DéjàClick Script Variables User's Guide

Boca Internet Technologies, Inc
4611 Johnson Road, Suite 6
Telephone: (954) 312-0188 Fax: (954) 312-0186
www.alertsite.com

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Table of Contents

DéjàClick Overview....2
Script Variables Features....2
Record a Transaction....3
Examples....4
Example 1 – Random String Script Variable....5
Example 2 - Dataset Script Variable....11
Example 3 – Script Variable as a Keyword....17
Example 4 – Location-Limited Tokens....21
Additional Information....26
Reusability....26
Imported vs. External Datasets....29
Customer Support....29

DéjàClick Overview

DéjàClick™ is the website monitoring industry's first completely built-into-the-browser site monitoring technology. DéjàClick delivers TrueUser™ monitoring that captures the entire interaction from the perspective of the web browser. Among the many advantages of DéjàClick are Script Variables. This document provides an overview of this feature along with some examples for use.

A prerequisite for using this guide is to be familiar with DéjàClick recording and uploading. If you don't have the DéjàClick toolbar in your Firefox browser, and/or you have never used DéjàClick before, please go to the AlertSite website, www.alertsite.com, hover over **Products** in the menu bar and select DéjàClick from the drop-down list. Once in the DéjàClick page, click on the DéjàClick Users Guide link in the right-side frame under Resources. After you have become comfortable with recording DéjàClick transactions, you'll be able to move on to this more advanced feature.

Script Variables Features

DéjàClick Script Variables are dynamic and can be pinned to a specific monitoring location. Here are several cases of special transaction monitoring requirements that Script Variables could be used to support:

- Login using a different user_id from each AlertSite monitoring location.
- Execute a registration transaction that requires a unique email address using "built-in" variables
- Use relative date variables to consistently populate reservations searches with future dates
- Navigate to a different URL depending on the monitoring location
- Perform specialized keyword checks

Script Variables are constructed from one or more tokens of the following types:

- static text
- random text
- random number
- auto-increment
- relative date time
- replay location
- dataset value

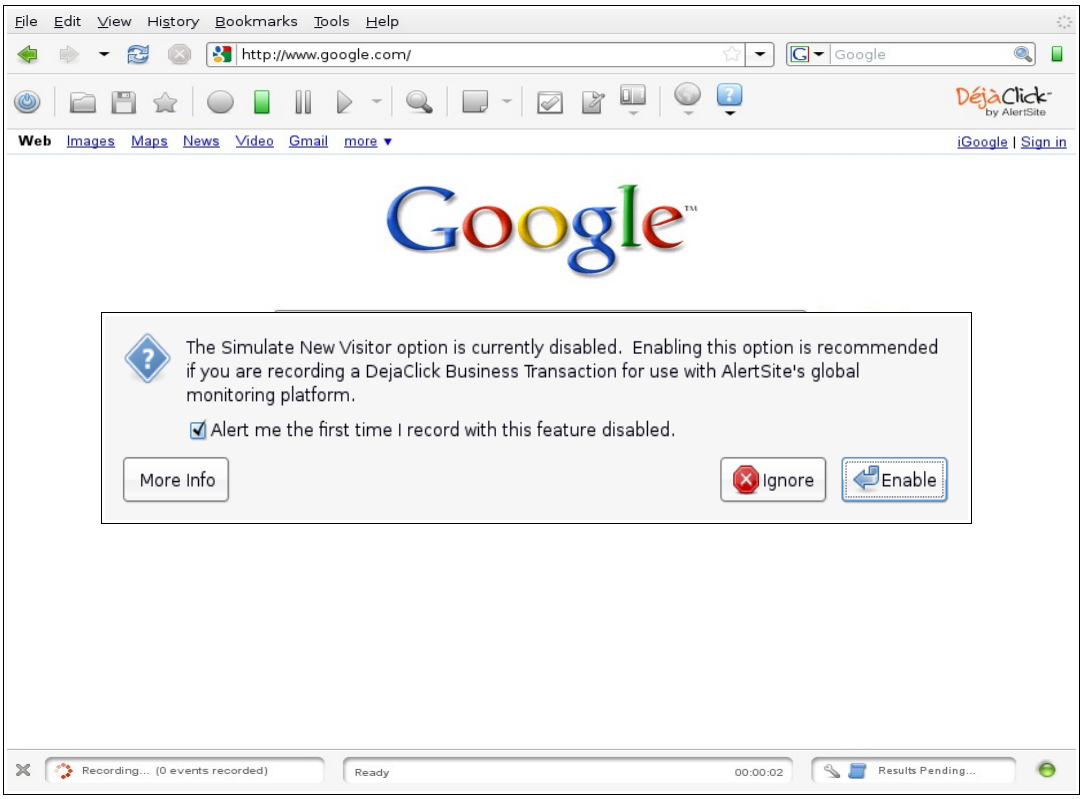
The *dataset value* allows a .CSV type file (comma-separated values) to be imported into the script for referencing required input data. Other field separator characters may also be used

➔ **Note:** DéjàClick version 1.3.0.0 or greater is required to use script variables.

Record a Transaction

Let's first record a transaction with DéjàClick. To make our examples simple, we'll use www.google.com.

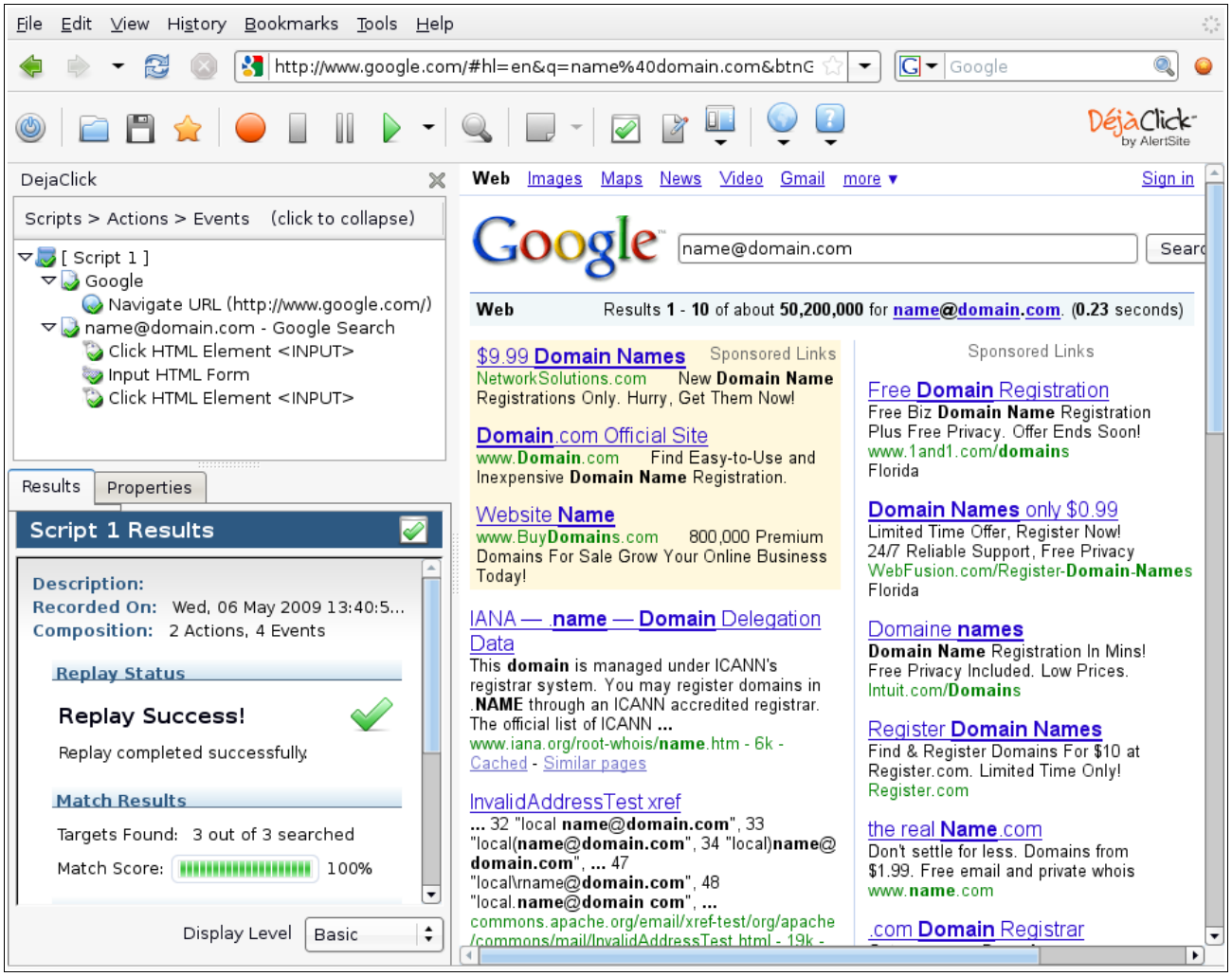
➔ **Note:** If the Simulate New Visitor dialog box appears, click the Enable button in the lower right.



Click in the Google search bar, enter some text and click `Google Search`. We'll use “name@domain.com” for the initial search. When the search completes, click the green stop button  to stop recording, and then **OK** in the confirmation dialog. This records a script containing 2 actions and 4 events.

Open the Script Results sidebar by clicking on the green check-mark icon in the DéjàClick toolbar, The sidebar has 3 parts:

1. The top section displays the DéjàClick actions and events,
2. The Results tab, and
3. The Properties tab



Click in the top of the sidebar heading to expand the DéjàClick steps and display Scripts->Actions->Events, then click the right-arrow icon to replay the recording:

Examples

This section provides four examples for using script variables: 1. generating a Google search using a random string variable, 2. an advanced Google search using datasets, 3. variable keywords, and 4. variables limited by location.

Several steps are required to set up a Script Variable. Once you know what variables you want to use in your

