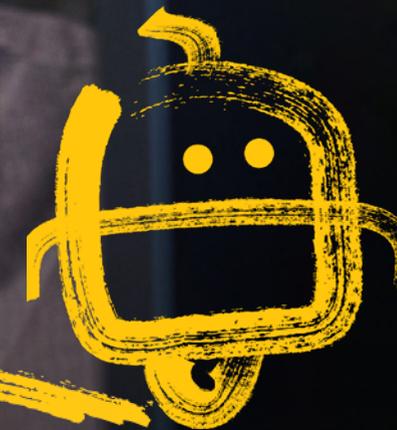


How to Build Your First Robot

INSTRUCTION GUIDE

Work Like Tomorrow



KOFAX

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HOW TO MAKE THE MOST OF THIS TUTORIAL SERIES

You may approach this tutorial in one of **THREE WAYS**:

METHOD 1: LEAVE IT TO US – Starting with the first module, simply click on the desired module in the series starting with Module 1, sit back, and watch as we describe the process of building a simple robot as we perform each step.

METHOD 2: FOLLOW ALONG AND DO AS WE DO – Starting with the first module, play each module and pause following each step that is completed to duplicate the step on your computer.

Note: you may have to do a little rewinding to recall the exact step, or you can refer to the step using these instructions.

METHOD 3: WATCH THEN DO – Watch one complete module, then step through the provided instructions and complete each step for that module. Continue on to complete each of the remaining modules.

Thanks for your interest in our Kofax Robotic Process Automation (RPA) product, **Kofax RPA™**. This brief yet informative tutorial series is designed to lead you step-by-step through the process of building a simple but useful software robot in just under an hour.



PART 1: Installing and Licensing Kofax RPA

In this tutorial segment, we will show you how to **install and license** Kofax RPA 10.4.0.0. Feel free to follow along.

PREPARATION

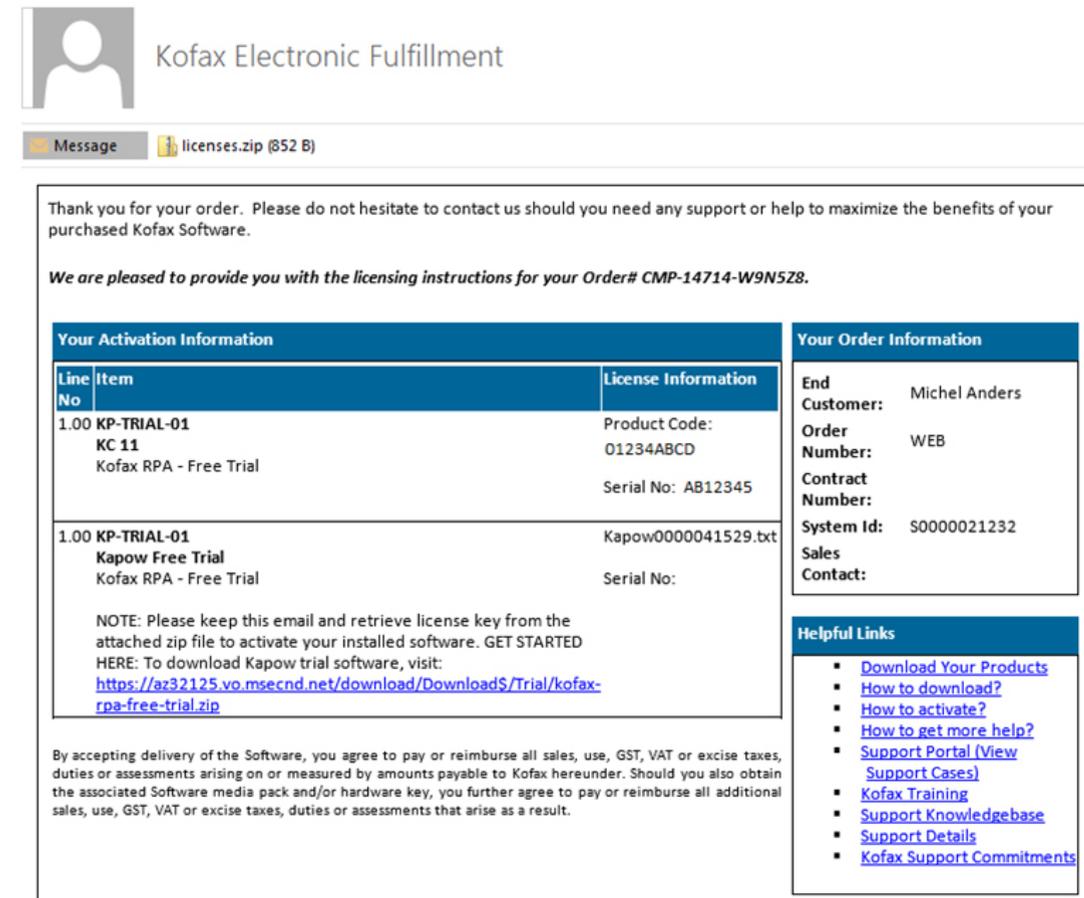
When you requested your evaluation copy of Kofax RPA, you received a **confirmation e-mail** from **Kofax Electronic Fulfillment**.

