog, the user defines a sequence of “Supply Name Parts” made up of the following entities:

- Upstream Object Name
- Upstream Account Name
- Upstream Account Water Type
- Upstream Account Water Owner
- Downstream Object Name
- Downstream Account Name
- Downstream Account Water Type
- Downstream Account Water Owner
- Supply Type Text (configurable)
- Any entered text having valid supply name characters (e.g. “to”)

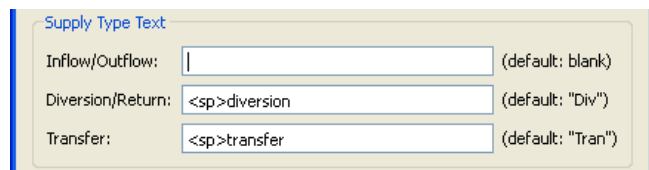


The user can insert, append and remove Supply Name Parts (rows) using the Plus and Minus icon buttons. Up to 12 parts can be defined:



The user can provide Supply Type Text strings for each of the three types of supplies:

- Inflow/Outflow
- Diversion/Return
- Transfer



Allowed characters in the “Entered Text” and “Supply Type Text” fields are letters (upper and lower case), digits, spaces and underscore characters. Also, a “non-removable space” tag (“<sp>”) can be entered to specify spaces which are not to be removed by the space removal and “CamelCasing” features (with some exceptions). (Other ‘<’ and ‘>’ characters are silently removed from the final computed name).

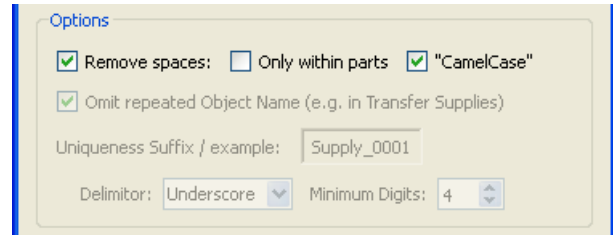
3.0 Supply Name Generation Options

3.1 Part Assembly options: Space Removal and Camel Casing

The sequence of Supply Name Parts is assembled into a single string, with the parts initially separated by spaces. Multiple contiguous spaces are condensed into single spaces, and spaces are removed from the beginning and end.

The user can optionally specify that spaces be removed, either only *within* the individual parts or also in between the separate parts.

If “CamelCasing” is enabled, wherever a space is removed, if the subsequent character is a lower-case letter, that letter is changed to upper-case.



The translation of non-removable space tags (“<sp>”) occurs *after* the application of optional space removal and camel casing. However, all *contiguous* spaces (including “<sp>” tags) are condensed into a single space, and spaces are removed from the beginning and end of the generated name.

In the five examples below, non-removable spaces around the “to” text part are preserved (i.e. when that text part is specified as “<sp>to<sp>”). Also, the space tag preceding “to” prevents that word from being “camel cased”. Otherwise, “to” would have been changed to “To” in the cases where camel casing is enabled. In the examples below, the effect of camel casing is illustrated with the treatment of “abv” (an abbreviation for “above”).

Default Name:

Upstream Object Downstream Object

Upstream Account Downstream Account

Format Result: Remove spaces: Only within parts "CamelCase"

Format Result: Remove spaces: Only within parts "CamelCase"

Format Result: Remove spaces: Only within parts "CamelCase"

Format Result: Remove spaces: Only within parts "CamelCase"

Format Result: Remove spaces: Only within parts "CamelCase"

3.2 Option: Omit Repeated Object Name (e.g. in Transfer Supplies)

In RiverWare, Transfer Supplies represent the reassignment of water from one account on a simulation object to another account on the same object. The “Upstream Object” and the “Downstream Object” are the same. The default Supply naming convention results in that object being included twice.

The user has the option of omitting repeated object names in generated supply names.