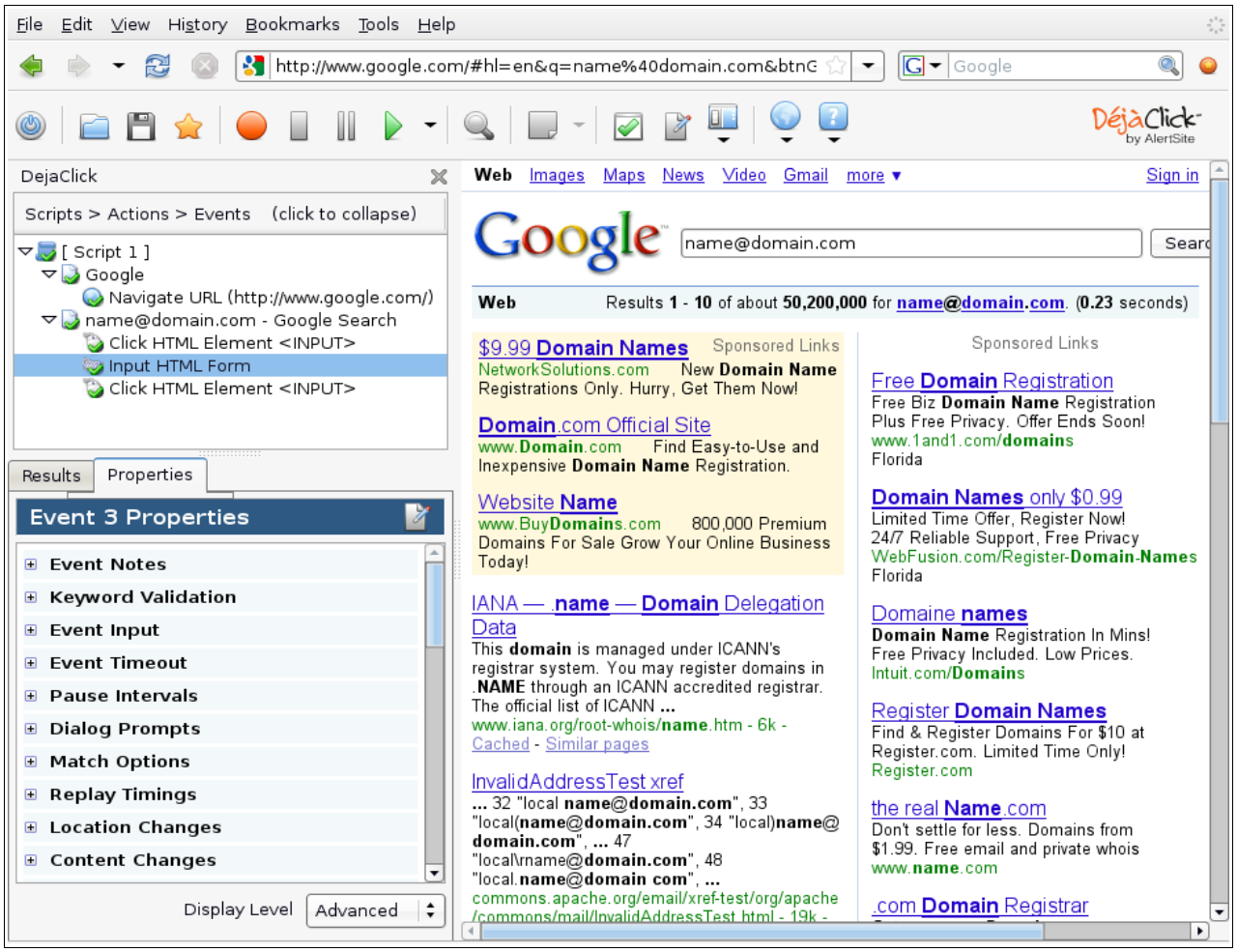
recording, it's a simple process.

Example 1 – Random String Script Variable

For our first example, we will generate random email addresses in the Google search box. We'll construct the email address script variable, which we will name `Random Email Address`, using 3 "tokens": a 4-character random string, a 3-digit number, and the static string "@mydomain.com".

- Click on **`Input HTML Form`** event in the DéjàClick sidebar script tree.
- Click the **`Properties`** tab

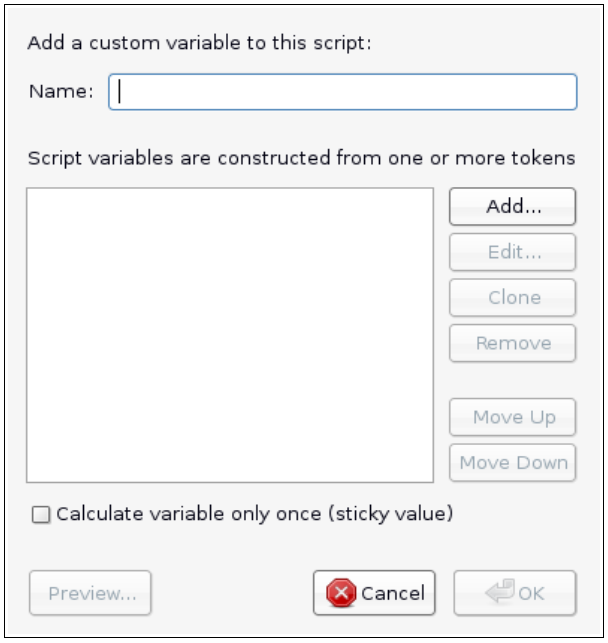
The sidebar will present the list of properties for the `Input HTML Form` event:



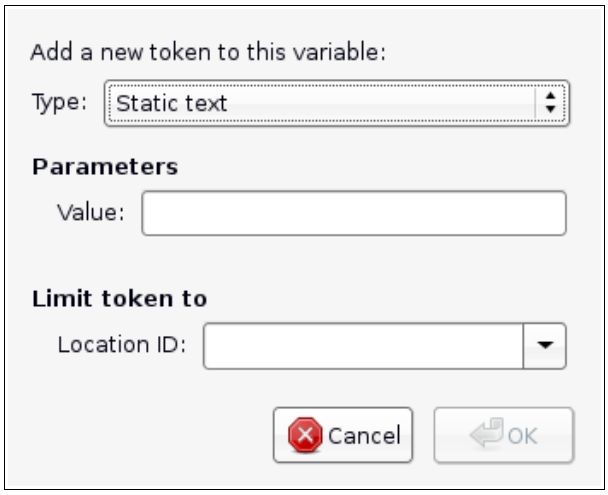
Next we will configure the script variable.

- Click **`Event Input`** to expand the Event Input properties panel
- Click the checkbox for **`Use script variable`**
- Click the **`Create a new script variable`** icon to the right of the **Select...** dropdown

Complete the dialog box that's presented (shown below) by providing a name for the custom variable and the tokens to be used to construct the variable:



After entering `Random Email Address` in the **`Name`** field, click the **`Add...`** button to display the Add Token dialog box:



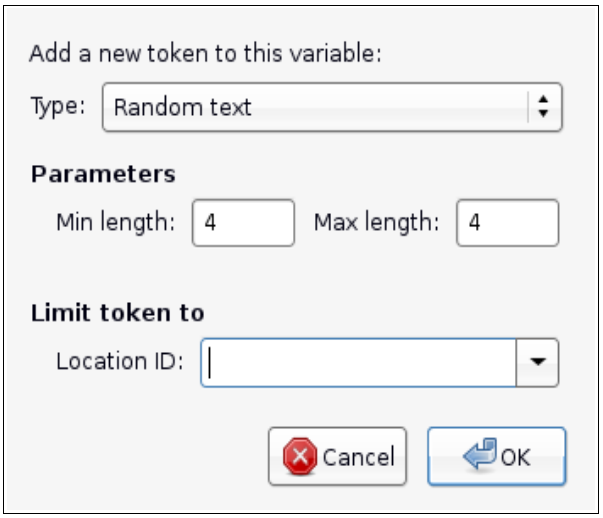
The **`Type`** dropdown list contains:

- Static Text
- Random Text
- Random Number
- Auto Increment
- Relative Date/Time
- Dataset Value
- Replay Location

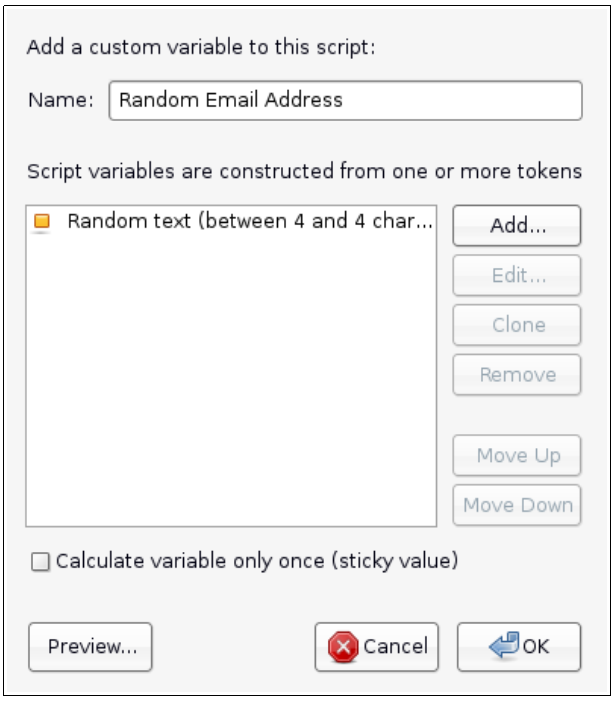
We will create the Random Email Address script variable with 3 tokens: one using Random Text, one using Random Number, and one using Static Text. Note that **`Parameters`** change depending on the **`Type`**.

1. Select **`Type: Random text`**
2. Enter minimum length 4 characters
3. Enter maximum length of 4 characters
4. Leave **`Location ID`** blank

The Add Token dialog box will appear as follows:



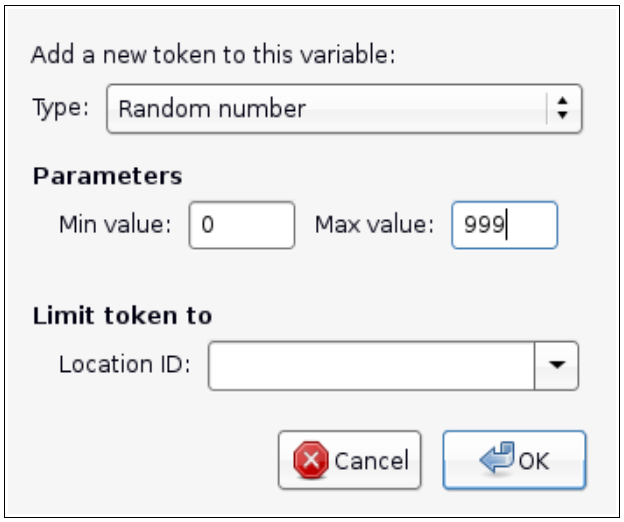
Click **`OK`** to save. Now the Add Script Variable dialog box will contain:



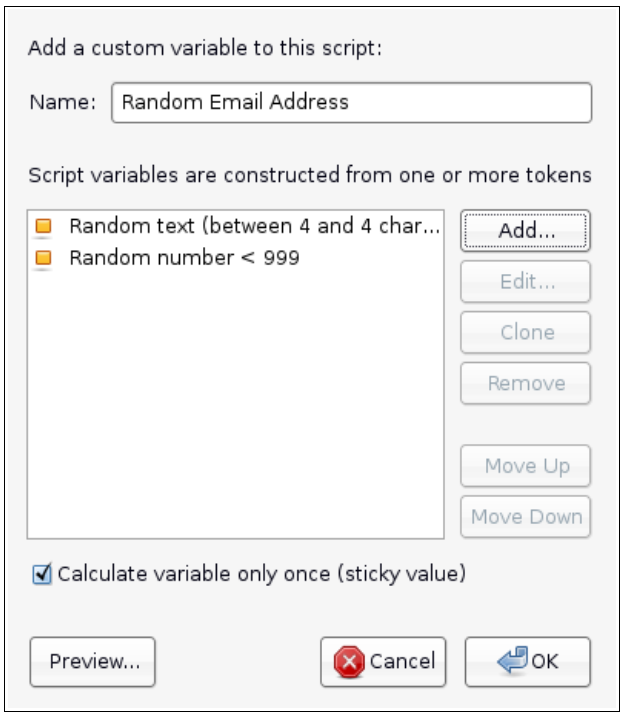
Add the next token, the 3-digit random number. Click **`Add...`** and fill in the Add Token dialog as follows:

1. Select **`Type: Random number`**
2. Enter minimum value 0
3. Enter maximum value 999
4. Leave **`Location ID`** blank

The Add Token dialog box will appear as follows:



