

## Rules Module™

This manual describes the use of the Rules Module™ for Adobe® InDesign® with the AccurioPro® VDP software from Konica Minolta. The Rules Module, a standard component of AccurioPro VDP, provides features to apply powerful, conditional processing (if-then-else statements) while merging.

Topics Covered in this Manual:

- ✓ Overview and Installation
- ✓ Terminology
- ✓ Rule Types (Link, Box, Page)
- ✓ Statements, Criteria, and Actions
- ✓ Testing and Debugging Rules
- ✓ Technical Support

# Overview

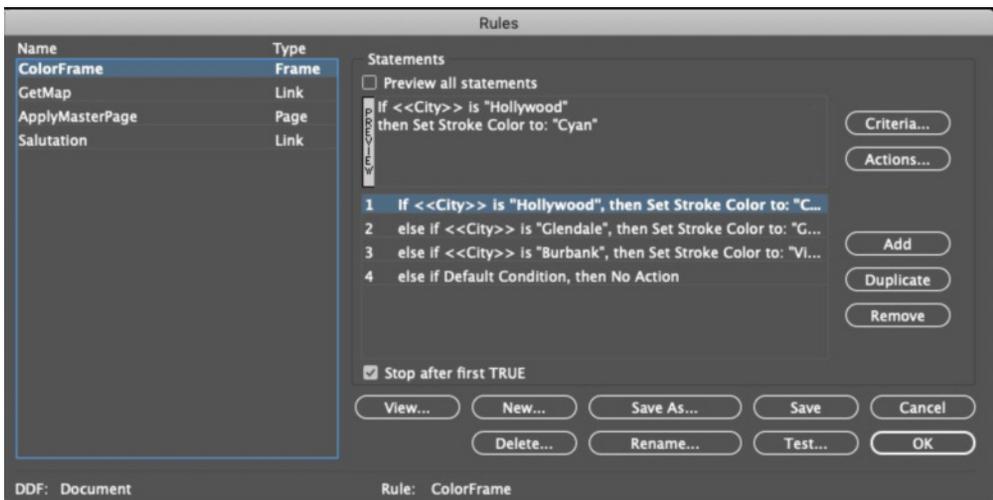
## About the Rules Module

The Rules Module provides features to apply powerful, conditional processing (if-then-else statements) while merging. With an easy-to-use interface, the Rules Module provides enough power to construct even the most complicated, “nested” statements. In addition, the product supports an extensive list of “qualifiers”, including our unique “List Qualifiers” which greatly simplify constructing a statement’s criteria.

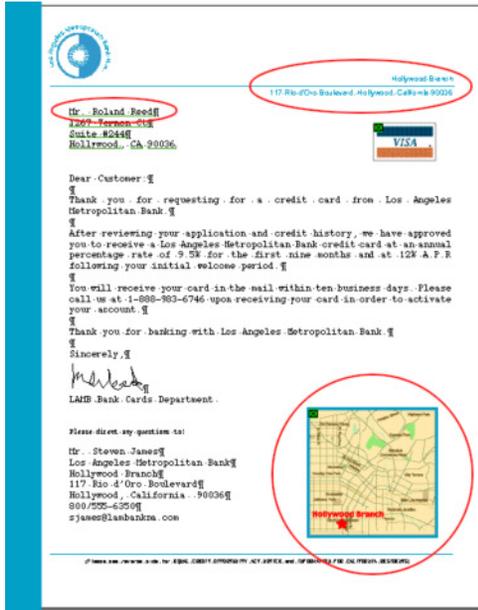
With the Rules Module, AccurioPro VDP can apply rules to Variable Links, and a Premium edition of AccurioPro VDP can also apply rules to any frame and page, when merging an InDesign document. This greatly extends your control over the manner in which data will be merged into your documents. For example, you can use a Link Rule to modify the data or paragraph/character style for a Variable Text Link on a conditional basis. A Frame Rule can delete frames and modify frame attributes, such as the color of the background or frame, for any frame in the document. A Page Rule can apply a master page or omit a page from merged print output. Additionally, if your AccurioPro VDP software installation includes the Scripting Module, then a rule can be set to launch external scripts, which are useful for constructing custom rule actions.

Below is an example of the **Rules** window where you can set up and test rules for your document, followed by an example of merged results for two different records in a document that is using Rules.

### Example of Rules window where you can set up and test rules



**Example of merged results for two different records using rules processing**



In the above examples, a Page Rule applied a Master Page, a Frame Rule modified the color of the stroke for the Map picture frame, a Link Rule selected a picture for the Map picture frame, and another Link Rule added an appropriate prefix to the customer name. For step-by-step instructions to set up and use the rules in the example above, see **Tutorial #1b** and **Tutorial #1c**, which are available in PDF format in AccurioPro VDP Documentation.

**About this Manual**

This manual presents detailed descriptions of the installation, features, and user interface of this software. Additionally, this manual was written for all versions of the software. Since the software operates the same regardless of the version, pictures from the Macintosh platform are used throughout the documentation. In the few cases where a particular window or functionality differs significantly from one version to another, specific pictures and settings are fully identified.

**Additional Documentation**

For a step-by-step example using some of the features described in this manual, see **Tutorial #1b** and **Tutorial #1c**, which are available in PDF format in AccurioPro VDP Documentation.

# Installation

## Standard Component

If you are already running AccurioPro VDP in Adobe® InDesign®, then the Rules Module is already installed as a standard component of AccurioPro VDP.

The Rules Module is a standard component of the AccurioPro VDP software package for InDesign. As such, this module is installed automatically when the AccurioPro VDP software is installed in InDesign. This module works only in conjunction with this software package.

## Required Modules

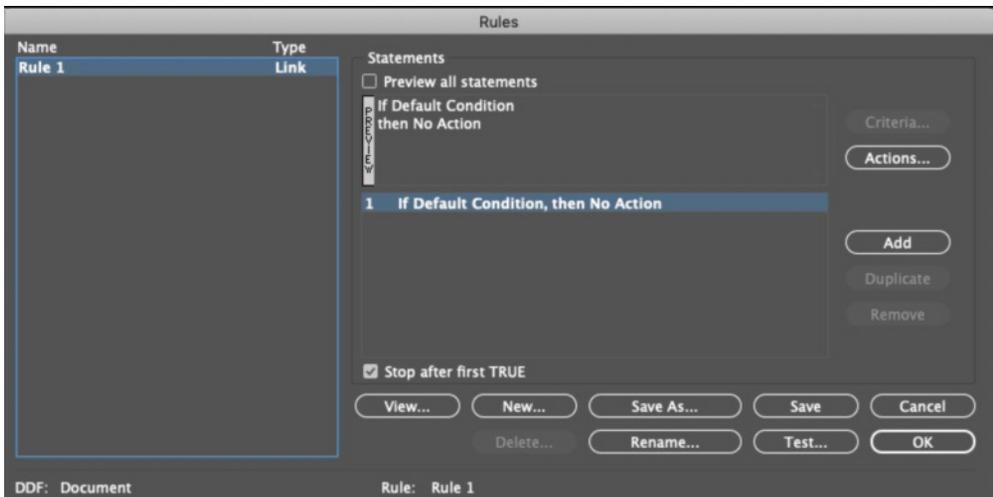
### Rules Module

(file name: MPS Rules Module)

This is the module that enables the Rules capabilities of AccurioPro VDP.

## Verify the Installation

To confirm successful installation of the Rules Module, you should be able to display the **Rules** window, shown in the picture below, by opening the **AccurioPro** menu and selecting **Setup** ⇒ **Rules**. If you have not yet set up any Rules for a document, then you will see one Rule named “Rule 1” in the list of Rules on the left side of the **Rules** window. Then, click **OK** to close this window before continuing with this manual.



## About Rules-Based Processing

“Rules-based processing” is defined as the ability to perform specific actions based upon the contents of one or more data fields. A simple example would be to add a salutation (Mr., Mrs., etc.) based on the contents of a different data field, such as gender (M, F). Such a rule might be expressed like this:

```
“If <<Gender>> contains “M”, then add salutation “Mr.”, else if <<Gender>> contains “F”, then add salutation “Mrs.”, else if...” etc.
```

A more complicated example would be to vary an entire page layout based upon the contents of a different data field, or to omit a document page when a certain condition is met, such as a specific page number. The Rules Module has been designed to handle all of these examples, from simple data modifications to complex page layout alterations.

## Terminology

The following terminology is used throughout this manual to describe the Rules Module.

### Expression

Defines a single Condition. An expression defines a single condition, such as [If <<Salutation>> contains “Mr.”], which can be evaluated to either true or false.

### Criteria

A set of one or more Expressions. Criteria contain one or more Expressions. The Expressions can be inclusive (and), exclusive (or), or any combination. For instance, [If <<City>> is “Chicago” and <<Zip Code>> is “60173”] is an example of an inclusive Criteria that contains two Expressions. Both of the Expressions must be true in order for the Criteria to be true. If either of these conditions are false, then the entire Criteria evaluates to false.

### Action

One or more events to be performed. An Action is a modification that will be made to a piece of data or to a document. Actions can apply to individual Variable Links, frames, or pages within a document.

### Statement

A Statement is a combination of Criteria and the associated Action that will be triggered if the Criteria is true. If the Criteria associated with a Statement evaluates to true, then the Actions associated with that Statement are performed.

For instance, the Statement [If <<Gender>> contains “M”, then Add Prefix: “Dear Mr.”] consists of a single-expression Criteria, and a single Action. In this example, if the field identified as Gender contains an “M”, then the Statement would be true. Otherwise, it would be false. If the Statement is true, then the Action is performed. In this case, the text “Dear Mr.” would be added as a prefix to the data that was currently being processed.

## Rule

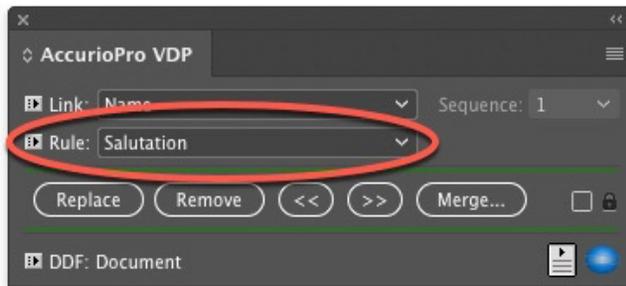
A set of one or more Statements that are Evaluated and Executed. If the Criteria associated with a Statement is “met” (i.e., the Statement's Criteria evaluates to true), then the associated Actions are performed (i.e., the Statement is executed). Rules are defined by the user and are specific to each Data Source Definition (DDF).

## Rule Types

The Rules Module provides three types of rules: Link, Frame, and Page. Each rule type supports a specific set of Actions, as described below.

### Link Rule

A Link Rule is a rule that may be “attached to” any Variable Link that is used in the document. A Link Rule is unique in that the Actions associated with Link Rules serve to modify data only—they do not modify frame or page attributes (those are handled by the other rule types). When you create a Link Rule, you will see the name of the rule in the **Rule** popup menu that appears on the **AccurioPro** panel, as shown below:



### Frame Rule (a Premium feature)

A Frame Rule is a rule that is associated with a text or a picture frame. Note that a Frame Rule can be “attached” to any frame in a document, but only one rule can be attached to any given frame. A Frame Rule can be applied to any frame, not just frames that contain Variable Links. The Actions associated with Frame Rules are limited to modifying the attributes of the frame, such as background color, shade, stroke, etc. However, if your AccurioPro VDP software installation includes the Scripting Module, you can also launch an external script to perform any other Action you wish.