This e-mail contains important information.

- A.** It has an attachment with the evaluation license for Kofax RPA. You should **save this file** to the machine where you want to install the software.
- B.** In the body of the e-mail there is also a **product code** and a **serial number**. Keep this information at hand during installation, because it is needed to activate the Document Transformation Server.
- C.** And finally, there is a **link to the software**. Click the link to download the installation software and save the **.zip file** to the machine where you want to install the software.

Now you are ready for the actual installation.

Before beginning, you should have already downloaded the installation software. In order for you to install the software properly, you must be an **Administrator on your local computer**.



Message licenses.zip (852 B)

Thank you for your order. Please do not hesitate to contact us should you need any support or help to maximize the benefits of your purchased Kofax Software.

We are pleased to provide you with the licensing instructions for your Order# CMP-14714-W9N5Z8.

Your Activation Information		Your Order Information
Line No	Item	License Information
1.00	KP-TRIAL-01 KC 11 Kofax RPA - Free Trial	Product Code: 01234ABCD Serial No: AB12345
1.00	KP-TRIAL-01 Kapow Free Trial Kofax RPA - Free Trial	Kapow0000041529.txt Serial No:

NOTE: Please keep this email and retrieve license key from the attached zip file to activate your installed software. GET STARTED
HERE: To download Kapow trial software, visit:
[https://az32125.vo.msecnd.net/download/Download\\$/Trial/kofax-rpa-free-trial.zip](https://az32125.vo.msecnd.net/download/Download$/Trial/kofax-rpa-free-trial.zip)

By accepting delivery of the Software, you agree to pay or reimburse all sales, use, GST, VAT or excise taxes, duties or assessments arising on or measured by amounts payable to Kofax hereunder. Should you also obtain the associated Software media pack and/or hardware key, you further agree to pay or reimburse all additional sales, use, GST, VAT or excise taxes, duties or assessments that arise as a result.

Helpful Links

- Download Your Products
- How to download?
- How to activate?
- How to get more help?
- Support Portal (View Support Cases)
- Kofax Training
- Support Knowledgebase
- Support Details
- Kofax Support Commitments

Example confirmation e-mail from Kofax Electronic Fulfillment

PART 1: Installing and Licensing Kofax RPA

INSTALL THE SOFTWARE

STEP 1. Extract the archive with the Kofax RPA software that you downloaded in the preparation step. It contains several installation files and a file called **setup.exe**.

STEP 2. To start, **double click** on the **setup.exe** file to start the installation process. You will be guided through several stages.

STEP 3. Click [**Install**] in the **Welcome dialog** and allow the app to make changes. The first components to install are the actual RPA components. Click [**Next**] in the dialog and accept the license agreement. Click [**Typical**] and then [**Install**].

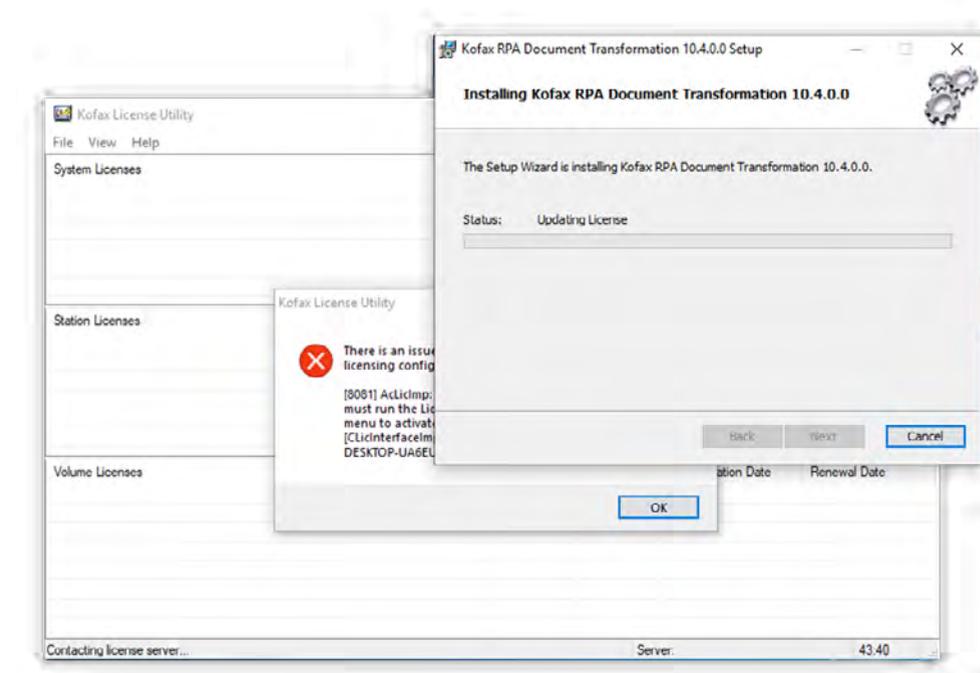
If you have User Account Control enabled in your version of Windows you might be prompted to accept changes to your machines, in which case you can click [**Yes**].