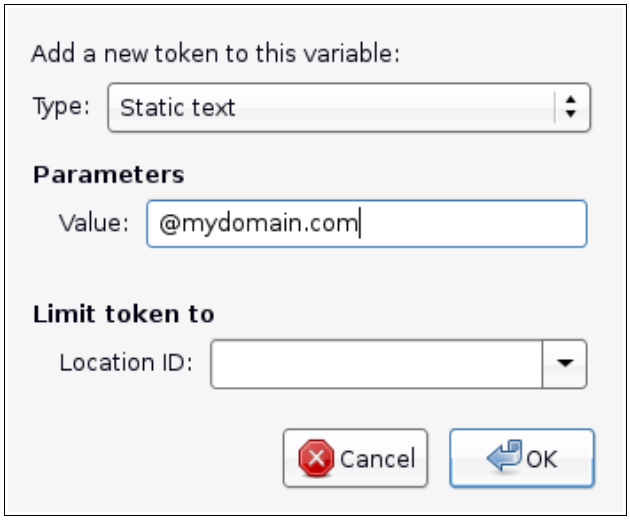
Click **`OK`** to save. The Add Script Variable dialog box will now contain:



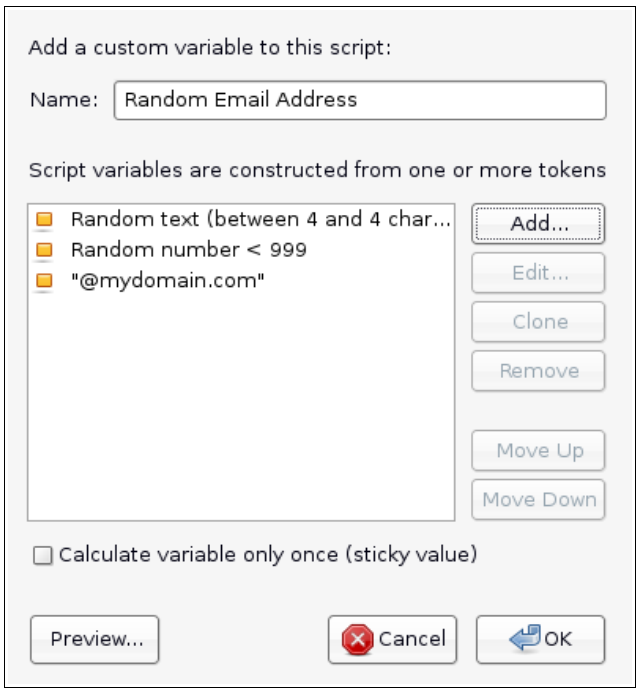
Add the third and final token, a static string `@mydomain.com`. Click **`Add...`** and fill in the Add Token dialog as follows:

1. Select **`Type: Static text`**
2. Enter string `@mydomain.com` in the **`Value:`** field
3. Leave **`Location ID`** blank

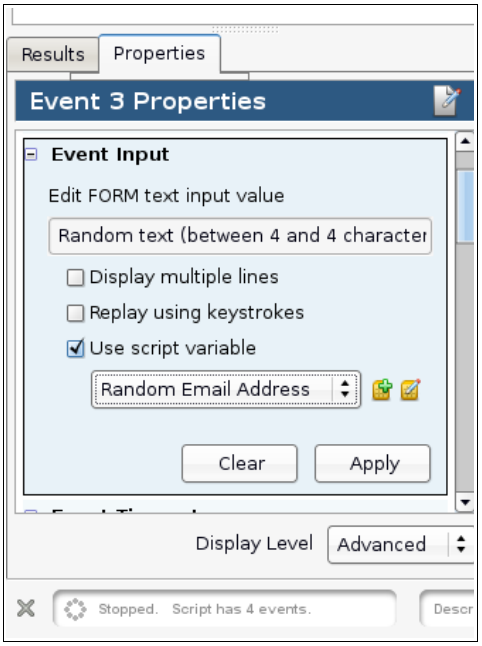
The Add Token dialog box will look like this:



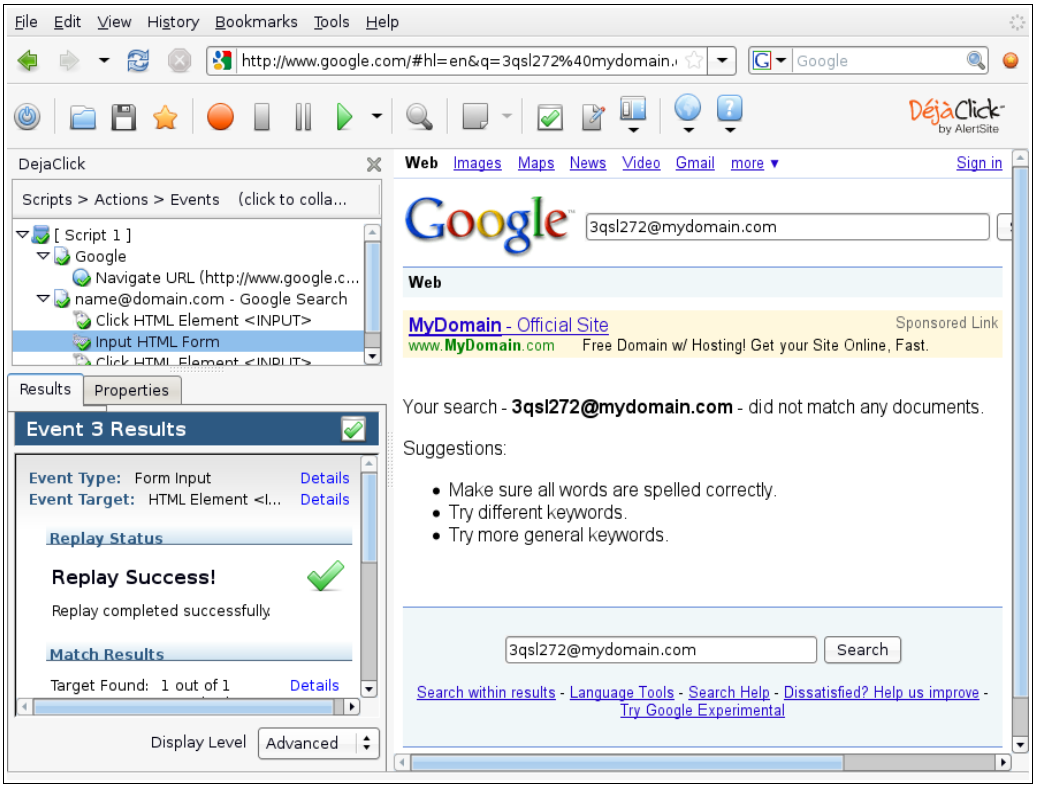
Click **`OK`** to save. The Add Script Variable dialog box will now contain:

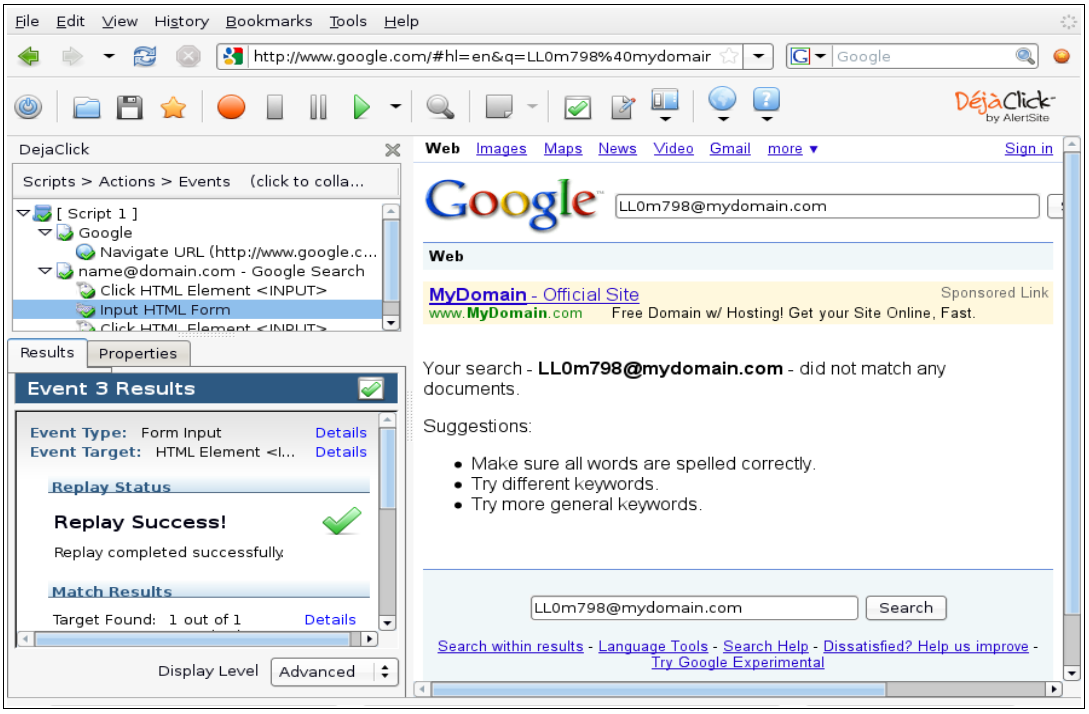


Click the **`Preview...`** button to display a sample of what the variable will look like during replay. Click **`OK`** to complete the script variable construction. The **Event Input** section of the sidebar will now contain:



Make certain to click the **Apply** button to assign the script variable as the event input value. Now you are ready to replay the recording using the randomly generated email addresses in the Google search bar. Each time you replay the recording by clicking  , a new email address will be generated and searched for. Here are a couple of illustrations:





Note the change in email address each time the recording is replayed, created by concatenating the 4-character token, 3-digit token, and static string “@mydomain.com”.

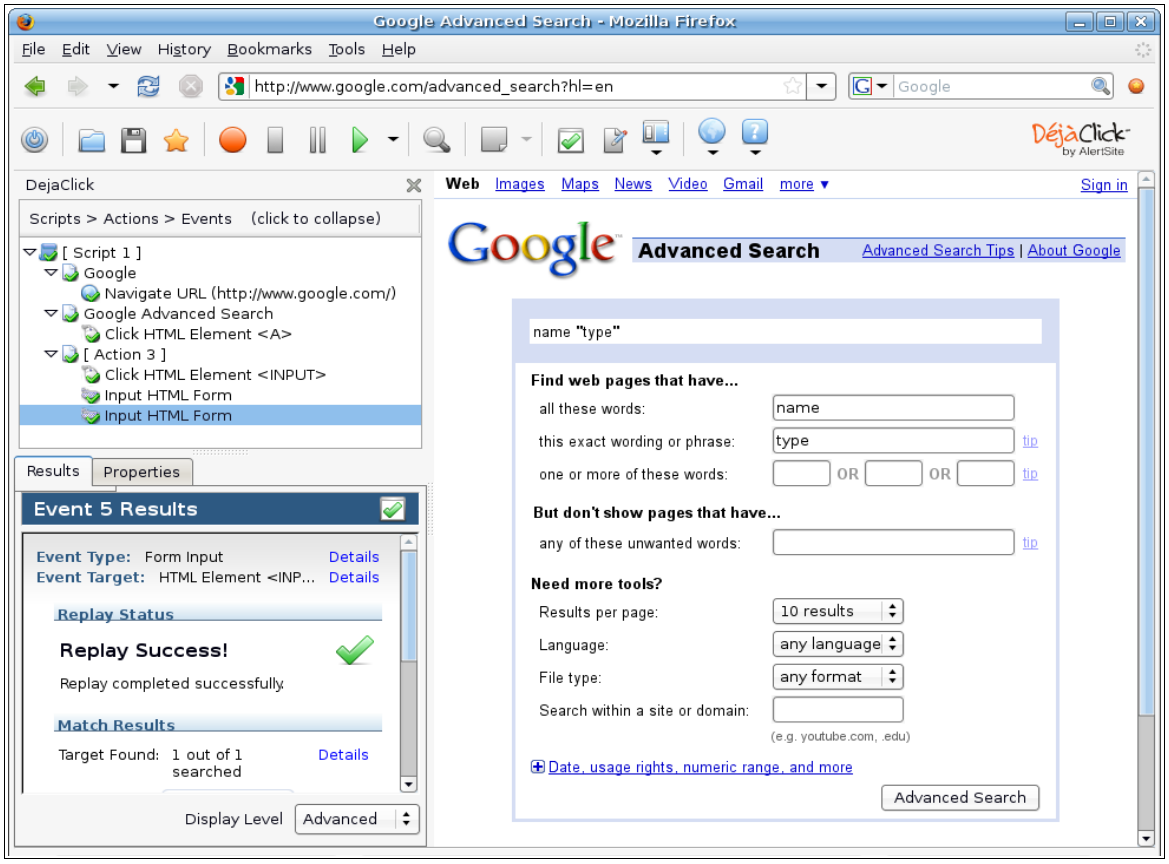
Example 2 - Dataset Script Variable

If your recording includes filling in a form, you can create a file, called a dataset, that contains the information for the form. Script variables can be configured to selectively parse the dataset for the data values to use.

