

Variable Selection Options

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Overview

This Full Variable/Parameter Selection display option allows users to narrow down the different parameters and variables that are available for display in the Type Name Box. Some users will want to narrow down the amount of variables/parameters for reasons of simplicity. Other users will want to narrow down the amount of variables/parameters displayed for practical reasons. For example, choosing the Historic Plus Forecast option allows users to see historic data plus forecast displayed on the same graph.

- **Explain Names:** Selecting this option opens a new window that briefly explains the difference between parameters and variables located in the Type Name selection box.
- **Show Variables:** Selecting this option displays only variables in the Type Name selection box.
- **Show Variables and Parameters:** Selecting this option displays both variables and parameters in the Type Name selection box.
- **Show Variable and Display Lists:** Selecting this option displays variables and display lists in the Type Name selection box. Variable lists and display lists are created to be re-used for display purposes as a set either in self-managed display or in flex packaged display. They can be used with any country/region, group or GList. Variable lists have

variables and parameters saved for re-use. Display lists have variables, parameters plus countries/regions and/or groups for re-use.

- **Show Historic Plus Forecast:** Selecting this option displays historic data and forecasts in the Type Name selection box. In many, but by no means all cases, variables in IFs have historic analogs in the IFs database. For instance, the variable POP in IFs represents population by country/region or group does the variable population in the data set. This sub menu option displays all IFs variables with such analogs. When it is active and you select a variable for display, a table or graph will show values from 1960 through 1998 from historic data and from 2000 forward from the IFs forecast.
- **Create Variable List from Selection Status Box :** This option allows users to create a Variable List that can then be re-used for display purposes for various countries/regions or groups.
- **Create Display List from Selection Status :** This option allows users to create lists of a parameter or variable for a selection of countries/regions and/or groups. This feature can then be displayed in Flex Package Display.
- **Create Glist from Selection Status Box :** This feature allows users to create lists of countries/regions and groups for display. Glists are combinations of country/regions and groups that are available for display.
- **Create Index from Selection Status Box :** This feature allows users to create indexes. The indexes created here are accessible in both the Full Variable/Parameter Selection box and in Flex Packaged Display.
- **Create Historic Analog with Forecast :** *This feature allows users to create a formula of variables in the historic data set to match representation of a variable in IFs forecasts.*
- **Create Differentiation in Formulas for History and Forecast :** *This feature allows users to access and modify formulas of variables between the historic data of IFs and the forecasted data of IFs.*
- **Edit Variable List :** This feature allows the user to edit a variable or parameter currently listed in Flex Packaged Display.
- **Edit Display List :** This feature allows the user to edit a variable or parameter currently listed in Packaged Display.
- **Edit GList :** A user can edit the groups and regions that comprise a given glist from this feature. See country/region or group for more information on how IFs uses these terms.
- **'Define Report Category' :** This option allows users to view exactly to which category each parameter and variable belong. It is also possible to change this categorization by selecting a parameter or variable from a list and then re-typing the category name.
- **Append to Variable List from Selection Status Box :** This feature is a quick way to add a selected variable/parameter to a variable list. The use of this feature is similar to Edit Variable Lists.
- **Append to Display List from Selection Status Box :** This feature is a quick way to add a selected variable/parameter to a variable list. The use of this feature is similar to Edit Display Lists.

Create Variable List

As the title of this section implies, this feature of IFs allows users to create lists of variables that are not country/region, group or Glist specific that can then be displayed in Flex-Packaged Display. Selecting this option brings up a new window. From this window you can do the following:

List Name: Single-click on any list in order to place it in the Select a List box located at the top of the Create Variable List window. After your list appears in the Select a List box, you can change the display name, add or remove display variables or change the category under which your variable list will be grouped. If you would like to delete a list, simply double-click on the list.

Update List Name: After you have selected a variable list, it will appear in the upper-most box. Change the name by highlighting the entire name in this box and type in the new name you would like. After you have finished, click on the Update List Name button to change the name.

Variable Names: Select a variable name and it will be placed in the box titled Selected Variable Names. If you have multiple variables displayed in the Selected Variable Names box, it is possible to change their ordering by moving them up or down in the list or deleting them by double-clicking on their name.

Update Category or Legend Name: After you have made any change to a variable list that you would like to save, you must click Update Category and Display Title.

Create Display List

This feature of IFs allows users to create lists of selected variables for display purposes in Packaged Display. These display lists are country/region, group or Glist specific. Selecting this option will bring up a new window asking for the name of the list you would like to create. Type in a name and click OK.