## **Page Rule (a Premium feature)**

A Page Rule is a rule that is associated with a document page. Page Rules are evaluated before any merging or other page processing begins. The Actions associated with Page Rules are limited to “Omit Page from Print” and “Apply Master Page”. However, if your AccurioPro VDP software installation includes the Scripting Module, you can also launch an external script to perform any other Action you wish.

## **Rule Precedence**

It is important to understand the order in which the different rule types are evaluated and processed. The basic process is described below.

### **A) Page Rules (a Premium feature)**

At the start of a merge/updating process, assigned Page Rules are processed first. This allows the user to establish Actions that may affect the overall document layout, such as applying a master page.

### **B) Frame Rules (a Premium feature)**

Once the Page Rules have been evaluated, each frame in the document is processed in turn. Before a frame is processed, AccurioPro VDP checks to see if a Frame Rule has been applied to the frame. If a Frame Rule has been assigned to the frame, that rule is evaluated before the content of the frame is processed. This allows the user to establish Actions that may affect the frame attributes, or even the frame content, such as the case where an Action causes the frame to be deleted.

### **C) Link Rules**

Finally, the content of the frame is processed. This process is slightly different for Text or Article vs. Picture Links. Each process is described in the next section.

## Link Rule Processing

The processing for Link Rules may require a bit of explanation. The descriptions below describe how Link Rules are processed for Text, Picture, and Article Links.

### Text Link Processing

For Text Links, AccurioPro VDP scans through the story looking for Variable Links. When a Link is located, AccurioPro VDP first retrieves the data for the Link. Then, if a rule has been assigned to the Link, AccurioPro VDP passes the data to the Rules Module (along with the name of the rule to be processed). The Rules Module evaluates the rule, and returns the modified data. The modified data is then merged into the Link, and processing continues.

### Picture Link Processing

For Picture Links, the process is identical to that of Text Links. However, if a Link Rule has been assigned to a Picture Link, AccurioPro VDP passes the data to the Rules Module where the data is evaluated and modified. The data returned from the Rules Module is assumed to be the name of a picture file to be merged. AccurioPro VDP will scan the normal search paths to try and locate the file.

### Article Link Processing (a Premium feature)

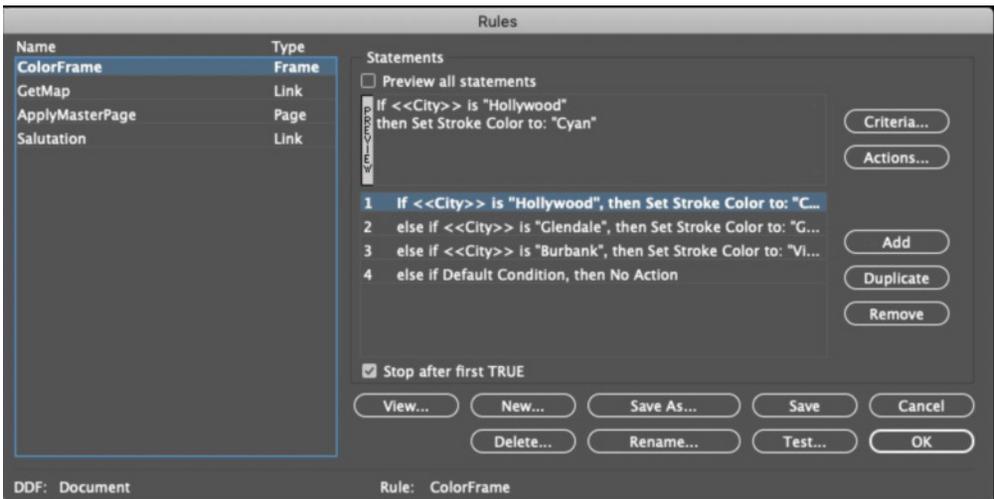
The processing for Article Links (a Premium feature) proceeds in the same fashion as Text Link Processing. The only difference is that if the Variable Link is defined as an “Article Link”, the modified data returned from the Rules Module is assumed to be the name of a text file to be merged. AccurioPro VDP will scan the normal search paths to try and locate the file.

## Managing Rules

This section describes how to create a rule or modify an existing rule. To create or edit rules, you must use the **Rules** window. To access this window, follow the steps below:

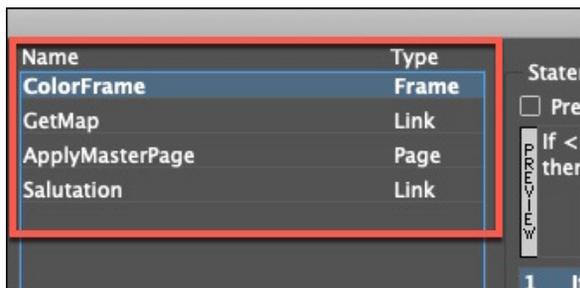
### 1) Select **Rules** from the **AccurioPro** ⇨ **Setup** menu.

This opens the **Rules** window. Note the **Rules** window in the picture below displays the rules that exist in **Tutorial #1c**. You may see a different set of Rules when you open the **Rules** window. To see the same set of Rules that are shown in the picture below, open the Form Letter Pro tutorial document before you open the **Rules** window.



## Rules Window Description

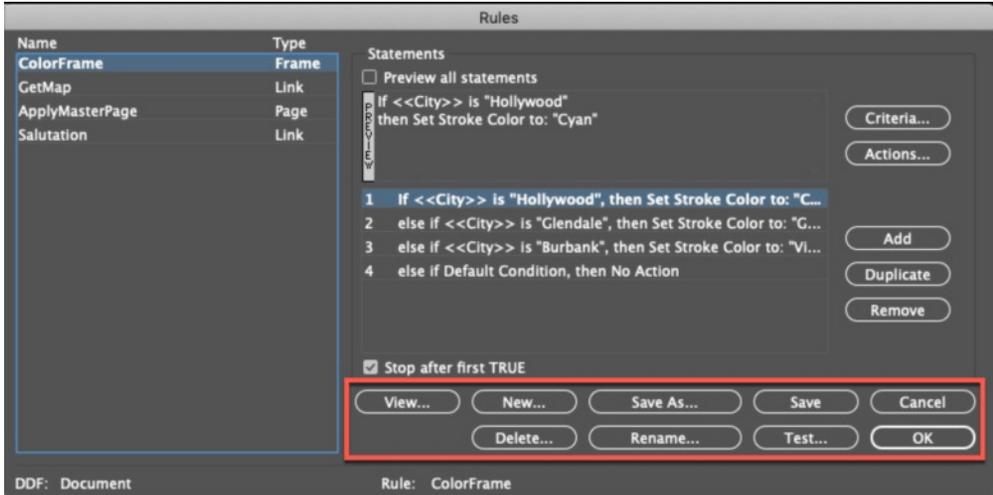
The list on the left side of the window shows all of the rules that have been defined for the Current DDF (Data Source Definition). The first column of the list shows the name of the rule, and the second column lists the rule type, as shown in the example below:



## Rules™ Module

To edit or view an existing rule, select it in the list. The window will change to show you how that rule has been defined.

The buttons towards the bottom right side of the window, shown in the picture below, let you manage the rules:



Each button that is available towards the bottom of the **Rules** window to manage rules is described below.

### **View**

Opens a window with a larger preview of all Statements for the currently selected rule. The Statements can then be copied to the clipboard for printing.

### **New**

Creates a new rule.

### **Delete**

Deletes the currently selected rule. You will be warned that the rule is about to be deleted.

### **Save As**

Saves the currently selected rule under a different name. You may also use this button to change the rule type (accomplished by saving the rule with the same name, but changing its rule type).

### **Rename**

Renames an existing Rule.

**Save**

Saves the changes made to the current rules. Changes are also saved if you click the **OK** button. However, clicking **OK** also closes the window. If you prefer the window stay open, select a different rule in the list or click **Save**.

**Test**

Tests the rule using live data. This is covered in a separate section of this manual.

**Cancel**

Discards all changes to the rules (unless the user had previously pressed the Save key), and closes the window.

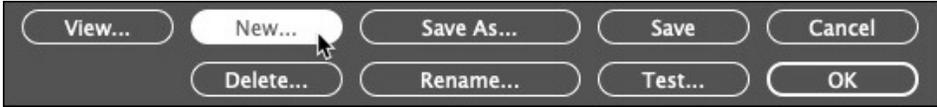
**OK**

Saves any changes to the rules and closes the window.

## Create a New Rule

To create a new rule, follow the steps outlined below.

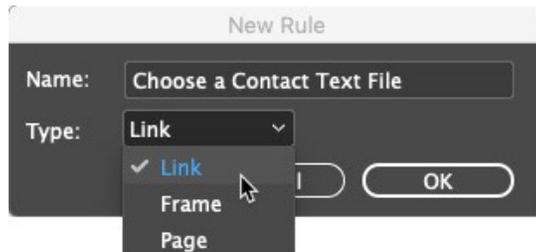
### 1) Click the **New** button.



### 2) Enter a name for the rule.



### 3) Select the rule type.



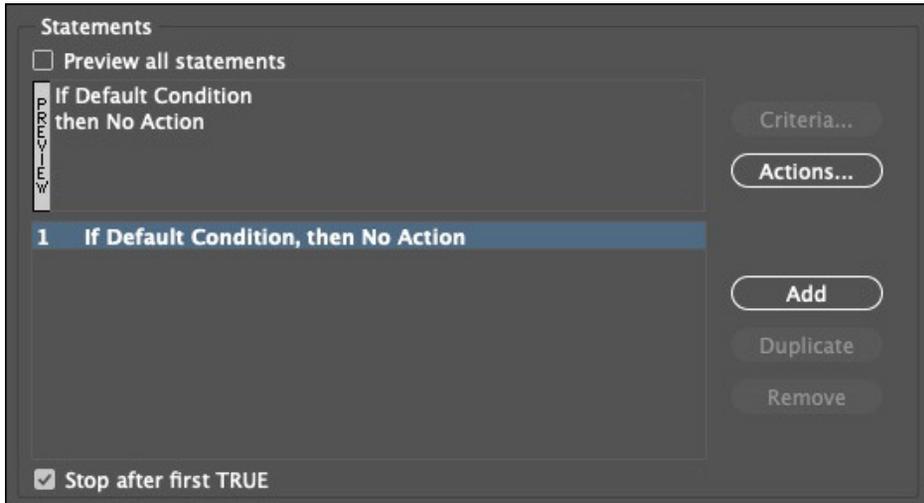
### 4) Click the **OK** button.

The rule will be created, and should now appear in the list of available rules.

Name	Type
<b>Choose a Contact Text File</b>	<b>Link</b>
ColorFrame	Frame
GetMap	Link
ApplyMasterPage	Page
Salutation	Link

## Rules and Statements

Rules consist of one or more Statements. A Statement consists of a set of Criteria, and a set of Actions. The Criteria are evaluated, and if the result of that evaluation is true, the Actions associated with the Statement are performed. The “Statements” box on the **Rules** window, as shown below, includes all of the options for editing and managing the Statements associated with the currently selected Rule.



Each button in the **Statements** box is described below.

### **Add**

Adds a new Statement to the list.

### **Duplicate**

Duplicates the currently selected Statement. Note that you cannot duplicate the last Statement in the list (the Default Condition Statement).

### **Remove**

Removes the currently selected Statement (without prompting).

### **Criteria**

Opens the **Criteria** window to edit the Criteria for the selected Statement.

### **Actions**

Opens the **Actions** window to edit the Actions for the selected Statement.

## Statements “Preview” Area

There is a **Preview** area at the top of the **Rules** window that displays the selected Statement in sentence format.



### Preview All Statements

By default, the Statements **Preview** area displays the currently selected Statement only. Note that there is a check box option at the top of the **Preview** area called **Preview all Statements**. If you check this option, then the **Preview** area will show all of the Statements for the rule and will highlight only the currently selected Statement.