As an example, we will record a few steps that includes an Advanced Search in Google, which displays a multiple field form rather than a simple search box. We arrive at the page below by recording the following actions:

- Start recording
- Enter www.google.com in the address bar and hit <ENTER>
- Click Advanced Search next to the search bar
- Click in the box for “all these words”
- Input “name”
- Tab to the box for “this exact wording or phrase”
- Input “type”
- Tab to the next box
- Stop recording

This set of steps produces the following web page after replay:



The first “Input HTML Form” event in Action 3 of the recording corresponds to the “all these words” field and the second “Input HTML Form” event corresponds to the field for “this exact wording or phrase”.

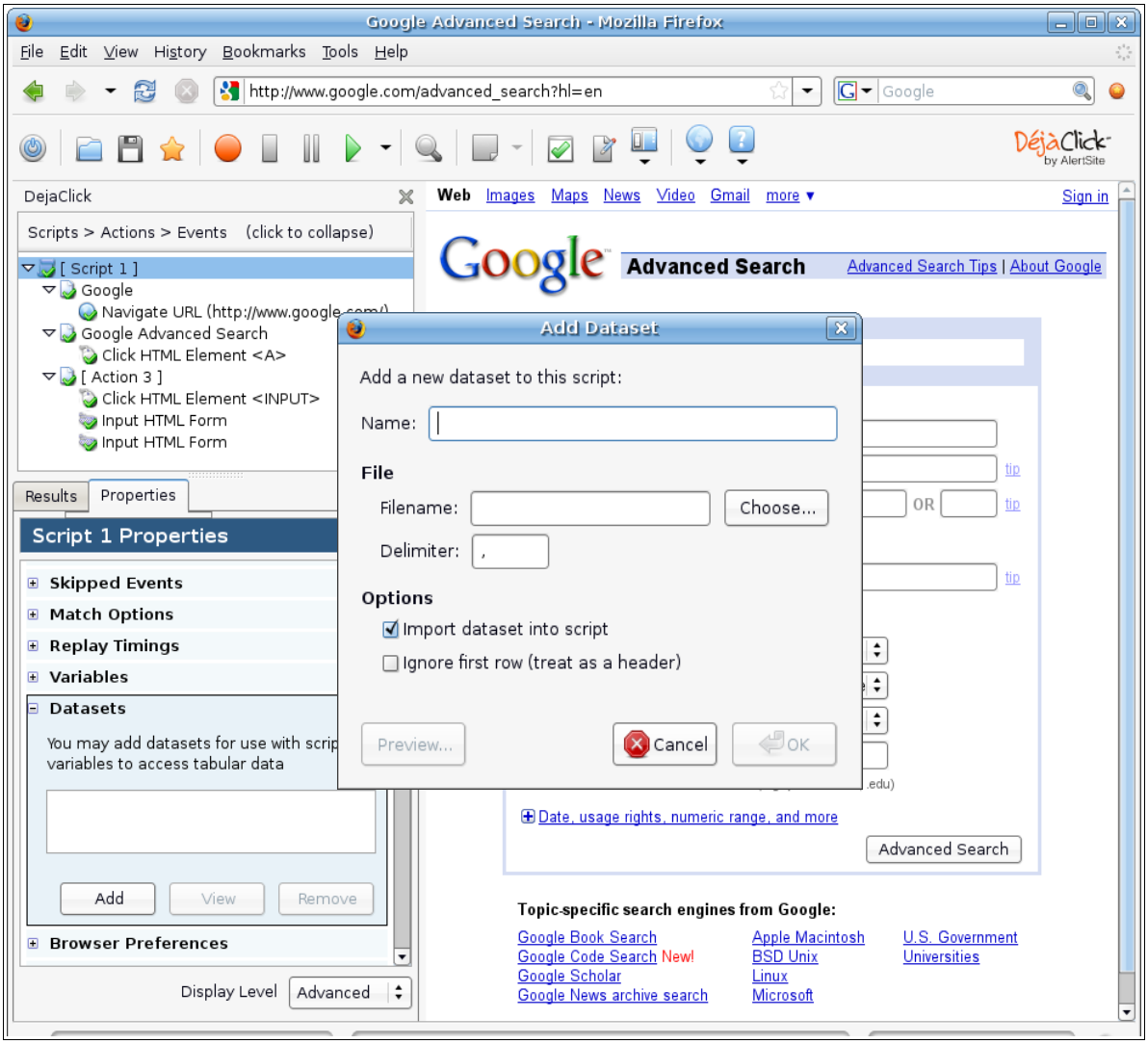
Create a text file with an equal number of comma-separated set of strings on two lines:

horse,tiger,mouse
palomino,white,tiny

For this example, we'll call this text file `dataset1.csv`. The Dataset Script Variable will be configured to rotate through the first row for the first Input HTML event and the second row for the second Input HTML event.

First, let's import our dataset data into the script:

- Click on **`[ Script 1 ]`** in the Script steps section of the sidebar to get to script level
- Click on the **`Properties`** tab in the lower section of the sidebar
- Click on **`Datasets`** (10th down the list of Properties) to expand the item
- Click the **`Add`** button to add dataset information
- Leave the **`Import dataset into script`** option checked

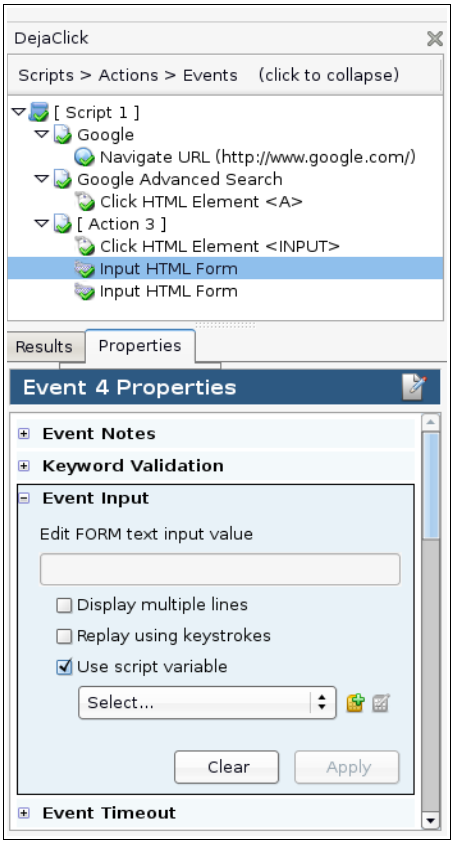


- In the **`Name`** field of the Add Dataset dialog, enter a name for your dataset, e.g., `animals`
- Click **`Choose...`** to select the filename `dataset1.csv` you created above
- Click **`Preview...`** to verify the data looks correct
- Click **`OK`**

The dataset `animals` with the values in `dataset1.csv` is now associated with the script. The next step is to have the two input fields configured to utilize the data in the dataset. So our next step is to create two script variables and assign them to the two input fields.

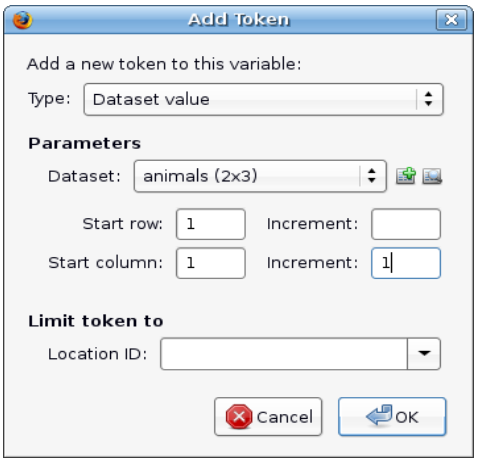
- Click on the first **`Input HTML Form`** line in the script step window at the top of the sidebar
- Click **`Event Input`** in the Properties tab at the bottom of the sidebar to expand the item
- Click the checkbox next to **`Use script variable`**

The sidebar will appear as:



- Click the **`Create a new script variable`** icon to the right of the **`Select...`** dropdown
- Enter a name, e.g., `animal names`, in the **`Name`** field of the Add Script Variable dialog
- Click the **`Add...`** button to add a token
- In the Add Token dialog, select the **`Dataset`** value from the Type dropdown
- **`animals (2x3)`** will already populate the **`Dataset`** parameter field since it was already added at the script level (`2x3` refers to the number of rows and columns in the dataset file)
  Note: You may also add new datasets from within the Add Token dialog box if you desire
- Enter 1 in **`Start row`** and **`Start column`**, since this is the first Input field
- Enter 1 in **`Increment`** next to **`Start column`**

The Add Token dialog will look like this:

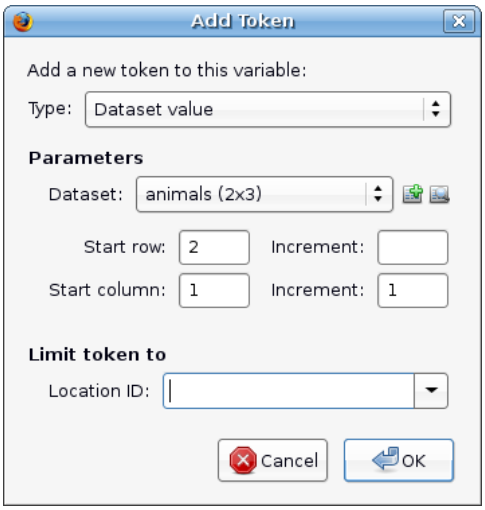


- Click **OK** to add the token to the script variable
- Click **OK** to save the script variable within the script
- Click **Apply** in the Event Input properties to apply the script variable to this input field

To use the dataset input for the second Input HTML Form field, repeat the steps above with the difference being the name of the script variable and start row.