List Name: Select a List Name to alter. Selecting a list will display the list name in the Select a List box located at the top of the screen as well as detailing the various variables to be displayed and for what geographic region. Also, the Category and Legend Name assigned to the display list you have selected are displayed at the bottom of the screen.

Update List Name: When a list name is in the uppermost box, you can highlight the name, type in a new name and click on Update List Name. You must select Update List Name in order to save changes you made.

Selected Variable Names: By double-clicking on any of the variable names in the list, you can delete them. You can also alter the order in which they are saved by highlighting a variable and then clicking on Move Up or Move Down.

Change Category and Legend Name: After you have selected a list, you can change the Category and Legend Name. Simply highlight the name, type in a new name and then click on Update Category and Display Title.

Update Category and Display Title: After you have made any change to a display list that

you would like to save, you must click Update Category and Display Title.

Create GList

This option can be found by accessing Full Variable/Parameter Self Managed display from the Display option located on the main menu of IFs and then selecting Variable Selection Options.

Glists are one way users are able to organize data into geographic regions. Currently, there are three different geographic units for display and organization: country/regions, groups and Glists. In order to create a Glist, a user must first select one variable/parameter for a select cohort of countries/regions or groups. Once these have been placed into the Selection Status Box, click on Variable Selection Options and then on Create Glist.

A window will appear that asks you to name your Glist. Once this is completed, a new window appears. It allows you to change the name of the Glist at the top of the screen, organize and delete Glists that are stored on your computer and more completely create your list. For example, if you only choose two groups with which to create your list, this window will allow you to add countries/regions or more groups to your Glist.

After a Glist has been created, click Update Name and then Continue. The Glist has now been created, but, in order to make the change permanent, the IFs.MDB file must be manually copied to the Data directory after exiting IFs.

Create Index

The IFs program has several indexes which the user may find helpful in conducting research. However, the program also has the capacity to allow the user to generate his own indexes, should the need arise. The indexes created here are accessible in both the Full Variable/Parameter Selection box and in Flex Packaged Display.

The country selected for this example is Venezuela, with the index HDI2. Notice that the index is composed of three variables: GDPPCP, LIT, and LIFEXP. To delete a given variable, simply double-click on one. To add more variables, go to Equation Options and select Add More Variables. A prompt will appear to enter the list name, and after entering in a name, the user is able to select variables to add to the index. Make sure to select the same country for which the index is being created. Select TFR, or Total Fertility Rate. Then, click on Back to Index Creation.

The scaling factors represent the range of the values contained within the variables. The minimum values are in the first row, while the maximum values are in the second. While the IFs program automatically enters in the minimum and maximum values, the user is able to manually change the minimum and maximum values, should the need arise. The user can change the values either by clicking on a value, or by selecting Scaling, located in the bar at the top of the screen. By selecting Scaling, the user is also able to adjust the time horizon for the values: the entire time horizon, the base year, or Other, which allows the user to select between 2 and 95 years. Note that changing the minimum and maximum values will result in corresponding changes in the equation near the bottom of the screen.

Adjusting the Weight Factors will give one or more variables greater weight in relation to

the other values. Type in the desired weight, and click Update Eq. The adjusted weight will appear in the equation.

Selecting Transformation Rules allows the user to select between logarithms, linear, base 10, and manually-entered rules for transformation.

Valence refers to whether a higher number or lower number is preferable in the index. The “+” sign denotes a higher number as preferable, while a “-” denotes a lower number as preferable.

After entering in the name for the new index, go to Save Options to either save and continue using the model, or to just save.

Create Historic Analog with Forecast

This feature of IFs allows users to create a formula of variables in the historic data set to match representation of a variable in IFs forecasts. For example, if you were interested in creating a display that showed both historic and forecasted information for the amount of foreign aid given to a select geographic region, this feature of IFs will allow you to successfully accomplish your task.

Selecting this option will bring up a new window. From this window you can accomplish the following:

Select Variable: The first box, titled the “Select Variable” box allows you to begin to construct your display formula by selecting a historic variable used in IFs. For the example that was referred to in the beginning narrative of this help topic, we would need to select the AID variable.

For other tasks, click on any variable/parameter in order to bring it up into the box located at the top of the variable/parameter selection list. Additionally, you can put your cursor in the box and type the first few letters of the variable/parameter you are looking for in order to search more quickly.