The screenshot shows a configuration dialog with two sections. The 'Options' section has three checked checkboxes: 'Remove spaces', 'Only within parts', and '"CamelCase"'. The 'Omit repeated Object Name (e.g. in Transfer Supplies)' checkbox is also checked. Below these are input fields for 'Uniqueness Suffix / example:' containing 'Supply 001', a 'Delimiter:' dropdown set to 'Space', and a 'Minimum Digits:' spinner set to 3. The 'Sample Supply' section has three text boxes: 'Format Result:' with 'LongLake Fish to BigBear Tran', 'Default Name:' with 'Long Lake Fish to Long Lake Big Bear Tran', and 'Current Name:' with 'LongLake Fish to LongLake BigBear Tran'.

3.3 Option: Supply Name Uniqueness Suffix

All Supply names in a RiverWare model must be unique. It's possible that the Supply Name Format will not generate unique names for certain sets of supplies. Only in such cases, a numeric suffix is appended to the generated supply name.

The numeric “uniqueness” suffix generated for supplies, as needed, can be configured by the user in the following ways.

- The suffix can optionally start with a space or underscore “delimiter”.
- The number field can have a (basically-) fixed number of digits, padded with leading zeros. This is specified as a *minimum* number of digits -- more digits will be used for any particular supply if the indicated digit count isn't sufficient.

The first screenshot shows the 'Options' dialog with 'Remove spaces', 'Only within parts', and '"CamelCase"' unchecked. 'Omit repeated Object Name' is also unchecked. The 'Uniqueness Suffix / example:' field contains 'Supply1', the 'Delimiter:' dropdown is set to 'None', and the 'Minimum Digits:' spinner is set to 1. The second screenshot shows 'Uniqueness Suffix / example:' as 'Supply 001', 'Delimiter:' as 'Space', and 'Minimum Digits:' as 3. The third screenshot shows 'Uniqueness Suffix / example:' as 'Supply_00001', 'Delimiter:' as 'Underscore', and 'Minimum Digits:' as 5.

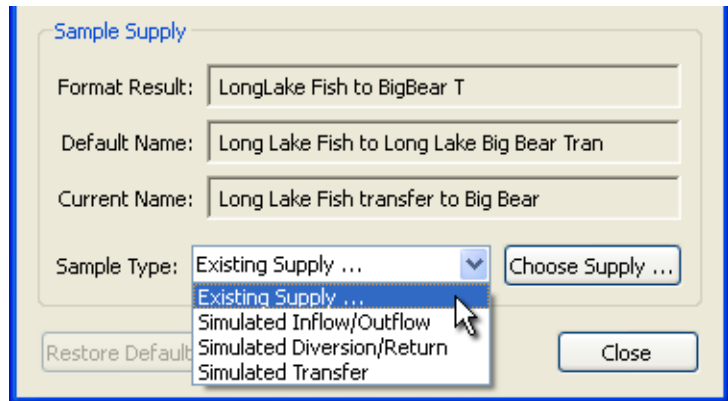
The dialog dynamically illustrates the effect of these two settings in the “example” field (see above). The effect is also illustrated within the Sample Supply box “Format Result” field, when needed for the application of the format to the chosen sample supply (see below). Generated supply names are made unique not only with respect to all existing supplies, but also with respect to all other top-level objects, including Simulation Objects and Exchanges.

4.0 Supply Sample Box

This Supply Name Format dialog shows the result of the application of the current format to a single “sample” supply chosen by the user. The sample supply can be an actual existing supply OR one of three “simulated” (fake) supplies -- one for each of the three Supply Types.