- Click on the second **Input HTML Form** line in the script step window at the top of the sidebar
- Click **Event Input** in the Properties tab at the bottom of the sidebar to expand the item if necessary
- Click the checkbox next to **Use script variable**
- Click the **Create a new script variable** icon to the right of the **Select...** dropdown
- Enter a name, e.g., `attributes`, in the **Name** field of the Add Script Variable dialog
- Click the **Add...** button to add a token
- In the Add Token dialog, select **Dataset** value from the Type dropdown (**animals (2x3)** will already appear in the **Dataset** parameter field)
- Enter 2 in **Start row**, since the second Input field is for the second row in the dataset file
- Enter 1 in **Start column**
- Enter 1 in **Increment** next to **Start column**

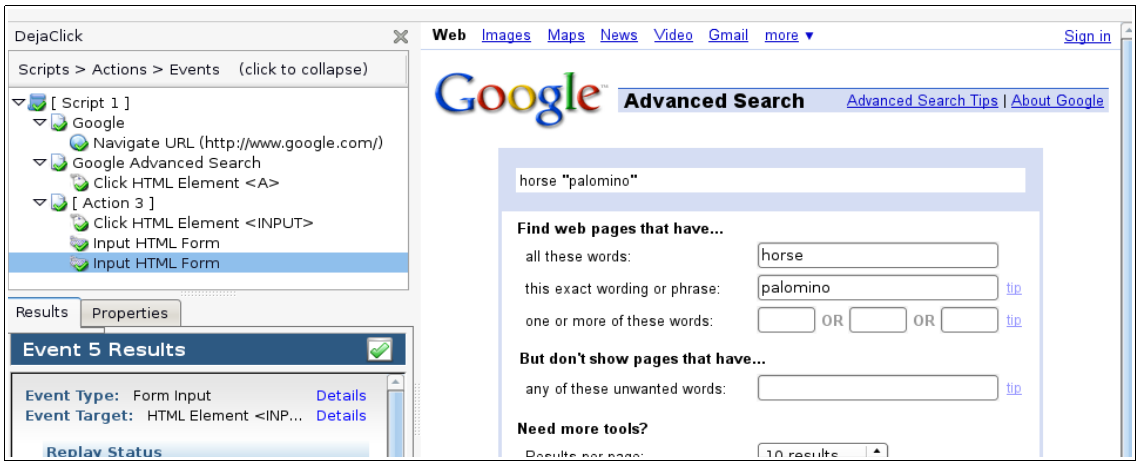
The Add Token dialog will look like:



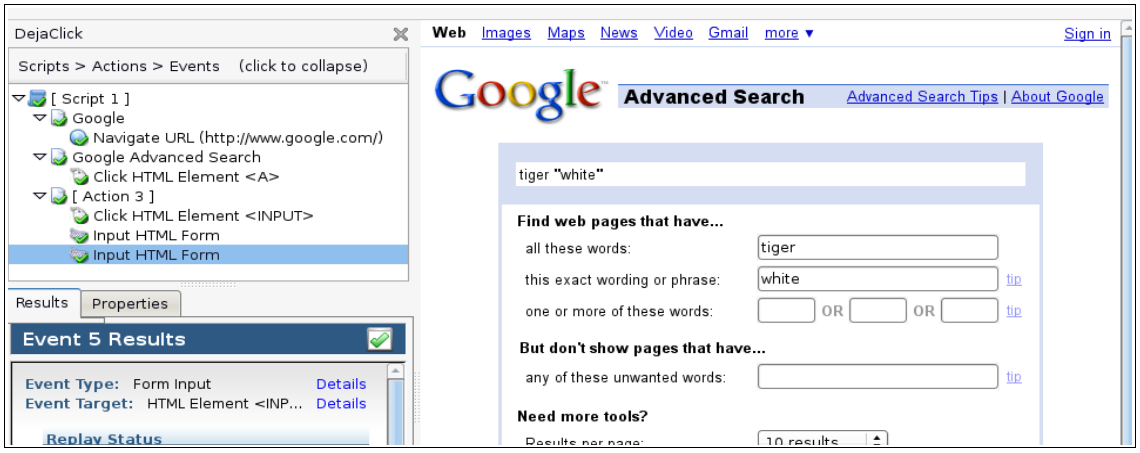
- Click **OK** to add this token to the script variable
- Click **OK** to save the script variable within the script
- Click **Apply** in the Event Input properties to apply the script variable to this input field

You are now ready to replay the recording using the dataset values as input. Replay the recording 3 times, and you will see the two input fields change tokens automatically, as shown below:

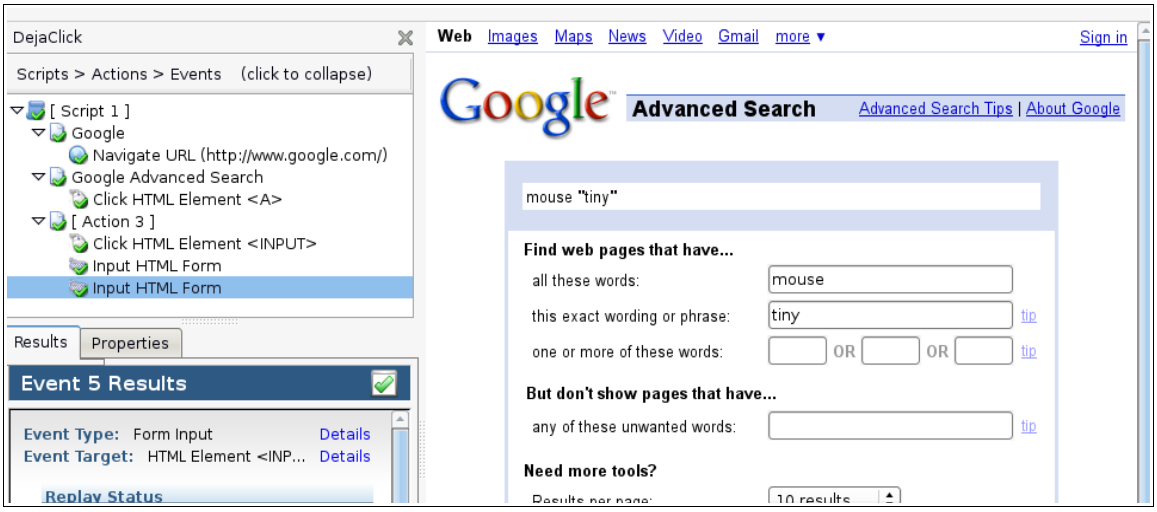
First replay:



Second replay:



Third replay:



To start with the initial set of tokens (`horse, palomino`), reset the current replay count as follows (this is entirely optional):

- Click on the **`Configure Options`** icon  in the DéjàClick toolbar
- Select **`Configure Settings`**
- Click on the **`Replay Properties`** tab
- Click **`Reset`** on the **`Variable Options`** line

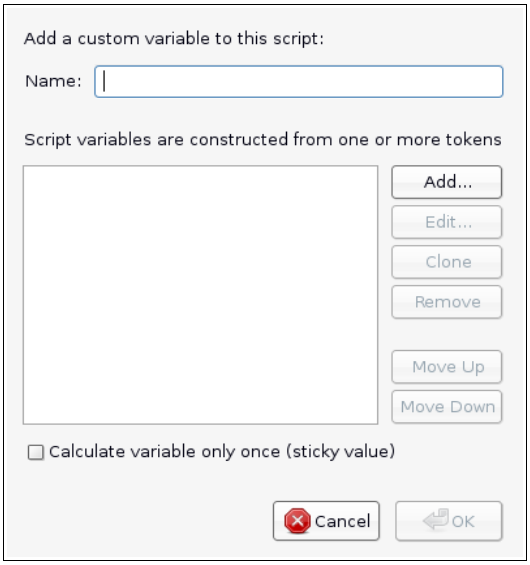
Example 3 – Script Variable as a Keyword

Under certain circumstances, your web page may render differently from one location to another. For example, say you monitor from Los Angeles (Location ID 42), NY (Location ID 70), and London (Location ID 5010), and your page has the title “Labor Relations”, which you want to keyword. However, when the page is tested in London, the title becomes “Labour Relations” because your hosting server detects that it's a UK location and renders the same content but with UK spellings. You can set up a script variable to select a different keyword when it's tested on the London monitoring station.

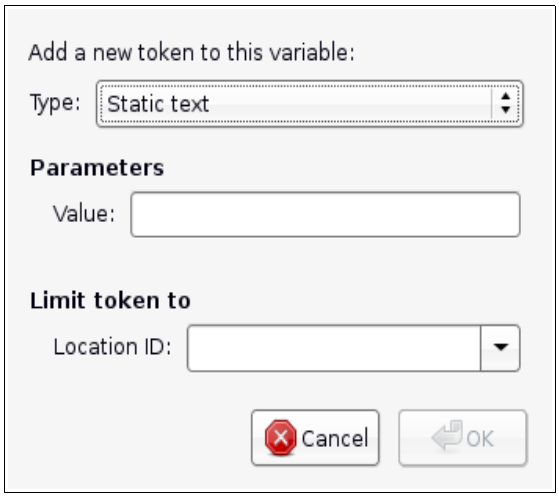
➔ **Note:** Location IDs are found in the Console Help dialog screen under **Monitoring Locations**.

After recording your script, do the following:

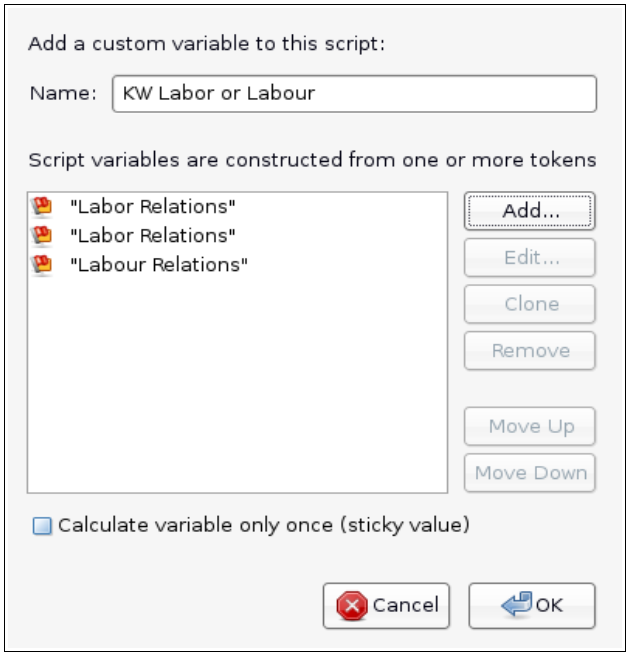
- Click on the script name in the sidebar to get to script level
- Click the '+' next to **Variables** in the Properties tab to open
- Click **`Add`** to open the **Add Script Variable** dialog box



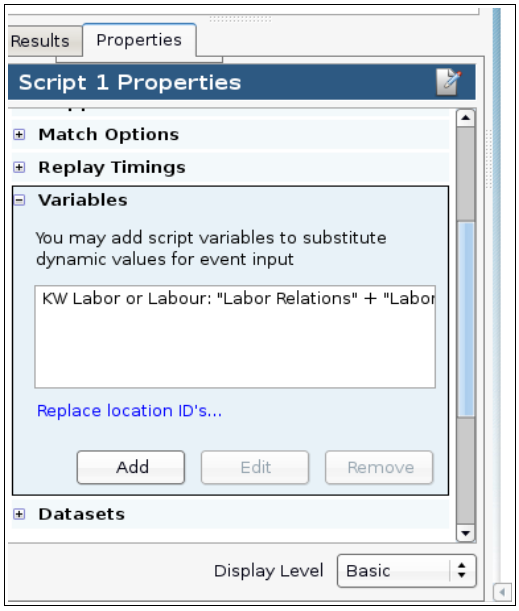
- Enter a name for the variable, e.g., `KW Labor or Labour`
- Click the **`Add...`** button to bring up the **Add Token** dialog box:



- Leave the default **Type** Static text
- In the **Parameters** field, enter the keyword `Labor Relations`
- In the **`Location ID:`** box in the **Limit token to** field, enter **42** for Los Angeles
- Click **OK** to add the token.
- Click **`Add...`** again in the **Add Script Variable** dialog and add another `Labor Relations` static token, but enter **70** in the **`Location ID:`** box for New York, then click **OK** to add the token
- Click **`Add...`** one more time to create our third static token, but this time enter `Labour Relations` in the **Parameter** field, and **5010** for London in the **`Location ID:`** box, then click OK.
- The **Add Script Variable** dialog will contain:

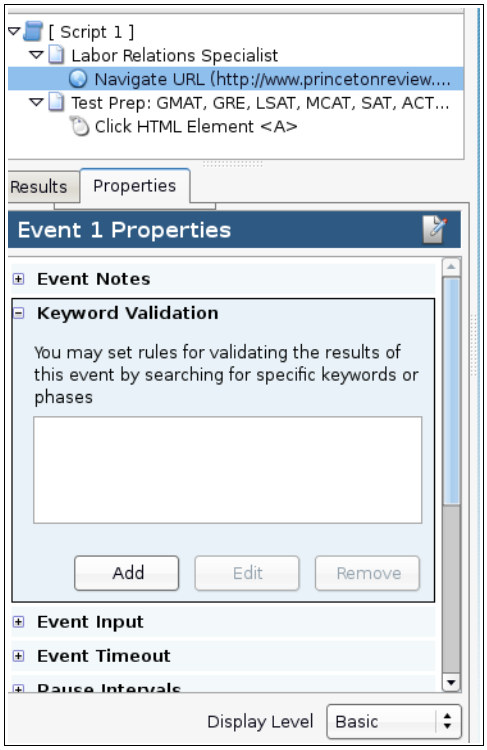


- Click **OK** to add the variable. The script sidebar will contain the new script-level variable:

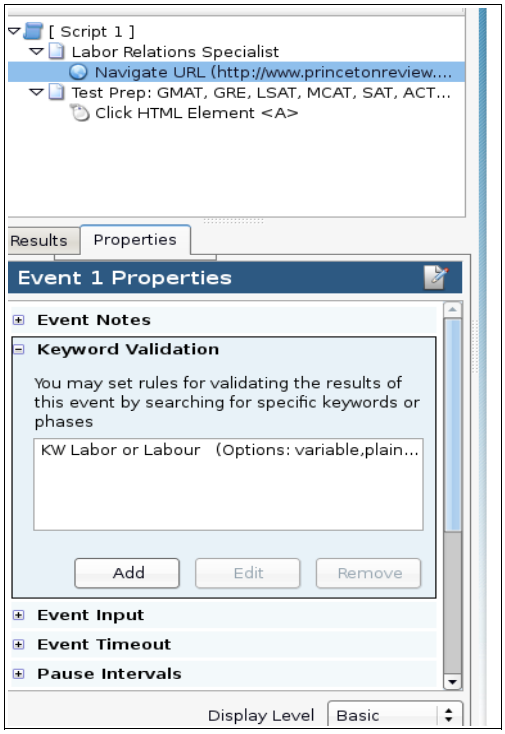


Next, let's create our Keyword Validation. Keywords may be added to either **Actions** or **Events**. In this example, let's add our keyword to the first event.

- Highlight the event (**`Navigate URL`** in the **`Labor Relations Specialist`** action in this example)



- Click **Keyword Validation** in the Properties tab to expand the property panel
- Click **`Add`** to open the **Add Keyword Validation** dialog box
- Check the box next to **Use variable:** and in the **Select...** dropdown, choose `KW Labor or Labour`
- Click **OK** to add the script variable Keyword Validation



Subsequent replay will succeed with keyword `Labor Relations` when monitored from LA or NY, and with `Labour Relations` when monitored from London.

Example 4 – Location-Limited Tokens

One monitoring strategy may be to populate your web form with different strings when monitoring at different locations. For this example, we'll use the Google Search script from Example 1. We'll construct a script variable using tokens that are limited by our 3 monitoring locations, Los Angeles (42), New York (70), and London (5010).

For illustration purposes, our script variable will be created with 5 static string tokens:

ABC
DEF
GHI
JKL
MNO

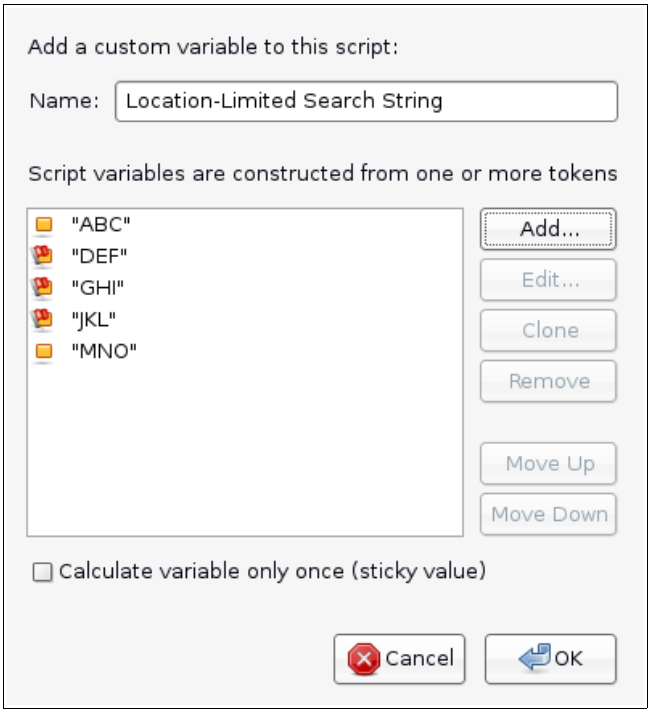
String `DEF` will be limited to Los Angeles, `GHI` will be limited to New York, and `JKL` limited to London. Strings `ABC` and `MNO` will not be limited to a specific monitoring station. As such, the search strings you will see in the Google Search box are:

Location (ID)	Search String
Los Angeles (42)	ABCDEFMNO
New York (70)	ABCGHIMNO
London (5010)	ABCJKLMNO

First, create a Script Variable called Location-Limited Search String and add 5 tokens:

- From the Script Level, click **Variables** to expand the property panel, then click **Add**
- In the **Add Script Variables** dialog, enter the Script Variable name and click **Add**
- Leave **Type** as **Static text**, enter `ABC` in the **Parameters** `Value:` field, and leave the `Location ID:` field blank, then click **OK**
- Click **Add** again, leave as **Static text**, enter `Value: DEF`, enter `Location ID:` **42**, then click **OK**
- Click **Add**, leave as **Static text**, enter `Value: GHI`, enter `Location ID:` **70**, then click **OK**
- Click **Add**, leave as **Static text**, enter `Value: JKL`, enter `Location ID:` **5010**, then click **OK**
- Click **Add**, leave as **Static text**, enter `Value: MNO`, leave the `Location ID:` blank, then click **OK**

The Add Script Variable dialog will look like:



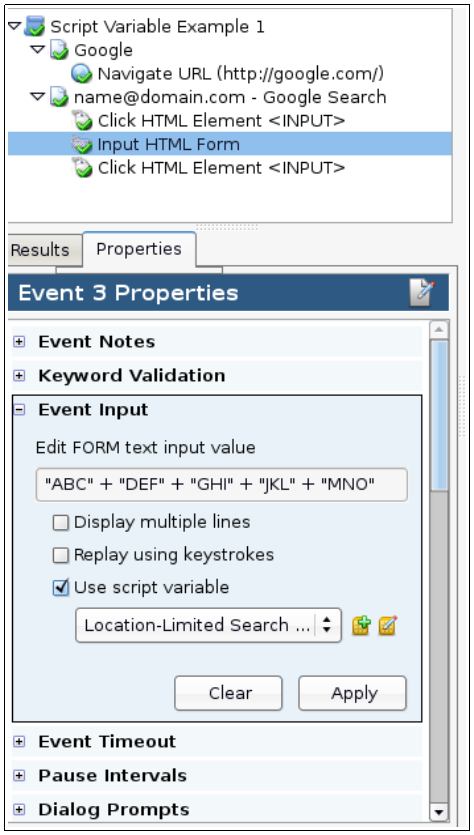
Note the icon to the left of each token. The Location Limited token icons have a red "flag" indicator.

- Click **OK** to add the variable. The script sidebar will contain the new script-level variable `Location-Limited Search String`.

The next step is to set the **Event Input** to use the script variable.

- Click on the **Input HTML Form** event in the Scripts section of the sidebar
- In the script **Properties** tab, click **Event Input** to expand the property panel
- Check the box next to **`use script variable`**
- Select `Location-Limited Search String` from the dropdown and click **`Apply`**

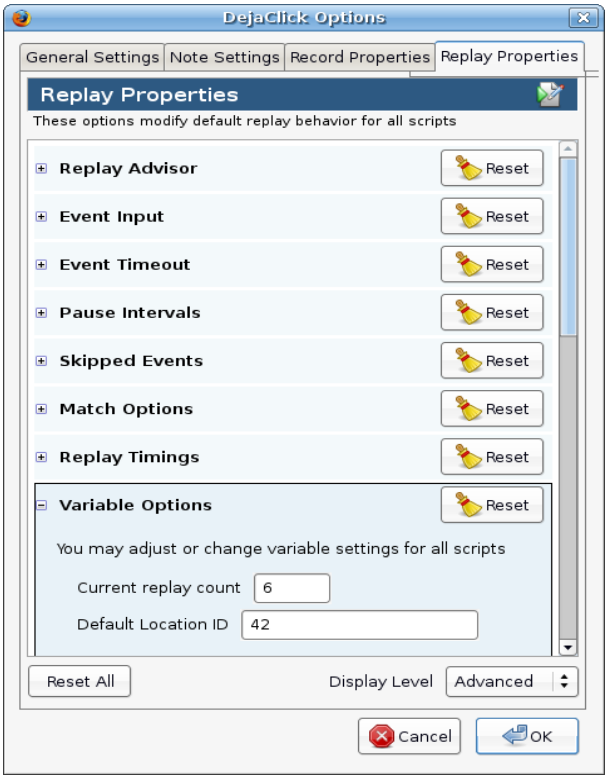
The sidebar will appear as:



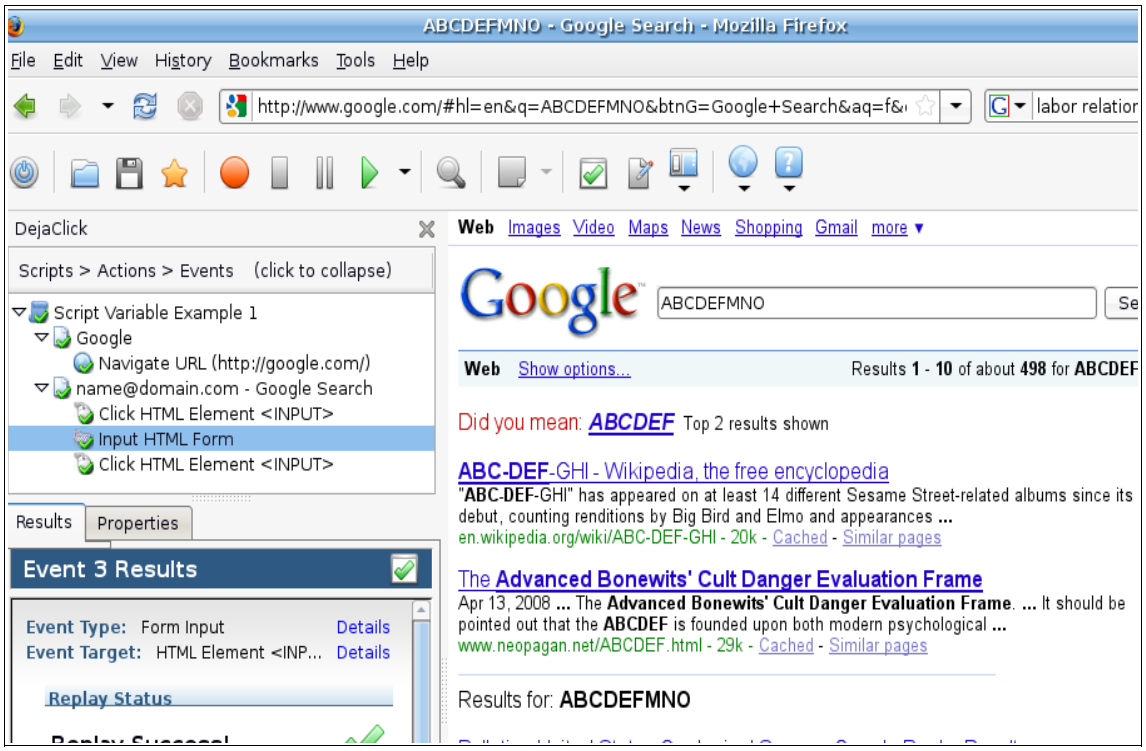
The script will produce different searches using the different search strings based on the monitoring location. We can simulate running from different locations from the configuration options.