Create Formula: After selecting a historic variable, a new option becomes available at the top of this window. It is now possible to create the formula. Selecting this option will bring up a new window that allows you to create your own formula for comparing variables/parameters. From this window you can accomplish the following:

Type your Formula: In the box, type in a formula you would like IFs to calculate. For the above example, we would like to take the historic foreign aid variable and tie it to the forecasted variable for foreign aid. Other formulas may be more complex. The formula to use is simple: use any standard character to represent your variable, in this case, use the letter a. After typing in this formula, hit Enter or click on Select Vars. This will bring up a new window. From this window, you can accomplish the following:

Formula Name: Type in the formula name you would like.

Dimension Name: Type in the formula name you would like.

Units Name: Type in the Units Name you would like.

After you have typed in the names you prefer, click OK. This will bring you back to the Type

your Formula window, also titled the Computations menu.

The variable(s) you selected for your formula is (are) displayed in the lower half of the Computations window. Click on Select Vars. This will take you to another window where you can select a variable. In the case of the example above, we want to select the same variable forecasted into the future. The forecasted variable is labeled AidRec. Select this variable and you will be prompted to specify a geographic representation. For this example, choose India. After you have selected the variables you want, click Exit: You will then return to the Computations menu. The variable/parameter you have chosen is displayed in the lower half of this window. Click Exit. You will return to the Create Historic Analog option with Formula.

Save Formula in Analog Option: This feature becomes available after you have created a formula. Click on this option to save your formula. This will bring up a warning that, if you want to firmly save changes, you will have to manually copy IFsVar.MDB from the local driver to the Data directory after exiting IFs. After you have saved your formula, the AID - Aid (foreign), net - Billion \$ variable is labeled with ***** has FORMULA *****.

Continue: Click here in order to go back to the previous menu. After you have created a formula and saved it, it is now possible to display. You will return to the Full Variable/Parameter Self Managed Display screen where you can select your variable, choose the same geographic location and then click Display. Choose to display the Indian aid received example as a line graph. You will see a graph that displays India's aid received historically and it forecasted into the future.

Create Differentiation in Formulas for History and Forecast

This feature of IFs allows users to create formulas of variables that allow transferability between variables that are either historic and forecasted or variables that are both forecasted. This feature of IFs is similar to Create Historic Analog with Forecast, but offers users more flexibility by allowing them to work with two forecast variables. Select this option and a new window will appear asking you to choose between Computation History or Computation Forecast.

Computation History: Selecting this will present a new window that will ask you to input a formula. Your formula can be as simple as one letter, as can be seen by reading the Create Historic Analog with Forecast help topic.

Type your Formula: In the box, type in a formula you would like IFs to calculate. After typing in this formula, click Enter. This will bring up a new window. From this window, you can accomplish the following:

Formula Name: Type in the formula name you would like.

Name: Type in the formula name you would like.

Units Name: Type in the Units Name you would like.

After you have typed in the names you prefer, click Enter: This will bring you back to the Type your Formula window.

The variables you used in your formula are now displayed at the bottom of the screen in the left column: Now, click on Select Vars. You will return to the Full Variable/Parameter Selection window where you will select a variable.

After you have selected the variables you want, click Exit: You will then return to the Type your Formula menu. The variable/parameter you have chosen to incorporate a formula into will be labeled.

Computation Forecast: Selecting this will present a new window that will ask you to input a formula. From here you can accomplish the following:

Type your Formula: In the box, type in a formula you would like IFs to calculate. After typing in this formula, click Enter. This will bring up a new window. From this window, you can accomplish the following:

Formula Name: Type in the formula name you would like.

Dimension Name: Type in the formula name you would like.

Units Name: Type in the Units Name you would like.

After you have typed in the names you prefer, click Enter: This will bring you back to the Type your Formula window.

The variables you used in your formula are now displayed at the bottom of the screen in the left column: Now, click on Select Vars. You will return to the Full Variable/Parameter Selection window where you will select a variable.

After you have selected the variables you want, click Exit: You will then return to the Type your Formula menu. The variable/parameter you have chosen to incorporate a formula into will be labeled.

Edit Variable List

The user can edit the name, composition, and category title of variable lists that appear in Flex Packaged Display.

The first step is to select a variable list to edit. For example, scroll down and select the variable "Agricultural Production, History plus Forecast" from the list of names. Make sure not to double-click on the name, as the program will delete the variable. After clicking on Agricultural Production, the full name should appear in the small box at the top of the screen. Replace the words, "History plus Forecast" with "Test." Click on the Update List Name button. Now, upon opening the Flex Packaged Display, the renamed variable list should be included in the list of variables on the left side of the screen. Return to Edit Variable List.