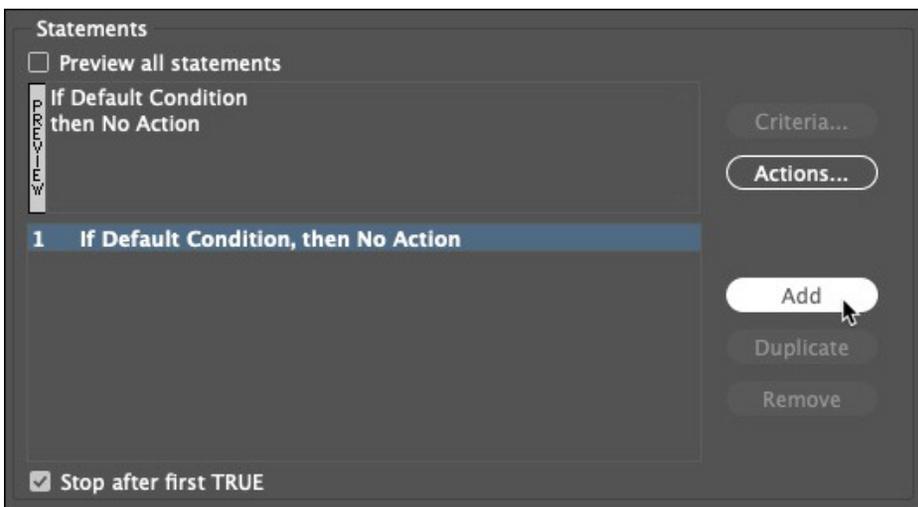
## Working With Statements

### The “Default Condition”

When a new rule is created, it will contain a single Statement that refers to something called the “Default Condition”. The Default Condition is something which is always true. Note that you cannot edit the Criteria for the Default Condition (because it is always true), and the Default Condition Statement is always the last Statement in the list. However, you can edit the Actions associated with the Default Condition (more about Actions later on). Generally speaking, the Default Condition Statement is the one that the rule will “default to” if none of the other Statements in the rule evaluate to true.



When you are working with a new rule, the first thing to do is add one or more Statements to the list. To do so, click the **Add** button. A new Statement will be added to the top of the list. Continue to click the **Add** button if you wish to add more than one Statement at a time.



## How Statements are Evaluated

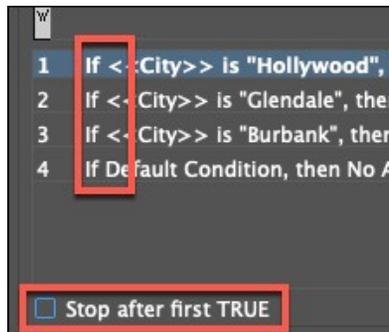
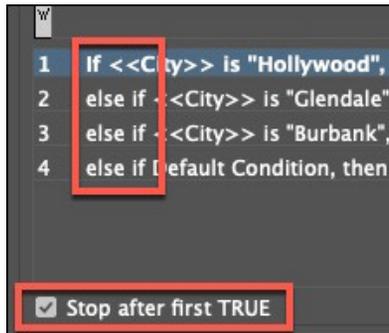
Statements are processed and evaluated in the order in which they appear in the list. You can drag Statements around in the list to change the order in which they are evaluated.

### Stop After First TRUE

The **Stop After First TRUE** check box option controls how the Statements are evaluated. If this box is checked, then the Statements are evaluated one at a time until one of the Statements is true. The Actions associated with that Statement are then performed, and processing stops at that point. If none of the Statements in the list evaluate to true, then processing falls through to the Default Condition Statement (which is always true). In this case, any Actions associated with the Default Condition Statement would be performed.

If you uncheck the **Stop After First TRUE** option, then all Statements are evaluated independently (including the Default Condition Statement). If a Statement evaluates to true, then the Actions associated with that Statement are performed, and processing continues with the next Statement in the rule.

Note that the Statements will change from If/Else to If/If depending upon the setting for the **Stop After First TRUE** option, as shown in the two examples below:

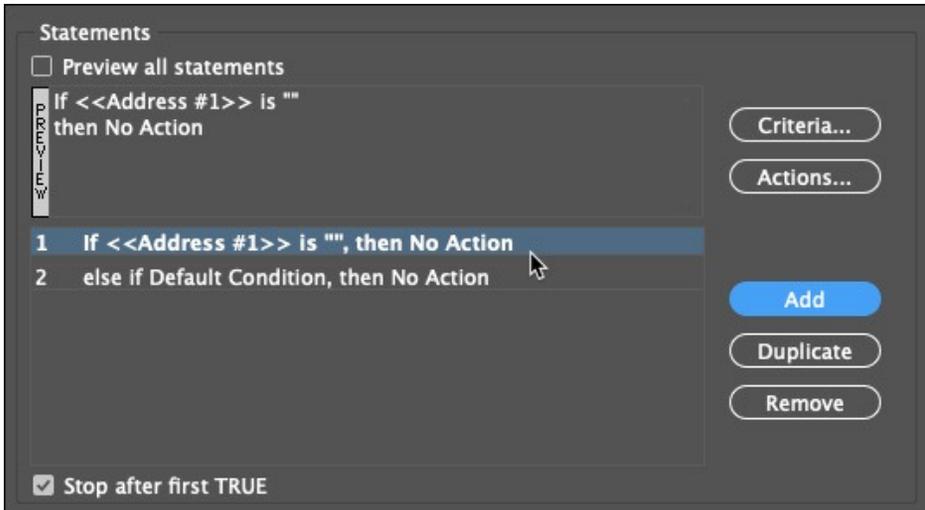


## Editing Criteria

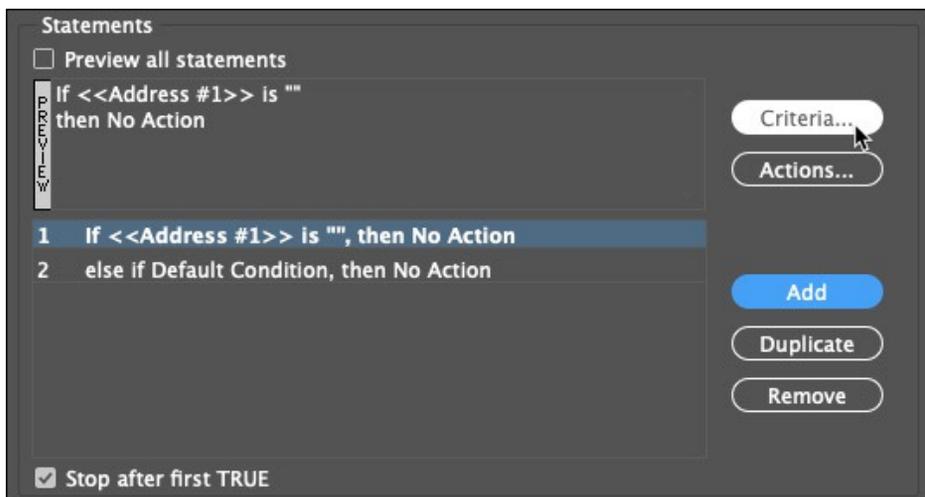
Criteria are a way of defining whether a condition is true or false. Each Statement includes a set of Criteria, and a set of Actions. When the Criteria for the Statement evaluate to true, the Actions associated with that Criteria are performed.

To edit the Criteria for a selected Statement, follow the steps below.

**1) Select the Statement you wish to edit by clicking on it in the list.**



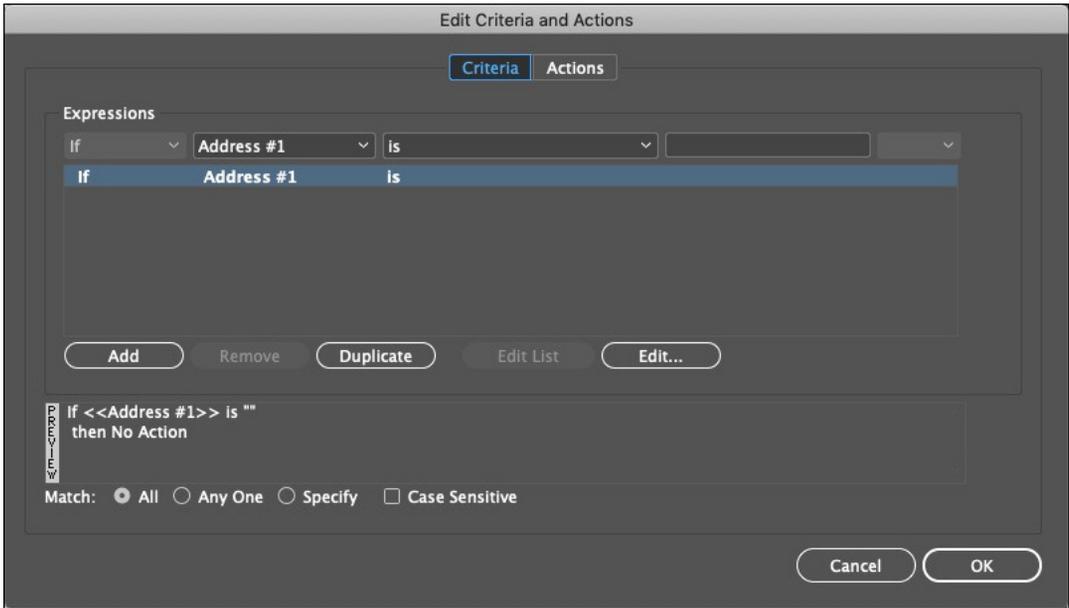
**2) Click on the Criteria button.**



3) The **Edit Criteria and Actions** window will open.

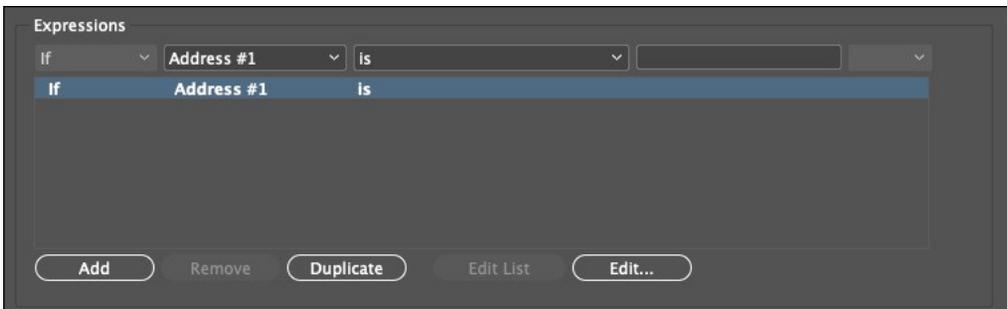
## Criteria Panel

The **Criteria** panel on the **Edit Criteria and Actions** window is shown below:



## Expressions Section

The Expressions section is where the user defines the expressions to be evaluated. By default, a single expression selection is selected in the list.



### Add Button

Clicking the **Add** button will insert additional expressions.