- Click on the **`Configure Options`** icon 
- Click on the **`Replay Properties`** tab
- Click **`Variable Options`** to expand the property panel
- Change the **`Display Level`** to **Advanced**
- In the Default Location ID box, enter the desired Location ID (42 for LA, 70 for NY, 5010 for London)
- Click **`OK`** to save

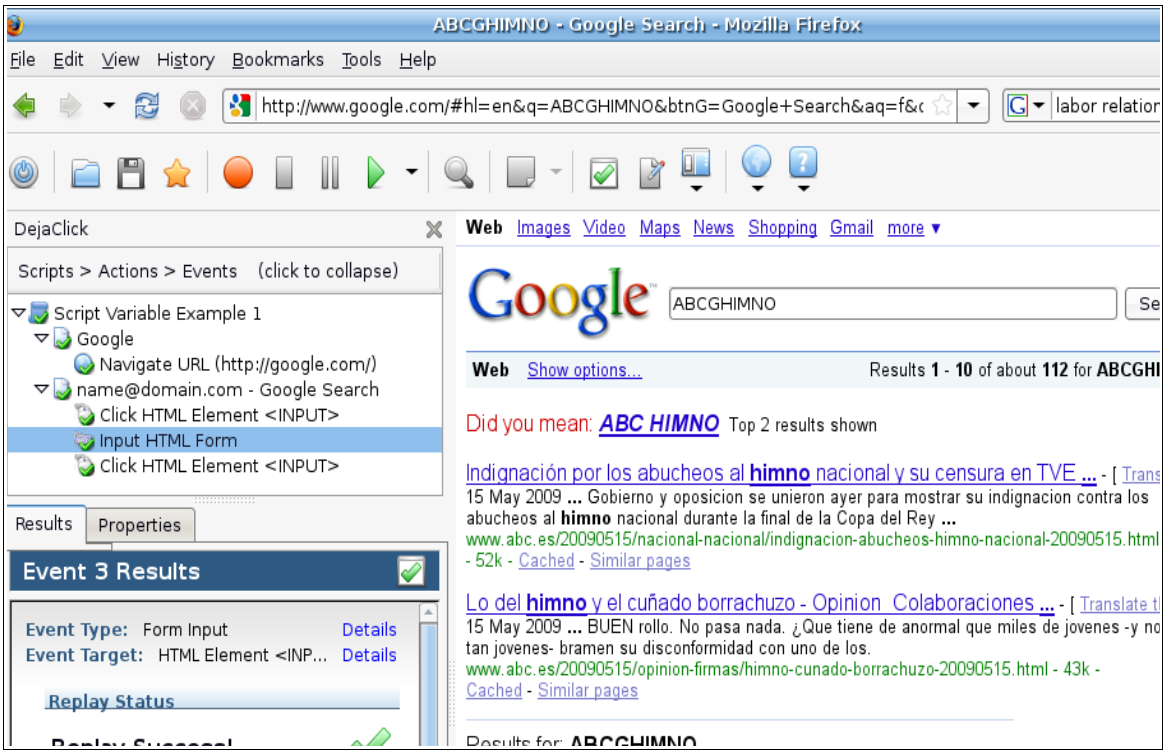
The DéjàClick Options dialog will look like this:



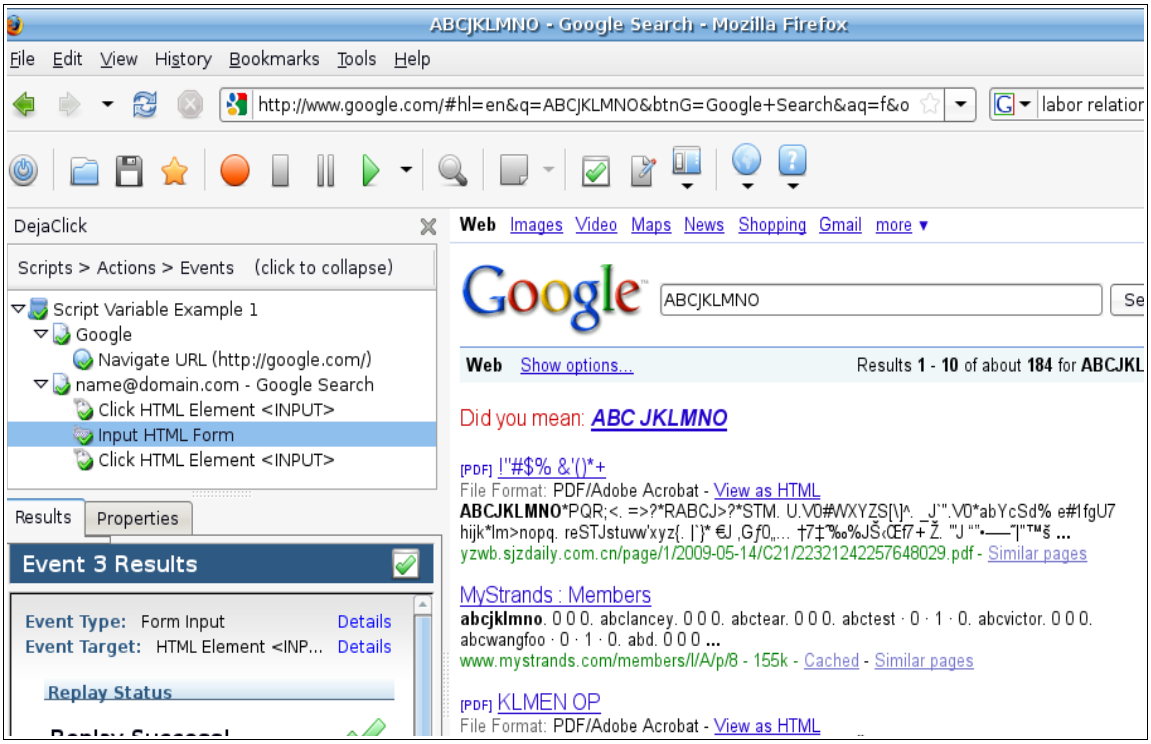
After changing the Default Location ID to **42**, replay the script to produce:



Change the Default Location ID to **70**, and the replay will display:



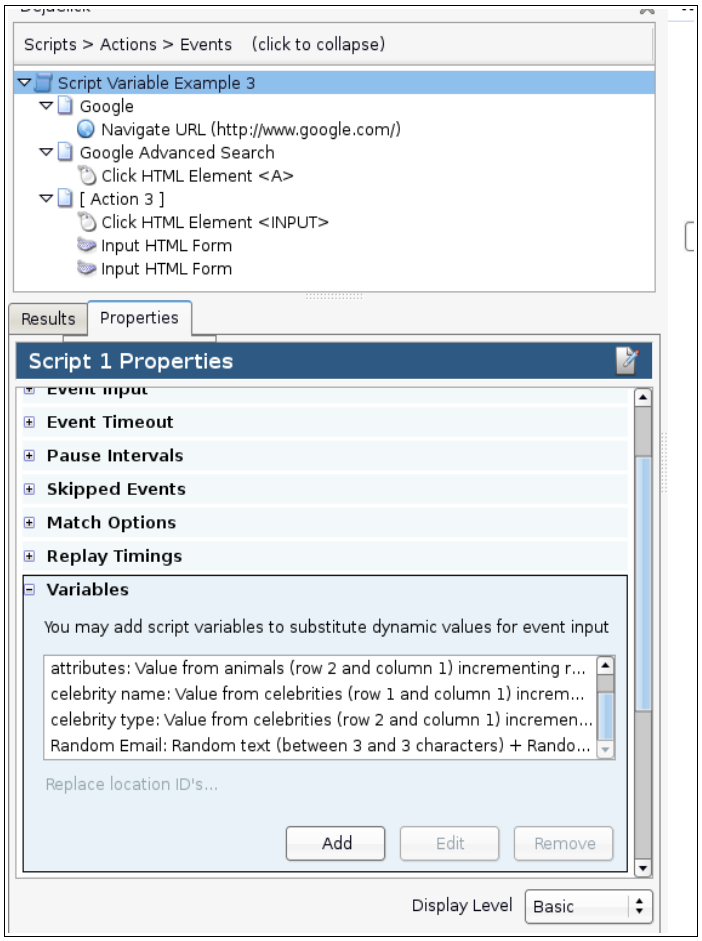
Change the Default Location ID to **5010**, and the replay will show:



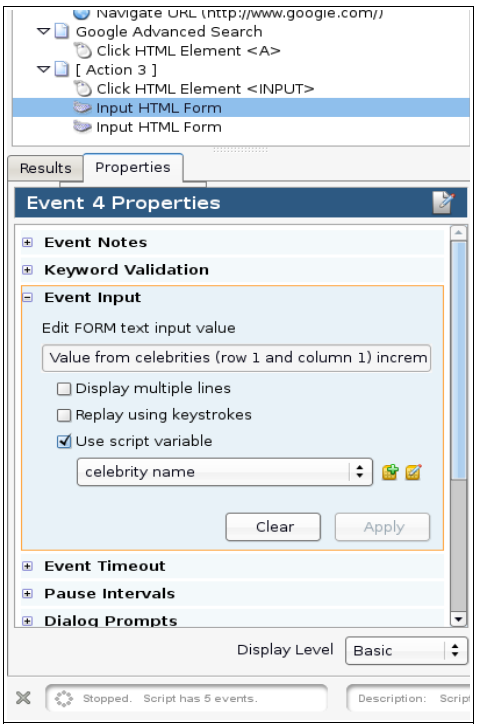
Additional Information

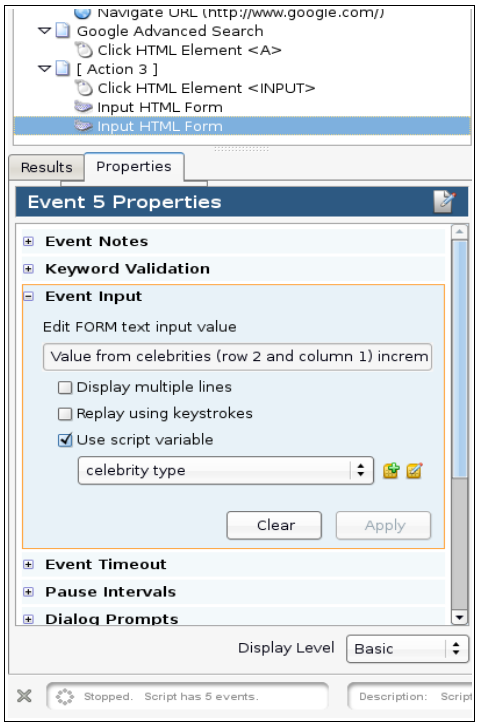
Reusability

Script variables and datasets, once created, may be reused in different parts of the recording by assigning them to additional input values or keywords. For example, here is a list of several script variables that were created:



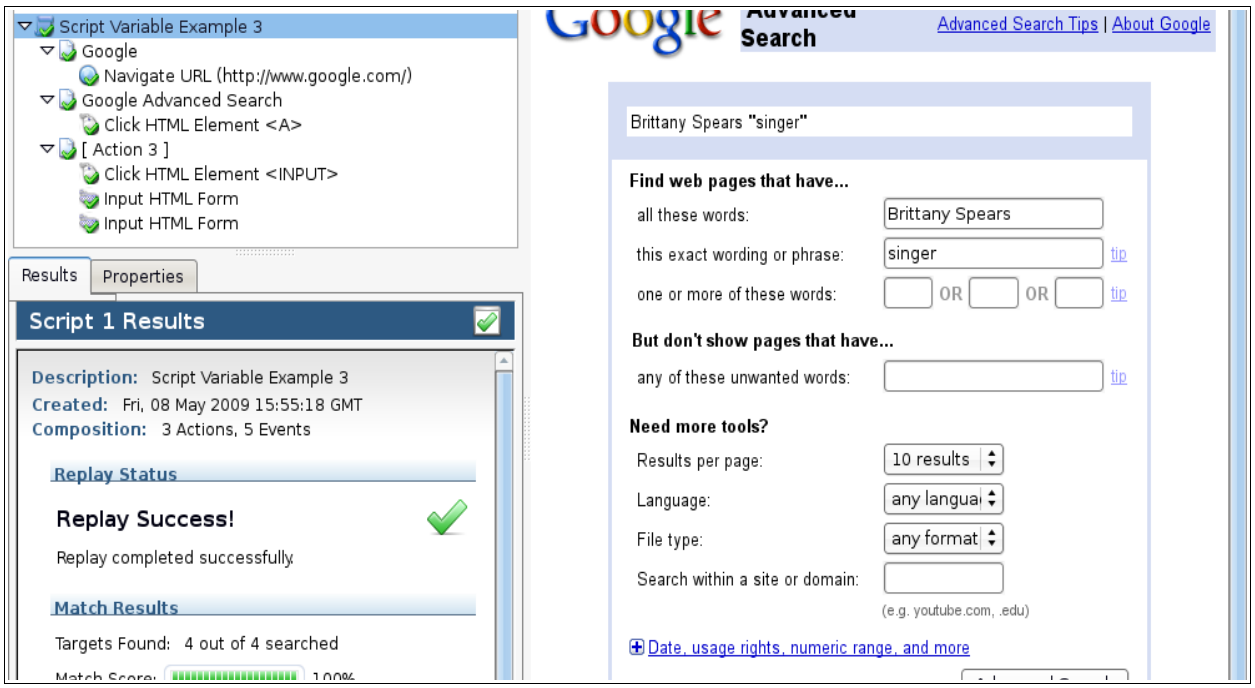
Say you want to use a different set of variables for the HTML input in Example 2, for instance, changing from animal names and attributes to celebrity names and types. Simply click on the two `Input HTML Form` lines in `Action 3` and select the new variables from the drop-down list, as follows:



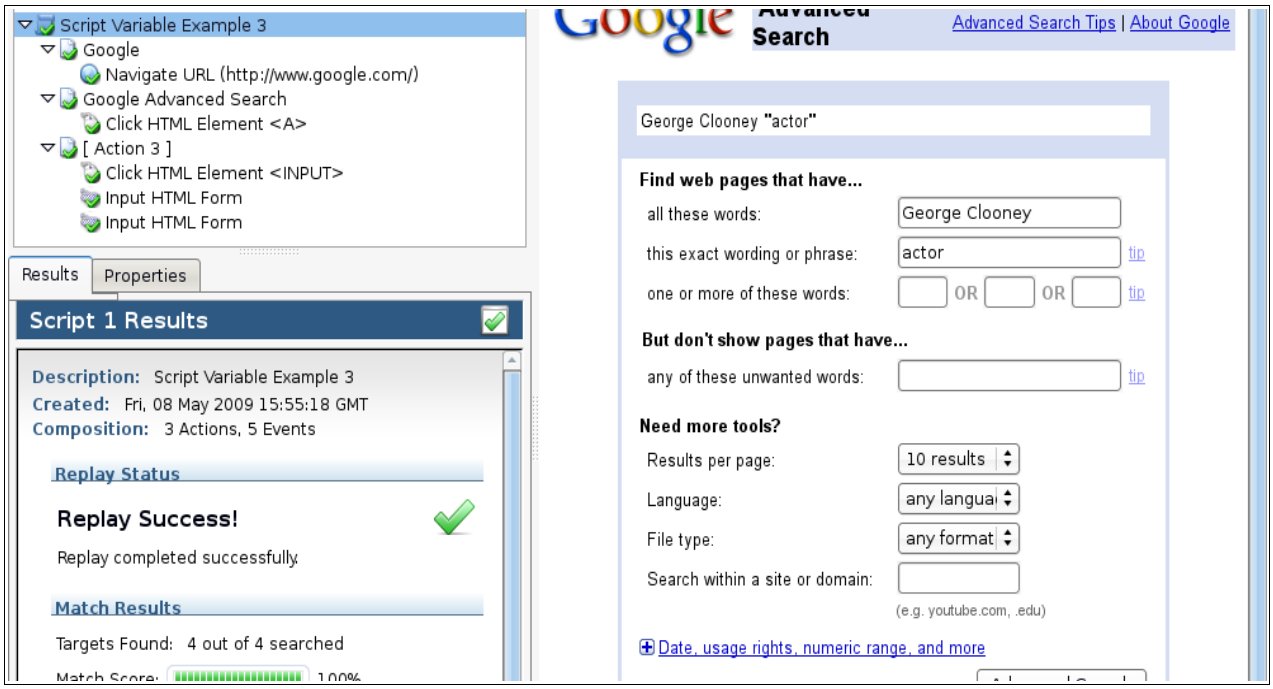


The result of the next 3 replays will display:

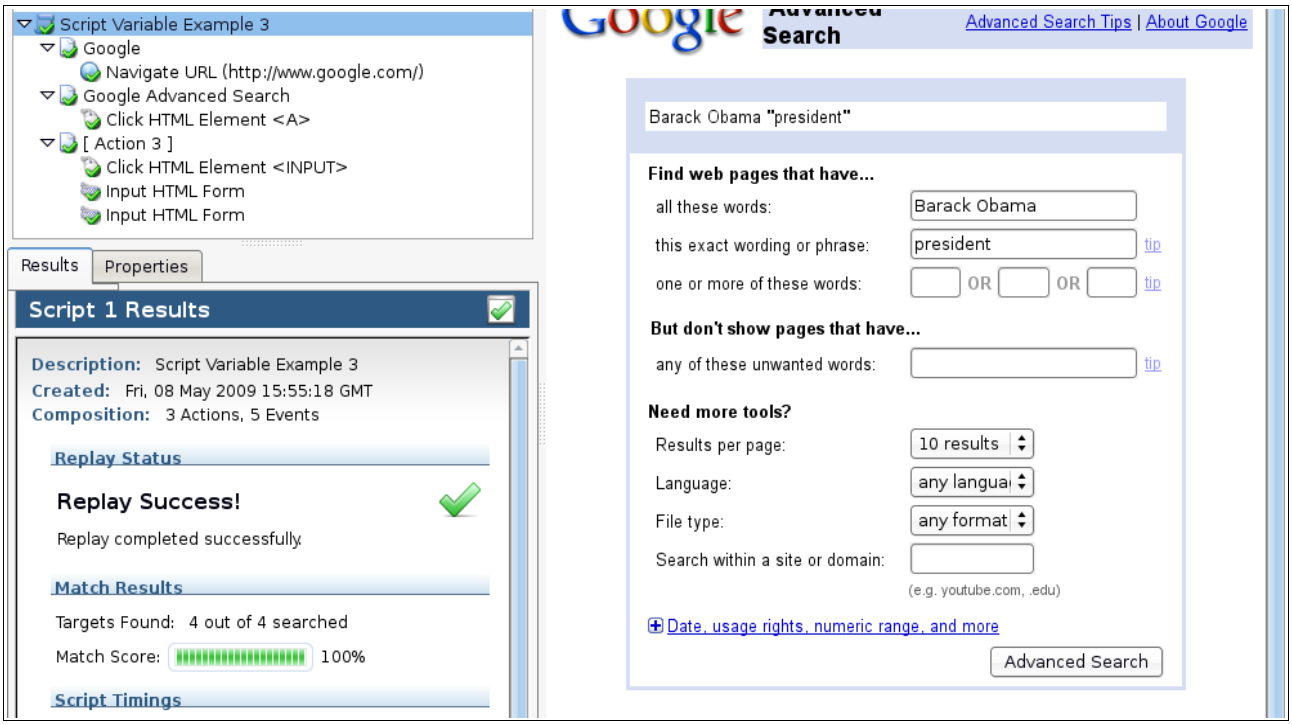
Replay 1:



Replay 2:



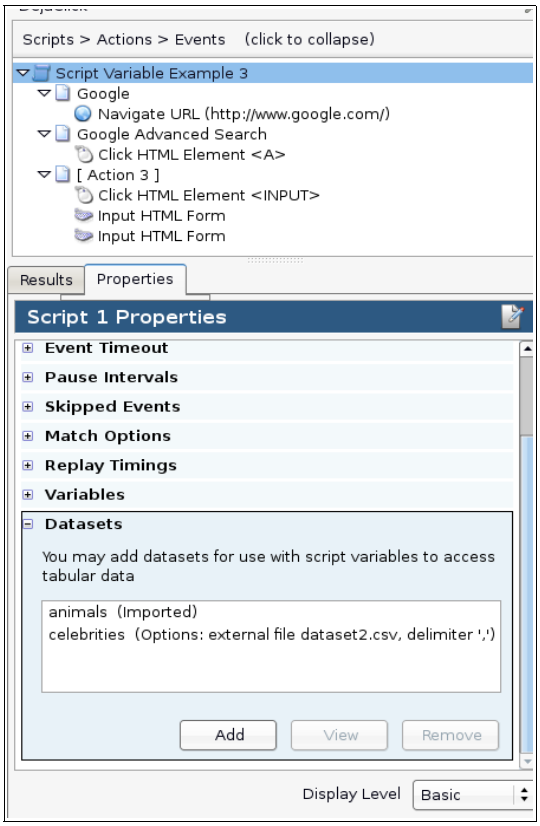
Replay 3:



Imported vs. External Datasets

There are two flavors of Datasets: Imported and External File. All external dataset files must be in the DéjàClick `datasets` subfolder. You'll need to copy any external datasets to this folder prior to replay. By default, the folder is located in your Firefox profile folder under the `dejaclick` directory, but may be changed via the **DéjàClick Options->General Settings** tab.

Here is the Properties sidebar description of the two different types looks like at the Script Level:



In the above list of datasets, the “animals” dataset was imported directly into the script. Its referenced values will remain static and any changes to the original source file will not affect subsequent script replays. Conversely, the “celebrities” dataset references an external file. Thus, if the file is ever modified, any referenced values that are updated will use the new values during subsequent script replays.

Customer Support

For questions or technical support, contact:

Email: CustomerCare@alertsite.com
Phone: 954-312-0188
Toll-free: 877-302-5378
FAX: 954-312-0186