The Sample Supply box shows three versions of the Supply name:

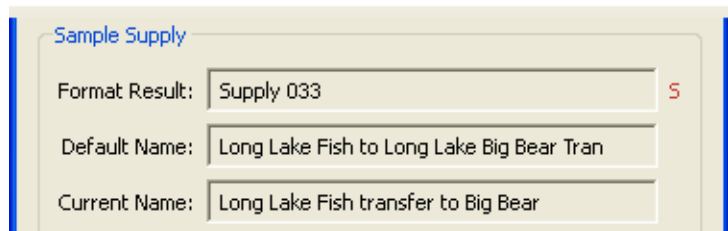
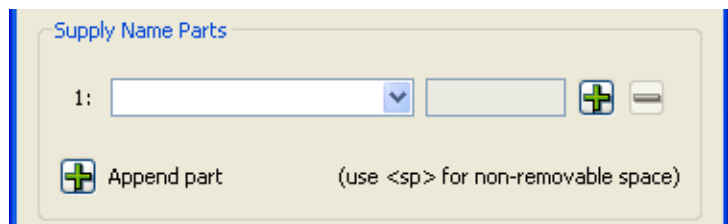
- **Format Result:** the name of the sample supply as computed using the current format.
- **Default Name:** the name of the sample supply, as computed using the Default Supply Name Format.
- **Current Name:** the current name of the sample supply (shown only when an actual *existing* supply is used as the sample).



Note that this dialog does *not* currently support renaming the sample supply using the configured format. Supply renaming can be done in the Supply Manager -- (described in a subsequent section).

The Format Result field will show a “uniqueness suffix” if that is required for the particular sample supply. (In the case of the “simulated” samples, a uniqueness suffix is shown if the Supply Name Part list is empty or all blank).

When a uniqueness suffix is applied to the generated name, a RED “S” character is shown to the right of the field.