### Remove Button

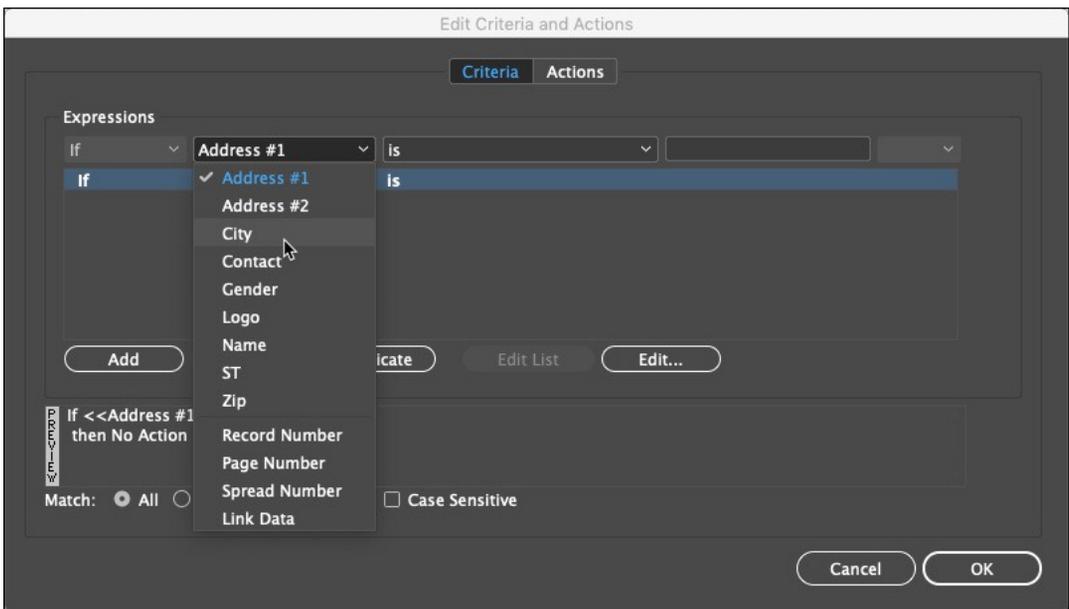
Clicking the **Remove** button will delete the currently selected expression.

### Duplicate Button

Clicking the **Duplicate** button will make a copy of the currently selected expression.

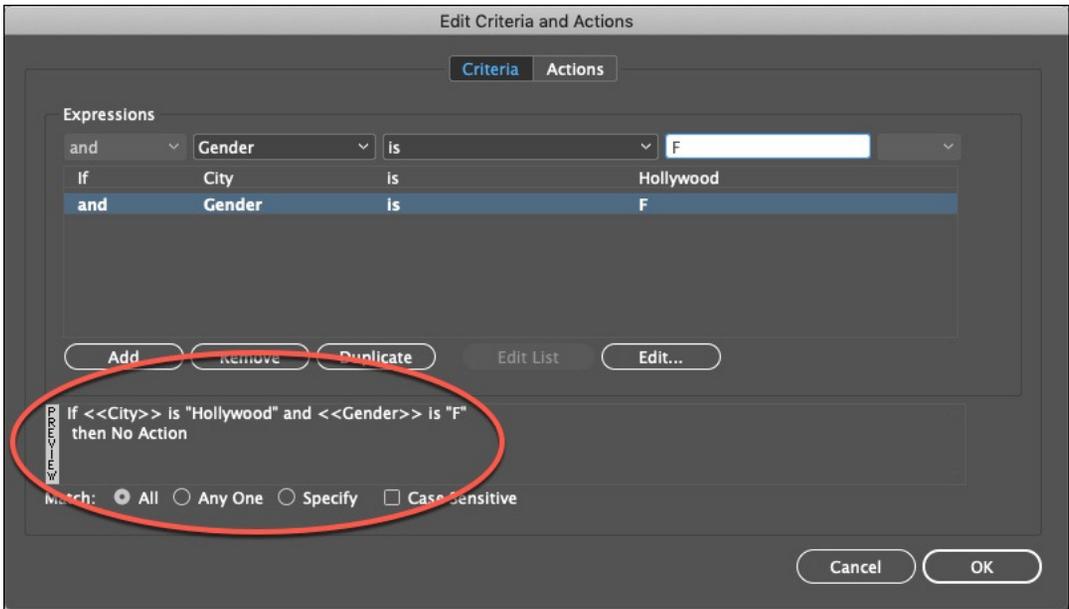
### Expression Settings

The popup menus and edit boxes at the top of the list allow you to change the selected expression. Changes to these options are automatically applied and should be visible in the list as soon as you make them.



## Criteria “Preview” Area

The Criteria **Preview** area at the bottom of the window shows the complete Criteria in sentence formation. This makes it easier to understand how your Criteria will be evaluated. The **Preview** area is interactive; any changes to the Criteria will be visible immediately.

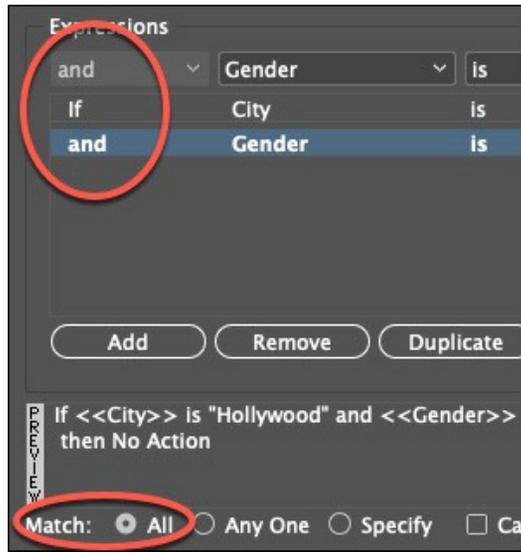


## Case Sensitivity

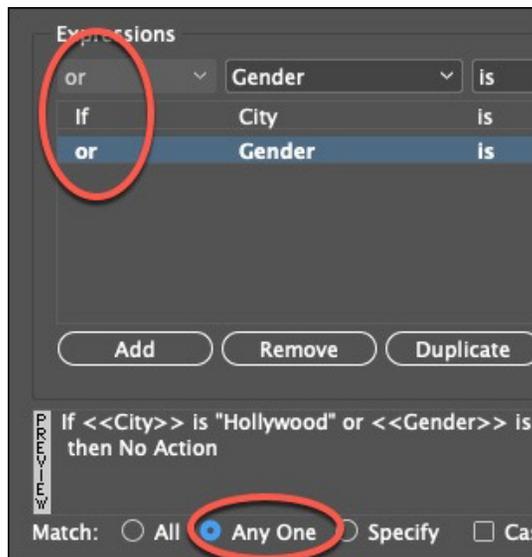
The **Case Sensitive** check box option determines whether the expressions will be evaluated with or without regard for letter case. This applies globally to all expressions specified for the Criteria.

## Match All vs. Match Any One

As shown below, there is a set of radio buttons at the bottom of the window titled “Match”. Selecting **Match: All** means that all of the specified expressions must evaluate to true in order for the Criteria itself to evaluate to true.

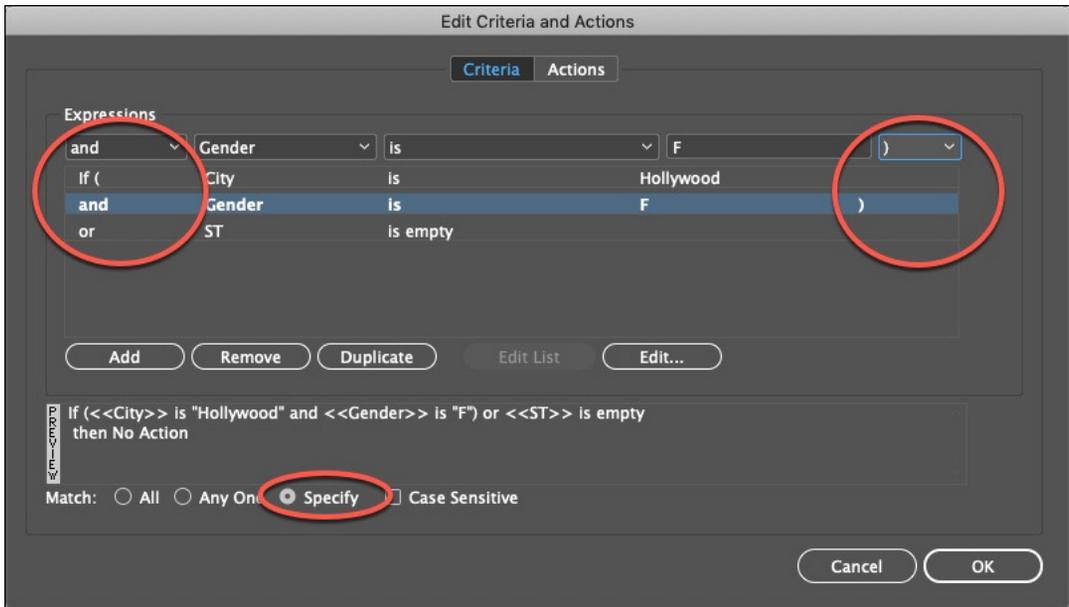


Selecting **Match: Any One** means that if any one of the specified expressions evaluate to true, so does the Criteria. An example is shown below:



## Match/Specify (Expression Groupings)

Clicking the **Match: Specify** radio button enables the small popup menus on both sides of the expressions area at the top of the list. These popup menus can be used to construct “nested” expressions. Nested expressions can be helpful when it is necessary to group two or more expressions, much in the fashion as a mathematical equation might be structured. The preview at the bottom of the window reflects the groupings by using parentheses, as shown in the example below:



## Evaluation of Expressions

Expressions are evaluated in a left-to-right, top-down order. Expressions that have been grouped (**Match: Specify**) are evaluated in the same fashion, except that expressions inside parentheses are always evaluated first. Using grouped expressions helps to clarify how an expression will be evaluated. For example, the expression [If <<A>> and <<B>> or <<C>>] might be more easily understood if expressed as [If (<<A>> and <<B>>) or <<C>>] which is how the Rules Module would evaluate the expression in either case.

## Edit Expressions

To edit an expression, you use the popup menus and edit boxes at the top of the list. Each of these options is described in detail below.

### If/Else Popups

The two small popup menus which appear on both sides of the edit area are collectively referred to as the If/Else popups. Note that these options will be enabled only if the **Match: Specify** radio button has been chosen. Otherwise, they remain dimmed, but will change to display how the currently selected expression has been defined. The first popup menu (the one on the left) allows you to define whether the expression is an If or an Else Statement. Note that the first expression in the list must always be an If Statement. Subsequent Statements can be of either type. The popup menu on the right allows you to select a balancing parenthesis when expression grouping is required.

### Variable Link Popup

This popup menu lists all of the Variable Links that have been defined for the Current DDF. The contents of the selected Variable Link (for the current Record Number) will be evaluated during a merge/updating session. Note that there are several pre-defined variables at the bottom of this list. Each is described below.

#### **Record Number**

This variable will be substituted with the data file Record Number being processed at the time the expression is evaluated.

#### **Page Number**

This variable will be substituted with the Page Number being processed at the time the expression is evaluated.

#### **Spread Number**

This variable will be substituted with the Spread Number being processed at the time the expression is evaluated.

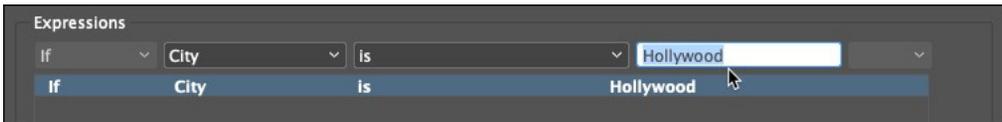
#### **Link Data**

This variable will be substituted with data from whichever Variable Link is assigned to the Link being processed. The Link Data variable can be useful for creating generic rules that can be shared with many different Variable Links. When you use the Link Data variable, whatever data is being merged at the time is the data that will be evaluated, and as such the comparison is not limited to a specific Variable Link.