The two boxes located beneath the List Name box, labeled Variable Names and Selected Variable Names, allow the user to add or delete the variables that compose the variable list. The Variable Names box is a list of variables from which the user can select, while the box on the right shows the names of the variables included in the variable list. To add a variable, scroll through the variable names and double click on AGDEM-Agricultural demand. The variable should have appeared at the bottom of the list in the Selected Variable Names box.

The user can adjust the location of the selected variables in the list by clicking on the Move Up or Move Down buttons. To remove the variable AGDEM from the Selected Variable Names box, simply double-click on the variable.

The Selected Variable Names box shows the particular variables that make up a variable list. With Agricultural Production selected, the variable AGP-Agricultural Production should be listed in the Selected Variable Names box. Agricultural Production is thus composed of a single variable. However, some variable lists include multiple variables. For instance, scroll down in the variable box and select the list named SOFI Forecast Variables. Instead of a single variable, approximately 20 variables should be displayed in the Selected Variable Names box.

The user can change the category to which a variable list belongs. Simply delete the current name, and type in the desired category. To use an example, select Agricultural Production again. The category for this variable list is Agriculture, of course. Delete the current category name and type in "Test". Hit the Update Category and Display Title button. Now, open the Flex Packaged Display, and under the Category column, scroll down. The category "Test" should be located near the bottom of the column. To change the category name back to the original, simply repeat the steps used to change the name.

Edit Display List

This feature is used to edit the types of Displayed available in Packaged Display.

First select a display list to edit. For instance, select "Democracy Level of Large Developing Regions" from the List Names box. Make sure not to double-click on the name, as the program will delete the display list. Clicking on the name should cause it to appear in the small box located at the top of the screen. Add the word "Test" to the end of the name. Click on the Update List Name button. Now, upon opening the Packaged Display, the renamed display list should be included in the list of display types located on the left side of the screen. Return to Edit Display List.

The next box down from the top of the screen is titled Selected Variable Names. This box shows the particular variables that make up a display list. With "Democracy Level of Large Developing Regions" selected, the four variables should be listed in the Selected Variable Names box. This display list is thus composed of four variables. Experiment with selecting other display lists to see of which variables they are composed. Simply double-click on a variable to delete if from a display list.

The user can change the category to which a display list belongs. Simply delete the current category name, and type in the desired category. The category name for the "Democracy Level of Large Developing Regions" display list is Governance. Delete the current category name and type in "Test". Hit the Update Category and Display Title button. Now, open the Packaged Display, and scroll down in the Category column. The category "Test" should be located near the bottom of the column. To change the category name back to the original, simply repeat the steps used to change the name.

Edit GList

This feature allows users to edit the lists of groups included in the Flex Packaged Display, Self-Managed Display, Specialized Display, and Analyze Across Countries.

First, select a Glist to edit. For instance, select "Africa and Subregions" from the second box from the top. Make sure not to double-click on the name, as the program will delete that Glist. Clicking on the name should cause it to appear in the small box located at the top of the screen. Add the word "Test" to the end of the name. Click on the Update Name button. Now, upon opening the Flex Packaged Display, and then, under Grouping Options, selecting "Using Glists", the renamed Glist should be included in the list of display types located on the left side of the screen. Return to Edit Display List, and simply reverse the steps to change the Glist to its original name

With the Glist "Africa and Subregions" still selected, take a look at the two boxes at the bottom of the screen. The box on the left shows the regions and/or groups of which the selected Glist is composed. The box on the right shows the countries, regions, and groups which the user can add to a Glist. The toggle switch located in the middle of the screen allow the user to display countries or regions/groups in the box on the bottom-right of the screen. Click on the "Groups" option on the toggle switch. Next, double-click on "ACC High Income", from the list of groups in the box in the bottom-right section of the screen. That group should now appear in the list in the bottom-left side of the screen. To remove it from that list, simply double-click on it.

Append to Variable List

To use this feature, simply select the variable/parameter to add. Under Variable Selection Options, select Append to Variable List from Status Selection Box. Next, select the List to add the variable/parameter to, and then click Continue. The next screen that opens is Create Variable List Names. Notice that the new variable/parameter is now included in the Selected Variable Names box. Click Exit to return to Full Variable/Parameter Selection.

Append to Display List

To use this feature, simply select the variable/parameter to add. Under Variable Selection Options, select Append to Display List from Status Selection Box. Next, select the Display List to add the variable/parameter to, and then click Continue. The next screen that opens is Create Variable List Names. Notice that the new variable/parameter is now included in the Selected Variable Names box. Click Exit to return to Full Variable/Parameter Selection.

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