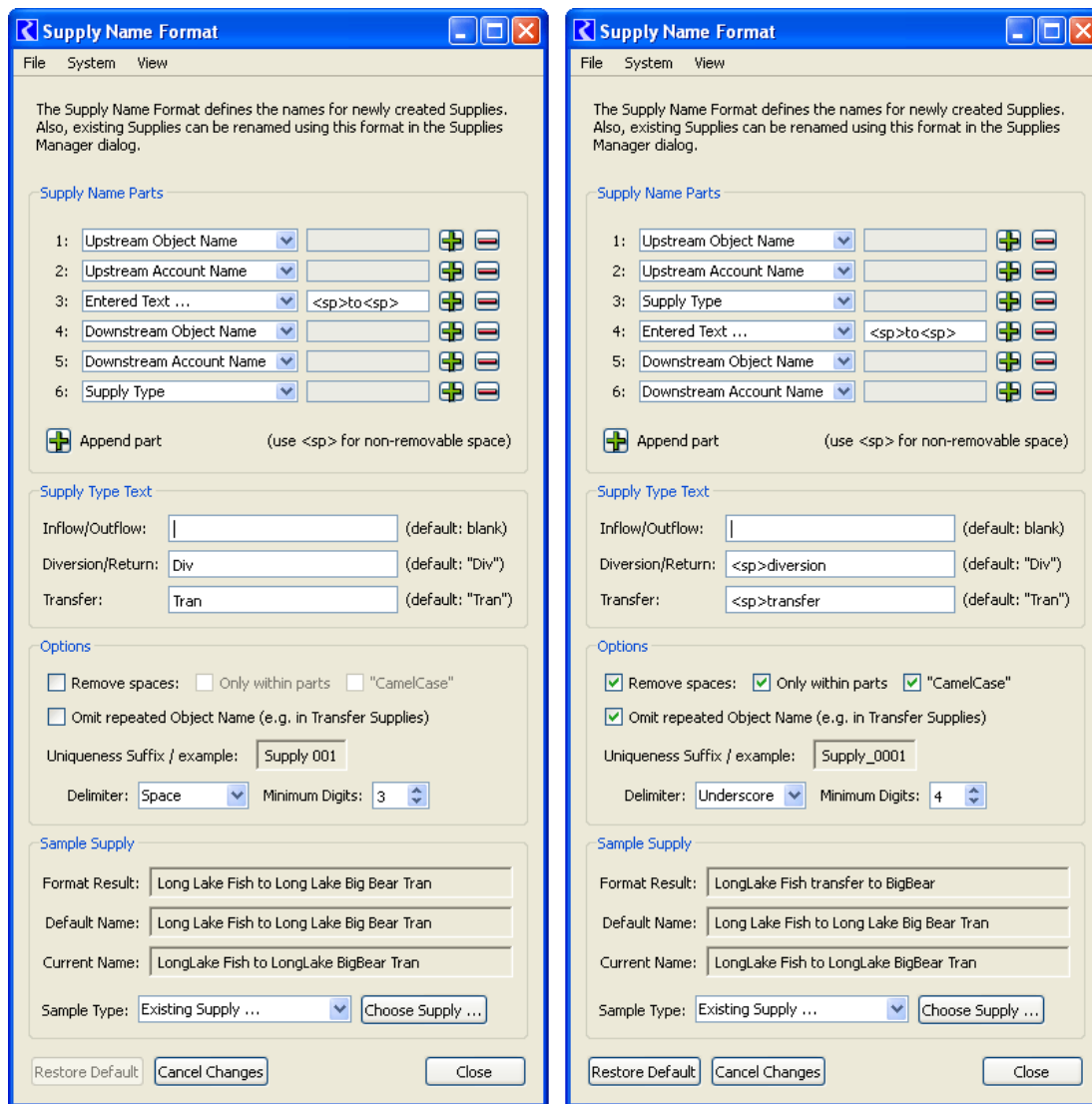
5.0 Default Supply Name Format

The default Supply Name Format is illustrated in the image below on the left. It contains these Supply Name Parts and does not perform space removal:

- <Upstream Object> <Upstream Account> “to” <Downstream Object> <Downstream Account> <Type>

where <Type> is one of the following:

- (blank) -- for Inflow/Outflow Supplies,
- “Div” -- for Diversion/Return Supplies,
- “Tran” -- for Transfer Supplies.

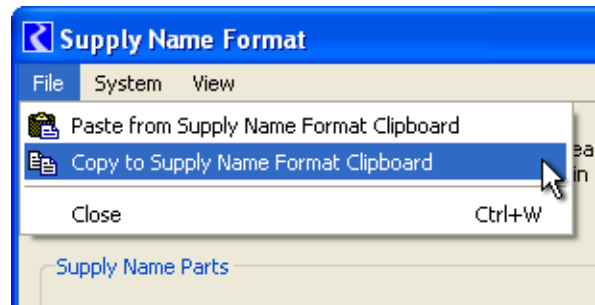


6.0 Supply Name Format Clipboard

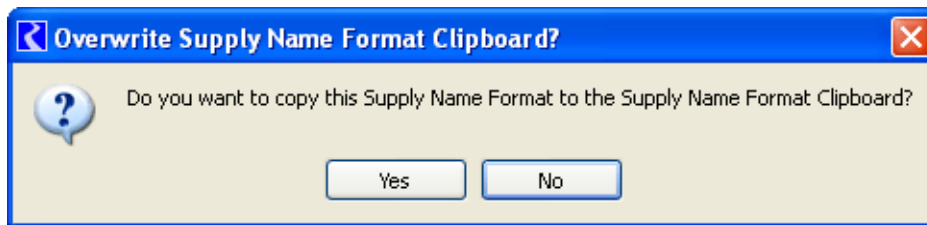
A single instance of a Supply Name Format can be saved in a special “clipboard”. The clipboard value persists between RiverWare sessions, and can be used to copy a Supply Name Format from one RiverWare model to another.