## Qualifier Popup

This popup lists a series of “qualifiers” that will be used in conjunction with the Variable Link selection when the expression is evaluated. For example, the qualifier “contains” can be used in conjunction with a Variable Link to determine if the contents of the Link contains a text string (which is specified as an additional parameter to the Qualifier). Not all qualifiers require additional parameters. Some of the qualifiers expect a number as an additional parameter, while others can accept string (alpha-numeric) data, or a list of strings. Each qualifier type is detailed later in this manual.

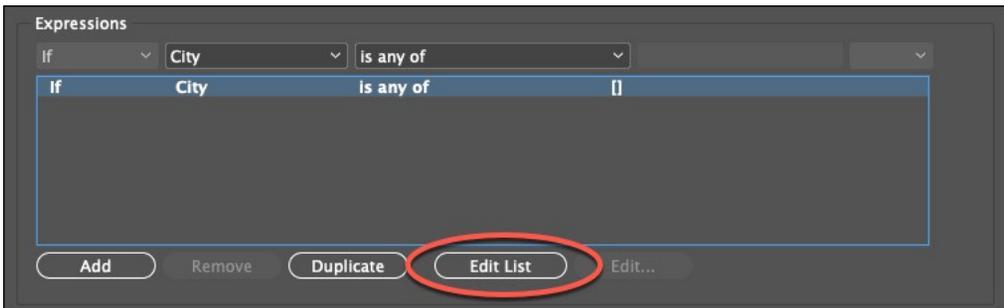
### Edit Box



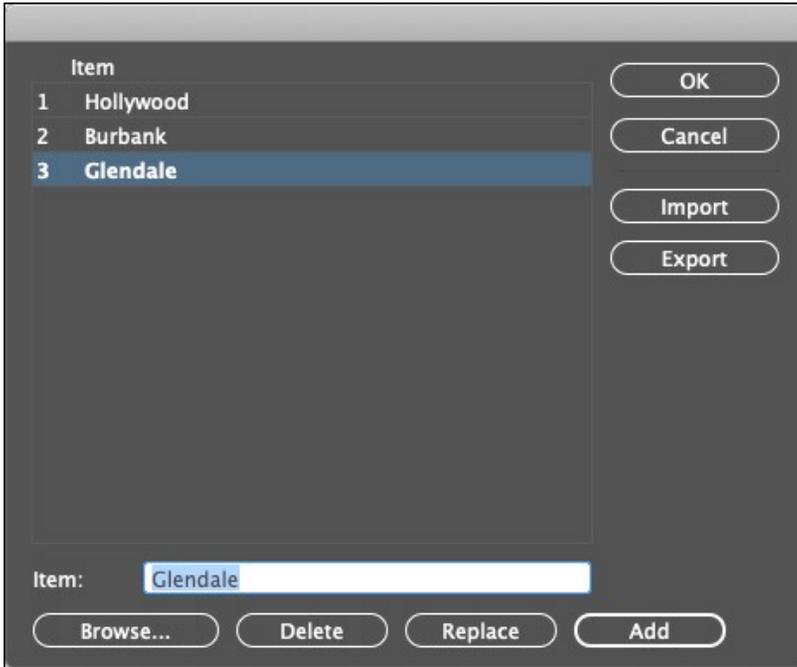
The Edit Box is where you enter the text that the variables will be compared to using the specified qualifier. For text and numeric qualifiers, you type the text directly into the edit box. For list qualifiers, use the **Edit List** button to enter your text items.

### “List” Qualifiers

There are several qualifiers that expect a list of text items to compare (is any of, contains all of, starts with any of, etc.) When one of these qualifiers has been selected, the **Edit List** button becomes enabled, as shown below:



Clicking the **Edit List** button opens the **List** window, shown below:



To add an item to the list, enter the text in the **Item** box and click the **Add** button.

Click the **Replace** button to replace an existing item with the text in the **Item** box.

Click the **Delete** button to remove an item from the list.

The **Browse** button can be used to select any file. The selected file name will be pasted into the **Item** box so it can be added to the list. This is handy for building up a list of file names.

Use the **Import** button to import a list from an existing file, and use the **Export** button to save the list to a file.

Clicking **OK** will save the list. Clicking **Cancel** will discard the list and keep whatever had been in the list originally.

## Rearrange Expressions

Expressions are evaluated in the order in which they appear in the list. To reposition an existing expression, you can click on it and drag it to a different list position.

Note that if you drag an existing expression to the top of the list (so it is the first expression in the list), it will automatically change to an “If” Statement, as this is a requirement for the first entry in the list.

## Save the Criteria

Click the **OK** button to save the expressions, or click the **Cancel** button to discard your changes and restore the previous Criteria.

## Syntax Checking for Criteria

If you select the **Specify** radio button, then you can “group” Criteria selections together to form more complicated Statements. Since this may involve the use of parentheses to form Criteria groups, the Rules Module will verify the syntax (e.g. check for matching open/close parentheses) and otherwise ensure that the specified Criteria can be evaluated without error. Note that you will not be allowed to save a Criteria until all syntax errors have been repaired.

## Qualifier Descriptions

Following is a detailed description of each of the available Expression qualifiers.

### Parameter Types

Qualifiers may require certain parameters be entered into the edit box. Each parameter type is described below. Note that **(cs)** denotes the comparison can be affected by the Case Sensitive check box setting for the Criteria.

#### **[text] (cs)**

A string up to 255 characters in length.

#### **[list] (cs)**

A list of [text] strings, each up to 255 characters in length.

#### **[number]**

Must contain digits and decimal point only.

## Qualifier Descriptions

Following is a brief description of each qualifier, along with the type of parameter that is expected for that qualifier.

### ***is [text] (cs)***

Variable text matches exactly the specified text parameter.

Example: "apple" is "apple" [true]

### ***contains [text] (cs)***

Variable text contains the specified text parameter.

Example: "apple" contains "pl" [true]

### ***starts with [text] (cs)***

Variable text starts with the specified text parameter.

Example: "apple" starts with "ap" [true]

### ***ends with [text] (cs)***

Variable text ends with the specified text parameter.

Example: "apple" ends with "le" [true]

### ***is empty***

The data for the Variable Link is empty.

Example: "" is empty [true]

### ***is not [text] (cs)***

Variable text does not match exactly the specified text parameter.

Example: "apple" is not "john" [true]

### ***doesn't contain [text] (cs)***

Variable text does not contain the specified text parameter.

Example: "apple" doesn't contain "zz" [true]

### ***doesn't start with [text] (cs)***

Variable text does not start with the specified text parameter.

Example: "apple" doesn't start with "ex" [true]

### ***doesn't end with [text] (cs)***

Variable text does not end with the specified text parameter.

Example: "apple" doesn't end with "ap" [true]

***is not empty***

Variable text contains at least one character.

Example: "apple" is not empty [true]

***is any of [list] (cs)***

Variable text matches exactly one of a list of text items.

Example: "apple" is one of ["bear", "candy", "apple"] [true]

***contains any of [list] (cs)***

Variable text contains any one of a list of text items.

Example: "apple" contains any of ["zz", "pl", "pp"] [true]

***contains all of [list] (cs)***

Variable text contains all text items in the list.

Example: "apple" contains all of ["a", "p", "e"] [true]

***starts with any of [list] (cs)***

Variable text starts with any one of a list of text items.

Example: "apple" starts with any of ["ap", "z", "ea"] [true]

***ends with any of [list] (cs)***

Variable text ends with any one of a list of text items.

Example: "apple" ends with any of ["le", "ch", "ey"] [true]

***is not any of [list] (cs)***

Variable text does not match exactly any one of a list of text items.

Example: "apple" is not any of ["bear", "monkey", "grape"] [true]

***doesn't contain any of [list] (cs)***

Variable text does not contain any one of a list of text items.

Example: "apple" doesn't contains any of ["zz", "le", "aa"] [false]

***doesn't contain all of [list] (cs)***

Variable text doesn't contain all text items in the list.

Example: "apple" doesn't contain all of ["a", "p", "e"] [false]

***doesn't start with any of [list] (cs)***

Variable text does not start with any one of a list of text items.

Example: "apple" doesn't start with any of ["ap","z","ea"] [false]

***doesn't end with any of [list] (cs)***

Variable text does not end with any one of a list of text items.

Example: "apple" doesn't end with any of ["le","ch","ey"] [false]

***is odd number (#) [number]***

Variable text is an odd number

Example: "3" is odd number [true]

***is even number (#) [number]***

Variable text is an even number

Example: "10" is even number [true]

***is alpha [text]***

Variable text contains at least one non-digit (0-9) character.

Example: "10a9" is alpha [true]

***is digit [text]***

Variable text contains all digits (0-9)

Example: "999" is digit [true]

***is less than (#) [number]***

Variable text contains a number that is less than the specified number.

Example: "999" is less than "888" [false]

***is greater than (#) [number]***

Variable text contains a number that is greater than the specified number.

Example: "999" is greater than "888" [true]

***is less than (string) [text] (cs)***

Performs a string comparison to determine if variable text is less than the specified text item.

Example: "Five" is less than "Three" [true]

***is greater than (string) [text] (cs)***

Performs a string comparison to determine if variable text is greater than the specified text item.

Example: "Five" is greater than "Nine" [false]

***is longer than [text]***

Variable text contains more characters than the specified text item.

Example: "apple" is longer than "giraffe" [false]

***is shorter than [text]***

Variable text contains fewer characters than the specified text item.

Example: "apple" is shorter than "giraffe" [true]

***is same length as [text]***

Variable text contains the same number of characters as the specified text item.

Example: "apple" is same length as "snake" [true]

***contains more than N chars [number]***

Variable text contains more than the specified number of characters.

Example: "apple" contains more than N chars "3" [true]

***contains less than N chars [number]***

Variable text contains fewer than the specified number of characters.

Example: "apple" contains less than N chars "3" [false]

***contains exactly N chars [number]***

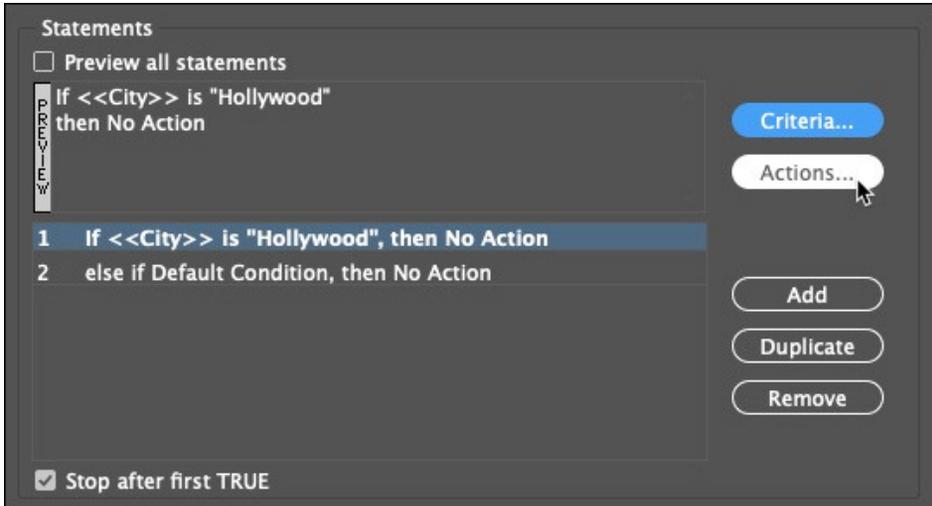
Variable text contains exactly the specified number of characters.

Example: "apple" contains exactly N chars "5" [true]

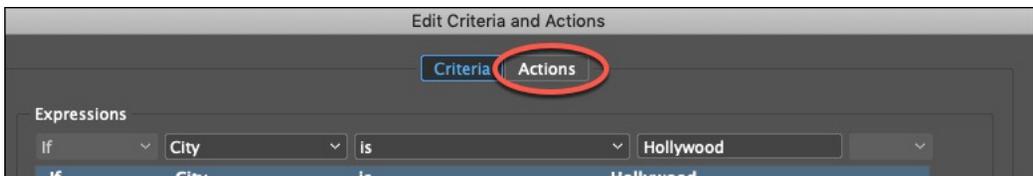
## Selecting Actions

As mentioned in the “Terminology” section, a Statement consists of Criteria and associated Actions. Each Statement can have one or more Actions associated with it that are “triggered” when the Statement evaluates to true.

To edit the Actions associated with a Statement, select the Statement and then click the **Actions** button, as shown below:

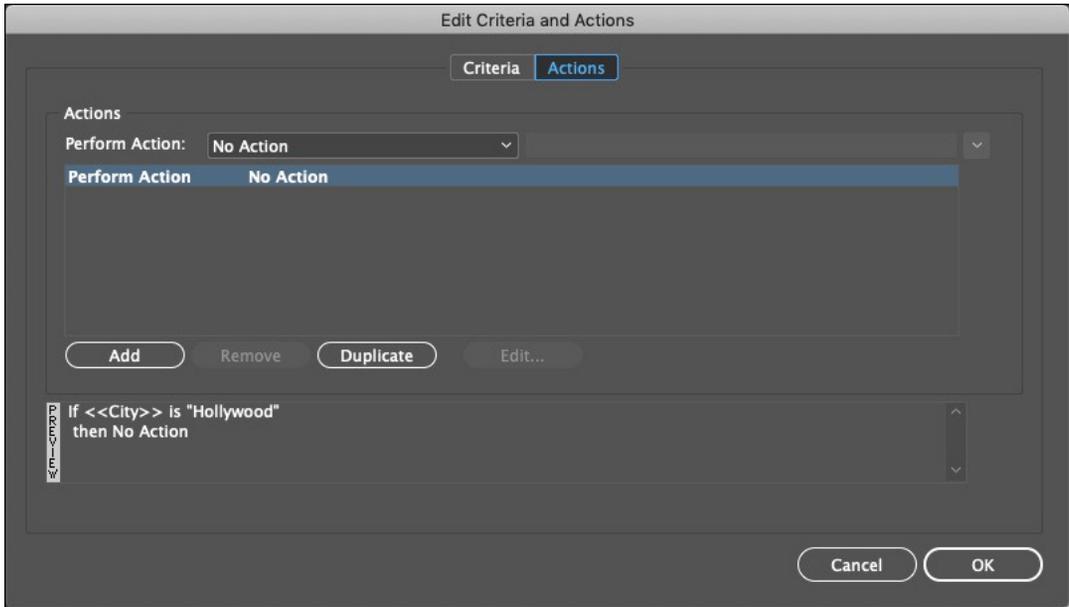


If the **Edit Criteria and Actions** window is already open, click the **Actions** tab, shown circled in the picture below, to open the Actions panel:



## Actions Panel

The **Actions** window allows the user to specify up to 5 different Actions to be performed. Actions are performed in the order in which they are defined. By default, a single Action item is displayed, as shown below:



To add an Action, click the **Add** button. Or, click the **Duplicate** button to add an Action that is a copy of the currently selected Action.

To reduce the number of Actions defined, click the **Remove** button.

To specify an Action, select it using the popup menu and enter an appropriate parameter into the edit box (if required).

Click the **OK** button to save the Actions. Press the **Cancel** button to discard the Actions and restore the original.

The Actions **Preview** area at the bottom of the window gives a representation of the Action items in sentence format.

## How Actions are Performed

Actions are performed in the order in which they appear in the window.

### Example

Assume that the <<Last Name>> field for record 6 contains the word “Smith”. A Criteria could be constructed as follows:

```
If <<Last Name>> is not empty,  
then Add Prefix: “Dear Mr. ” and Add Suffix: “,”
```

The result would be that “Smith” would become “Dear Mr. Smith,”.

### Conflicting Actions

It is possible to have “conflicting Actions”, that is, where one Action negates the effects of the first Action. For example:

```
Add Prefix “Dear Mr.”  
Add Suffix “,”  
Set Data to: “Hello There”
```

In the above example, the third Action to be performed sets the incoming data to a specific text string, thus negating the effects of the previous two Actions. The Rules Module makes no attempt to identify such conditions. Note that this condition is inefficient because it causes unnecessary processing to occur; however, it is not problematic in that the merged data is completely valid.

### Actions and Rule Types

The Actions available for a Rule are specific to the type of Rule that is being created. The Actions available for each rule type are listed below.

#### **All Rules**

No Action

Show Alert:

**Link Rules**

Set Data to:

Set Data to Empty

Get Data from Link Name:

Add Prefix:

Add Suffix:

Apply Para Style Sheet:

Apply Char Style Sheet:

Launch External Script:

**Frame Rules**

Delete Frame

Set Frame Color to:

Set Frame Shade to:

Set Stroke Color to:

Set Stroke Shade to:

Set Stroke Width to:

Set PDF Page Number to Import:

Launch External Script:

**Page Rules**

Apply Master Page:

Apply and Resize Master Page:

Hide Layer:

Show Layer:

Hide All Layers

Show All Layers

Omit Page from Print

Launch External Script:

## Action Descriptions

Each Action is described below.

### No Action

Do nothing. This is the default Action. This action is available for all types of Rules (Link, Frame, and Page). Note this does not prevent the Link or Frame or Page from being merged. Instead, this indicates the Rule will not take any action. The Link or Frame or Page will be merged normally as though no Rule is assigned to it.

### Show Alert: [message of the alert]

Display an alert window that contains the specified message. This action is available for all types of Rules (Link, Frame, and Page).

### Set Data to: [string]

Set the incoming data to the specified text string. For assistance in setting up a *Set Data To* string, you may prefer to click the **Edit** button to open the **Edit Rules Data** window.

To set the data to a file name, click **Insert Filename**. Browse to select the file whose name you wish to insert and click **Open**. This will place the file's name in the edit box.

Also, if you are running a Premium edition of the software, support has been added to embed Variable Links in this text string. In this case, when a merge/updating session applies a *Set Data To* action, AccurioPro VDP will merge/update any Links that are embedded in the *Set Data To* text string, replacing each Embedded Link in the string with data. Each Embedded Link will retrieve its data from the record that you referenced (Previous Record, Current Record, or Next Record) when you embedded that link in the *Set Data To* text string. To embed a Variable Link in the string, select the Name of the Variable Link from the **Insert Variable Links** popup menu, described in the following paragraph. If you prefer to enter an embedded link manually, enter the Link's Name and then bracket the Link Name with either the **<\$** and **>** characters or with the **[\$** and **]** characters (for example, to embed a Link named **"ZIP5"**, place **<\$ZIP5>** or place **[\$ZIP5]** in the string). To reference the previous record, append **"--"** to the Link Name (for example, place **<\$ZIP5-->** or place **[\$ZIP5--]** in the string). To reference the next record, append **"++"** to the Link Name (for example, place **<\$ZIP5++>** or place **[\$ZIP5++]** in the string). When copying/cutting an embedded link that has been placed in a *Set Data To* text string, be careful to include its bracketing characters in your selection of text.

To assist in embedding Links, the **Edit Rules Data** window provides a list of the Variable Links in the Current DDF. To insert a Variable Link in the text string, choose the Link from the **Insert Variable Link** popup menu. You will then be prompted to select a record reference (Previous Record, Current Record, or Next Record). Once you select a record reference, the Embedded Link will be inserted into the edit box with the appropriate syntax.

Additionally, the **Edit Rules Data** window provides a list of Templates to construct strings to produce, for example, Contact MECARD data, Contact vCard data, an e-mail address, a website URL, and a Text Message. To insert a Template, choose the Template you wish to use from the **Template** popup menu. This will insert the Template into the edit box where you can then edit the Link Names in the Embedded Links to match the appropriate Link Names in your Current DDF or replace the Template's Embedded Links with Links you select from the **Insert Variable Link** popup menu.

### ***Set Data to Empty***

Set the incoming data to empty.

### ***Get Data from Link Name: [name of a Variable Link]***

Get data from a different Variable Link. Type the name into the edit box, or use the popup button to select from a list of available Variable Link names. Note that the Rules Module will use the incoming record number to retrieve the data from the specified Variable Link.

### ***Add Prefix: [string]***

Add the specified text as a prefix to the incoming data.

### ***Add Suffix: [string]***

Add the specified text as a suffix to the incoming data.

### ***Apply Para Style Sheet: [name of a Paragraph Style Sheet]***

Apply the specified paragraph style sheet. Type the name of the style sheet into the edit box, or use the popup button to select from a list of available paragraph style sheets.

### ***Apply Char Style Sheet: [name of a Character Style Sheet]***

Apply the specified character style sheet. Type the name of the style sheet into the edit box, or use the popup button to select from a list of the currently available character style sheets.

### ***Delete Frame***

Delete the frame that has been associated with the rule.

### ***Set Frame Color to: [name of a Color]***

Set the background color of the frame to the specified color. Type the name of the color into the edit box, or use the popup button to select from a list of the document's Color Swatches.

### ***Set Frame Shade to: [% shade]***

Set the background shade of the frame to the specified percentage. Type the percentage shade value into the edit box, or click the popup button to select from a list of common shade values.

**Set Stroke Color to: [name of a Color]**

Set the color of the Stroke to the specified color. Type the name of the color into the edit box, or use the popup button to select from a list of the document's Color Swatches.

**Set Stroke Shade to: [% shade]**

Set the shade of the stroke to the specified percentage. Type the percentage shade value into the edit box, or use the popup button to select from a list of common shade values.

**Set Stroke Width to: [frame width]**

Set the width of the stroke to the specified size. Type the width value into the edit box, or use the popup button to select from a list of common width values.

**Set PDF Page Number to Import**

Specify which page of a PDF file will be imported by a Picture Link. Type the number of the page into the edit box.

**Apply Master Page: [name of master page]**

Apply a master page. Type the name of the master page into the edit box (omit the master page prefix), or use the popup button to select the name of the master page. Master pages may contain both fixed and variable content.

**Apply & Resize Master Page: [name of master page]**

Apply a master page and then resize the document page to match size of the applied master page. Type the name of the master page into the edit box (omit the master page prefix), or use the popup button to select the name of the master page. Master pages may contain both fixed and variable content.

**Hide Layer: [name of Layer]**

Specify the name of the Layer to be hidden. Type the name of the Layer into the edit box, or use the popup button to select from the document's available Layers. Note that you can also use the "Embedded Link" functionality (specify an embedded variable link to pull the name of the layer from the data file). See the description of the *Set Data To* Action for instructions to enter an Embedded Link manually in an edit box.

**Show Layer: [name of Layer]**

Specify the name of the Layer to be shown. Type the name of the Layer into the edit box, or use the popup button to select from the document's available Layers. Note that you can also use the "Embedded Link" functionality (specify an embedded variable link to pull the name of the layer from the data file). See the description of the *Set Data To* Action for instructions to enter an Embedded Link manually in an edit box.

**Hide All Layers**

Hides all Layers in the document.

**Show All Layers**

Shows all Layers in the document.

**Omit Page from Print**

Omits page from Print Driver output. Please note that this action applies only to Print Driver output. Pages will not be omitted during a Test or File merge session, or when using the page layout application's Print or Export command.

**Launch External Script: [file name of a script]**

Launch a compiled script. This action is available for all types of Rules (Link, Frame, and Page). Macintosh versions support AppleScripts and JavaScripts; Windows versions support JavaScripts and Visual Basic scripts. Please note that this Action requires the use of the Scripting Module. If the Scripting Module has not been installed, this Action will not be performed. See the **Scripting** manual for more information about using this Action.