The clipboard functions are under the File menu:

- Paste from Supply Name Format Clipboard
- Copy to Supply Name Format Clipboard

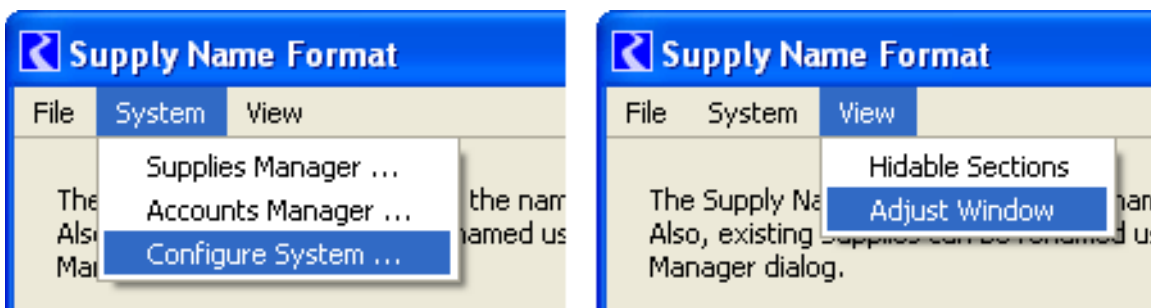


The Save operation is confirmed with the following dialog:



7.0 Other Supply Name Format dialog Menus:

The Supply Name Format dialog provides operations to show other related RiverWare Accounting System dialogs, and to adjust the size of the dialog box.

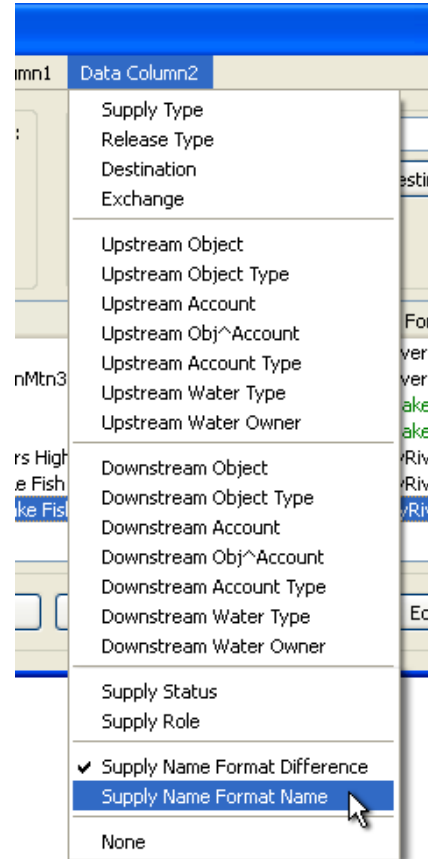
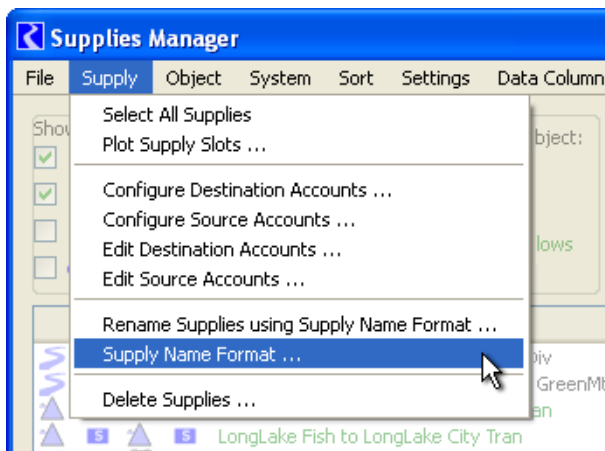


The next section describes support for Supply Name Formats in the Supply Manager.

8.0 Supply Manager: Support for Supply Name Formats

The Supply Manager dialog was enhanced with these features:

- Ability to show the names computed for each of the existing supplies using the model's current Supply Name Format -- optionally with an indication that the computed name is *different* from the supply's current name -- see example below.
- Ability to rename the *selected* existing supplies using the currently defined Supply Name Format.
- An operation to show the Supply Name Format dialog:



A confirmation dialog box is shown when the user selects the “Rename Supplies using Supply Name Format ...” operation.