## Testing a Rule

Once you have defined a rule, you may wish to test the rule to see how it behaves using actual data file information. To test a rule, click on the **Test** button, and select a data file when prompted to do so. The **Test Rule** window will be displayed.

**Test Rule**

Rule Name: GetMap Execute

Rule Type: Link Done

Record Number: 1 << >> Select Data File...

Page Number: 1

Spread Number: 1  Show Data

If <<City>> is "Hollywood", then Set Data to: "HollywoodMap.eps" [TRUE]  
 else if <<City>> is "Glendale", then Set Data to: "GlendaleMap.eps" [false]  
 else if <<City>> is "Burbank", then Set Data to: "BurbankMap.eps" [false]  
 else if Default Condition, then Show Alert: "Unknown City for GetMap!" [true]

Set Data to: "HollywoodMap.eps"

## Test Rule Window

Using this window, you can step through the specified data file to see how the rule will be evaluated by the Rules Module. Each of these options is described below.

### Rule Name & Type

The name and type of the rule is displayed at the top of the window. This is for information purposes only. You cannot choose a different rule or change the rule type from this window.

### Record Number

This setting simulates the record number being processed. When you click the **Execute** button, data will be extracted for the record number specified here, and the rule will be evaluated using that data.

## [<<] and [>>]

Use these buttons to step through each record of the data file to see how the rule behaves for different data values.

## Page and Spread Number

This setting simulates the current page and spread being processed. If your rule examines either of these values, change the values here for testing purposes.

## Execute

This button “executes” the rule. That is, it submits the specified Record, Page, and Spread number to the Rules Module. The Rules Module evaluates the expressions and returns the results in the Results **Preview** area at the bottom of the window.

## Done

Closes the window.

## Select Data File

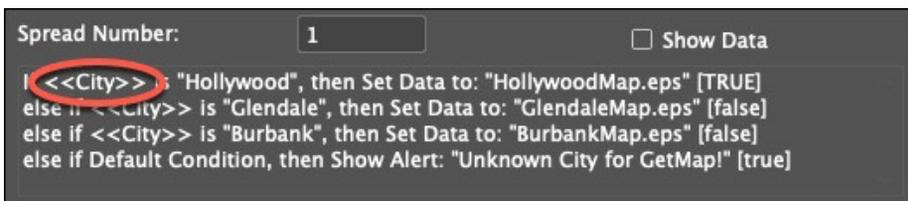
Select a different data file for the test.

## Rule Statements “Preview” Area

When you click the **Execute** button, the rule is evaluated and the **Preview** area is filled with the evaluation results for each expression in the rule.

## Show Data

This option controls how the rule is displayed in the Rule **Preview** area. If this box is unchecked/disabled (the default option), the names of any variables appear literally in the **Preview** area. For instance, the <<City>> Variable Link would normally be displayed like this in the **Preview** area:



If you have checked/enabled the **Show Data** option, then each Variable Link name in the **Preview** area will be replaced with the data that is being used to evaluate the expression. As you scroll through each data record, you will continue to see the value of <<City>> change to reflect what had been read for that record.

For instance, below is an example of the Rule **Preview** area that is displaying the data for the <<City>> Variable Link:



## When an Expression is True

Once you have clicked the **Execute** button, each expression is evaluated by the rules module. The results of each evaluation is displayed at the end of the expression in the Rule **Preview** area. There are three possible result values:

### [TRUE]

This means that the expression is true, and that it will trigger one or more Actions. The Actions that would be performed appear in the Results **Preview** area.

### [true]

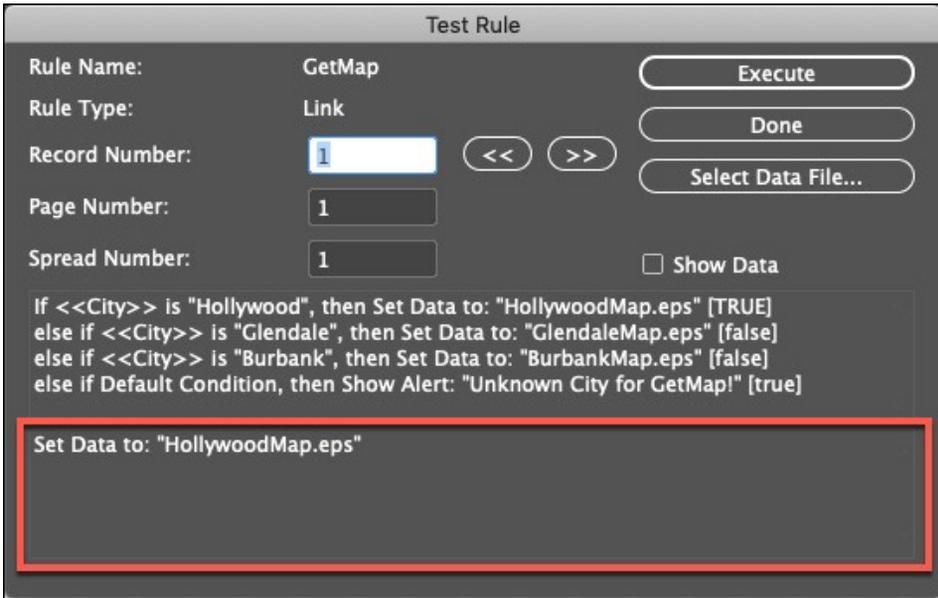
This means that the expression is true, but that none of its Actions were performed. This could be because the **Stop After First TRUE** option is enabled for the rule. As such, the first time a true expression was encountered, the Actions for that expression were performed. However, even though subsequent expressions evaluated to true, there were no Actions performed (because processing stopped when the first true expression was encountered).

### [false]

This means the expression is false. None of its Actions were performed.

## Rule Results “Preview” Area

The Results **Preview** area at the bottom of the window lists all Actions that “would have” been performed had the rule been evaluated during a live merge/updating session. Note that the Actions listed here are for preview only and do not affect the current document. In fact, you need not have a document open in order to test rules.



## Using Rules in a Document

The method by which you assign rules to a document varies by Rule Type. The use of each Rule Type is described below.

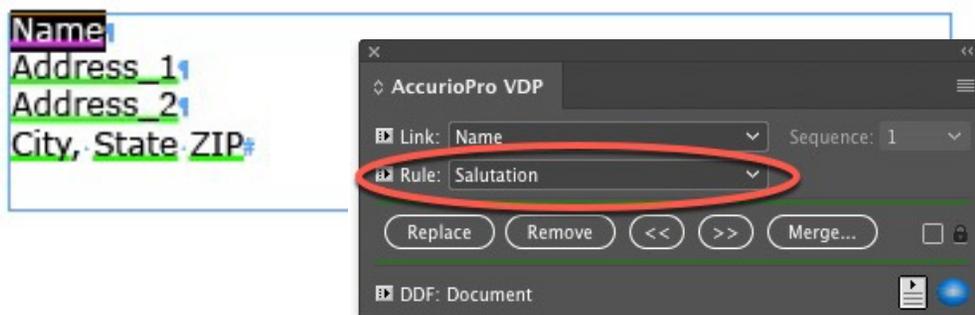
### Rules and Data Source Definitions

All Rule definitions are stored as a part of the Data Source Definition (DDF). The DDF also holds all of the other setup information, such as Variable Link names, Field Names, Translation Table names, etc. Every time you save a document, a copy of the DDF that is in effect for that document is saved along with it. You can also export your DDF information for archive purposes, or to transfer DDF information to another workstation.

### Use Link Rules

Link Rules serve to modify the data that is being merged, and are therefore attached to Variable Links in the document. Once you have defined a Link Rule, it can then be applied to any Variable Link within the document.

Link Rules will appear under a separate popup menu on the **AccurioPro** panel. Rules are selected by using the popup menus or the panel's Rules List and then clicking the **Assign/Replace** button to store the name of the rule with the Variable Link. You can also drag a Rule from the Rules List and drop it on a Link selection in the document to assign the Rule.



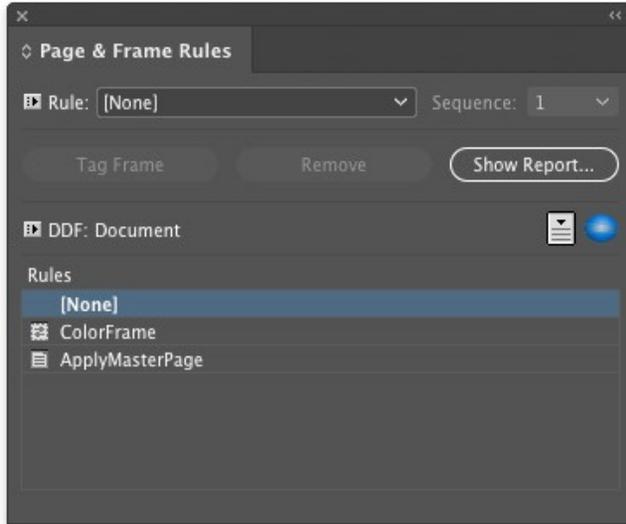
To see a report of all Link Rules assigned in a document, run a Variable Link Report (covered in **Tutorial #1b** in the AccurioPro VDP Tutorials). The **Variable Link Report** window will detail all of the Variable Links in a document, and also show the Link Rules that are associated with those Links.

## Use Frame Rules (a Premium feature)

Frame Rules serve to modify text or picture frame attributes, and are not associated with Variable Links. Therefore, you can assign a Frame Rule to any frame in the document—not just frames that contain Variable Links.

Frame and Page Rule assignments are managed via a separate panel called the **Page & Frame Rules** panel. To view this panel, select **Rules Panel** under the **AccurioPro View** menu.

For example, the **Page & Frame Rules** panel for **Tutorial #1c** looks like this:



To assign a Frame Rule, follow these steps.

**1) Click on the frame you wish to tag.**

Select the frame you wish to tag with a Frame Rule. You must use the InDesign Selection  tool, or the Direct Selection  tool to select the frame.

**2) Select a Frame Rule in the popup menu or Rules List.**

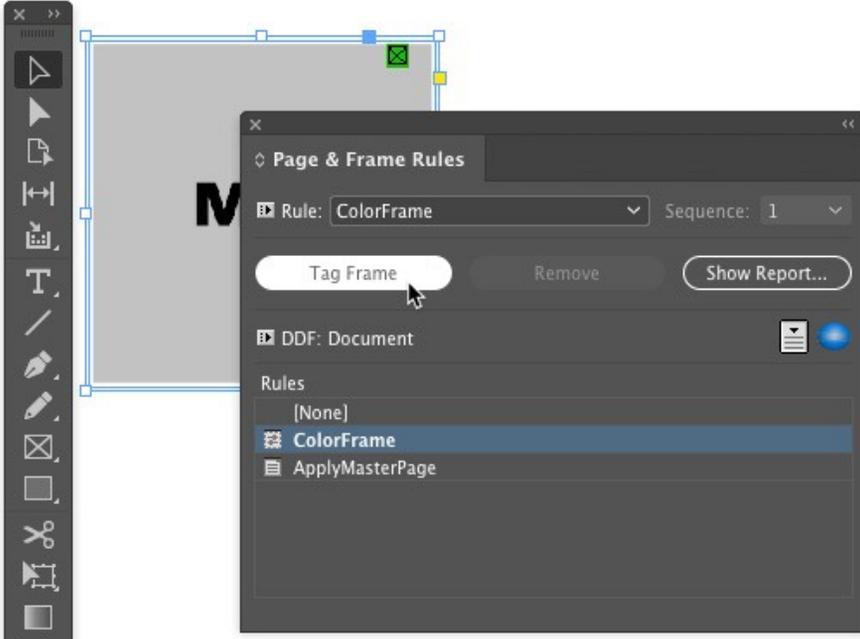
Use the popup menu or Rules List to select the Frame Rule you wish to assign.

**3) Confirm “1” is the Sequence number for this Frame Rule assignment.**

The sequence number will be the number 1 by default. For more information about sequence numbers, see **Tutorial #3**.

4) **Click the “Tag Frame” button.**

Click this button to attach the rule to the frame (or drag the name of the Rule from the List and drop it on top of the frame selection in the document). You will see a visual indicator (if Frame Edges are showing) indicating that a Frame Rule has been applied:



## Use Page Rules

Page Rules serve to modify entire pages. You can attach a Page Rule to one or more pages in the document using the **Page & Frame Rules** panel. To view this panel, select **Rules Panel** from the **AccurioPro VDP View** menu. The **Page & Frame Rules** panel for **Tutorial #1c** is used in this example.

To assign a Page Rule, follow these steps.

**1) Go to the page you wish to tag.**

Use the “Go to Page” function to go to the page in the document you wish to tag.

**2) Select a Page Rule in the popup menu or Rules List.**

Use the popup menu or Rules List to select the Page Rule you wish to assign.

**3) Confirm the page number that is displayed on the **Page & Frame Rules** panel.**

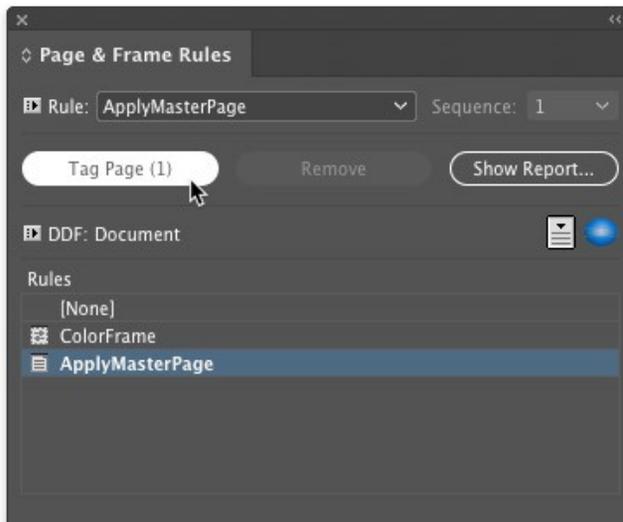
The panel displays a page number in parentheses on the **Tag Page** button to indicate which page will be tagged with the Page Rule.

**4) Confirm “1” is the **Sequence** number for this **Frame Rule** assignment.**

The sequence number will be the number 1 by default. For more information about sequence numbers, see **Tutorial #3**.

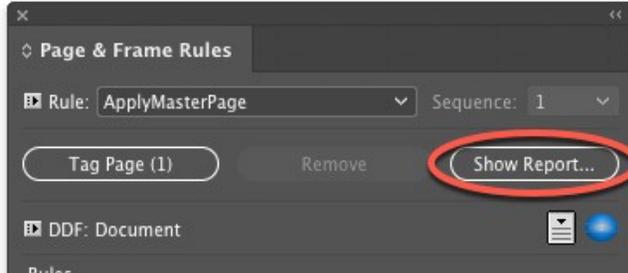
**5) Click the “Tag Page” button.**

Click this button to attach the rule to the Page.



## Page & Frame Rule Report

To display a list of all Page and Frame Rules in the current document, click the **Show Report** button on the panel.



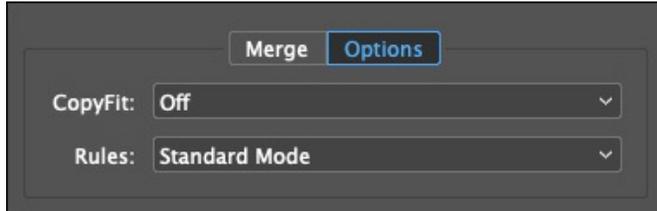
A report window will display all of the Page and Frame Rules assigned in the document. Click the **Show** button to see where the Rule has been assigned. Click the **Remove** button to remove the Rule assignment (note that the Rule definition is not deleted, just the assignment in the document). Click the **OK** button to dismiss the window.

Page & Frame Rule Report			
Rule Name	Type	Page	Status
ColorFrame	Frame	1	OK
ApplyMasterPage	Page	1	OK

At the bottom of the report window, there are three buttons: "Remove", "Show", and "OK".

## “Debugging” Rules in AccurioPro VDP

There is one Merge Session option related to the Rules Module which will assist you in the process of “debugging” your Rules. Click the **Options** button on the **AccurioPro** window to access a merge session’s **Rules** option, as shown below:



### **Enable Rules Processing**

To enable Rules Processing, choose either **Standard Mode** (as shown above) or **Interactive Mode**. This will ensure that your Rules are processed during the merge session. The difference between Standard and Interactive modes is discussed in a previous tutorial. Basically, Interactive Mode will prompt you to preview each rule as it is processed, and Standard Mode does not.

### **Interactive Mode**

If you select **Interactive Mode** (instead of **Standard Mode** which is the default setting), a live merge session will prompt you with the same **Test Rule** window described earlier in this manual. When Interactive Mode is enabled, the Test window will appear each time a Rule is being evaluated by AccurioPro VDP. Interactive Mode can be very useful for testing and verifying your rules.

## Use Interactive Mode for Rules

Using the Interactive Mode for Rules is simple. Just select the **Interactive Mode** option, and start the AccurioPro VDP merge session. A **Data Preview** merge session is a great way to use this mode, however, Interactive Mode works with all of the AccurioPro VDP output options. When a Rule is about to be evaluated, the **Test Rule (Interactive Mode)** window will be displayed. Below is an example from a merge session on the document for **Tutorial #1b**:

Test Rule (Interactive Mode)

Rule Name:	GetMap	Execute
Rule Type:	Link	Cancel
Record Number:	1	Cancel Session
Page Number:	1	<input checked="" type="checkbox"/> Interactive Mode
Spread Number:	1	<input type="checkbox"/> Show Data

```

If <<City>> is "Hollywood", then Set Data to: "HollywoodMap.eps" [TRUE]
else if <<City>> is "Glendale", then Set Data to: "GlendaleMap.eps" [false]
else if <<City>> is "Burbank", then Set Data to: "BurbankMap.eps" [false]
else if Default Condition, then Show Alert: "Unknown City for GetMap!" [true]

```

Set Data to: "HollywoodMap.eps"

When the **Test Rule (Interactive Mode)** window is displayed, you will notice several things that are different from the normal **Test Rule** window.

The first thing you will notice is that there is now an **Interactive Mode** check box option that is visible on the window. If you uncheck this box, then Interactive Mode will be disabled for the remainder of the merge session. This is handy because you may just wish to preview the first few rules to verify that everything is being evaluated properly, and then continue the session uninterrupted.

The next thing is that the Record, Page, and Spread number being processed is shown at the top of the window. However, unlike the standard **Test Rule** window, you cannot change these values or scroll through data records. These values represent what is actually being processed by AccurioPro VDP and therefore cannot be modified manually.

Record Number:	1
Page Number:	1
Spread Number:	1

The Rule **Preview** area shows the current rule in sentence format. You may use the **Show Data** option to examine the Variable Link names or live data.

The Actions **Preview** area shows the Actions that are about to be performed (if any).

## **Execute, Cancel, or Cancel Session**

The **Test Rule (Interactive Mode)** window provides three options to dismiss the window. Each is described below.

### **Execute**

Clicking the **Execute** button will perform the Actions listed in the Actions **Preview** area of the window. The window is dismissed, and the Actions are performed as soon as you click the **Execute** button.

### **Cancel**

The **Cancel** button dismisses the window, but does not perform any of the Actions listed in the **Preview** area. Note that for Link Rules, the Variable Link that is being processed will still be merged with data although the Rule applied to that Variable Link will be ignored.

### **Cancel Session**

Clicking this button not only dismisses the window, but also cancels the current merge session immediately.



*To continue a session, uncheck the **Interactive Mode** option and click the **Execute** button. If you wish to enable Standard Mode for your next merge session, you must select it via the **AccurioPro** window, as described earlier.*

## More Information

For more information about AccurioPro VDP and its modules, please see the information that is included in PDF format in AccurioPro VDP Documentation, as described below:

**Tutorials** present various features of AccurioPro VDP in an easy-to-follow, step-by-step format to help you quickly learn more about using AccurioPro VDP. You will find PDFs of the tutorials with accompanying sample files in the “AccurioPro VDP Tutorials” folder which is inside the “AccurioPro VDP Documentation” folder.

**Manuals** for modules in the AccurioPro VDP software package are available in PDF format inside their corresponding folders in the “Supplemental Documentation” folder.

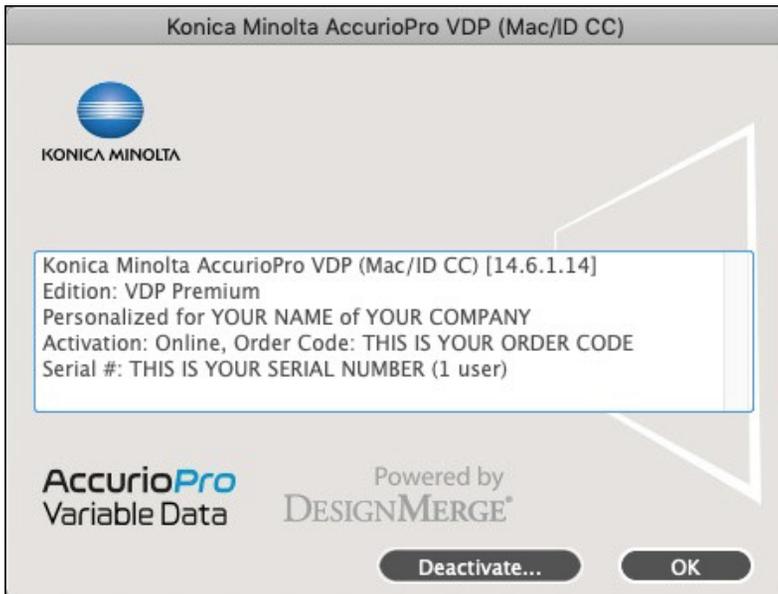


To download the latest version of AccurioPro VDP Documentation, go to [www.accurioprovd.com/downloads](http://www.accurioprovd.com/downloads).

## Technical Support

For information about AccurioPro VDP Support and to submit a Support Ticket, go to [www.accurioprovd.com/support](http://www.accurioprovd.com/support). You can also go to this web page by opening the **AccurioPro** menu and selecting **Help** ⇒ **Online Support Center**.

When requesting support, please provide your **AccurioPro VDP Order Code**. The Order Code was originally provided on an email message. You can also see which Order Code has been used to activate your installation of AccurioPro VDP by opening the **AccurioPro** menu and selecting **Help** ⇒ **About AccurioPro**. An example of the About AccurioPro VDP window is shown below:



*The About AccurioPro VDP window shown in the picture above allows you to deactivate the software. If you wish to move your installation of the software to a new system, open the About AccurioPro VDP window for your current installation and deactivate your current installation. You will then be able to install and activate the software on your new system. Note that deactivating the software does not uninstall it. To uninstall the software, quit InDesign. Then open your InDesign application's "Plug-Ins folder". You will see a "Meadows" folder inside the "Plug-Ins" folder. Delete this "Meadows" folder. This uninstalls (removes) the software from your InDesign application.*

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