Installation will take several seconds, after which you can click [**Finish**]

STEP 4. The next step is to install the Document Transformation services. Again click [**Next**] in the dialog and accept the license agreement. In the custom Setup dialog you can accept all the defaults and just click [**Next**] and then Install in the dialog that follows.

This will take a while and near the end you will be required to provide the **product key** and **serial number** you received in the body of your confirmation e-mail.

When the step *'updating License'* is reached, a new Kofax License Utility window is opened behind the setup dialog and the process may seem to stop but this is because another dialog is hidden. If you move the setup dialog out of the way, you'll discover another dialog with a warning message. See image below.



PART 1:

Installing and Licensing Kofax RPA

You can click [OK] and then select **File** -> **Activate** from the **Menu** inside the **Kofax License Utility window**. In the dialog that opens, make sure **Software** is selected and enter the **Serial Number** and **Product Key**.

If you are not fast enough the warning may pop up again in which case you can just click [OK].

Click on [Automatic] and the licenses will be filled in.

You can now close this window and click [Finish] in the installation dialog.

STEP 5. The final step is the installation of the Desktop Automation service. Again click [Next] and accept the license agreement.

Then click [Next] to accept the default installation folder finally click [Install]. After the installation is done you can click [Finish] and then **Close**.

You now have installed everything that you need to **build robots**. The software components can be found in several program groups, all starting with 'Kofax'. The most important program group is called **Kofax RPA 10.4.0.0 x64** although in your case the version number might be slightly different.

LICENSE THE SOFTWARE

ONCE THE SOFTWARE IS INSTALLED, IT WILL NEED TO BE PROPERLY LICENSED.

STEP 1. Using your **Windows Start Menu**, go to the Kofax RPA program group and click on [Start Management Console]. This launches RoboServer and then the Management Console in a command window.



IMPORTANT:

You'll need to wait a few minutes while the console launches. You'll know it's ready when you see the message "**Starting Management Console...HTTP Connector started on port 50080**" or "**Successfully activated.**"

You may see some errors or warnings reported along the way. This is normal and they can be ignored.

At this point you may minimize the window, but **you must not close the Management Console window**. If you do, you will not be able to run the Management Console or Design Studio without restarting it.

PART 1:

Installing and Licensing Kofax RPA

STEP 2. In the Kofax RPA program group, click on **[Management Console]**. You will be prompted for license information.

Enter the information *exactly* as provided to you in your Trial License (the one you received as an attachment to the confirmation e-mail). The Management Console will open in your web browser.

STEP 3. Once you have successfully licensed Kofax RPA, you may close the Management Console in your web browser (but *not* the command window in which you started it).

STEP 4. In the Kofax RPA program group, click on the **Design Studio** icon. Again, there is a licensing screen. In the list box the **Trial License** value has been selected. Enter the information provided to you in your trial license and click on **[OK]** to save and close.



You've now installed and licensed Kofax RPA!

STEP 5. Leave **Design Studio** open. You will be using it to build your first robot in the next tutorial segment.

STEP 6. Proceed on to **Part 2: Creating your First Robot**.

PART 2:

Creating your First Robot

In this tutorial series we will **create a robot for comparative pricing analysis**. This robot will visit the web site of a competitor, search for information on a selection of products and save the collected information as a spreadsheet. In this second tutorial segment, we will guide you through the steps needed to **define some data types**, then how to apply them while building your first robot.

BEFORE YOU START BUILDING YOUR ROBOT

Check that the following prerequisite tasks have been completed.

- ✓ Make sure you've thoroughly reviewed and accomplished the tasks in the first tutorial segment before continuing on. **Kofax RPA** should now be installed and you should have provided the required license credentials in the Management Console.
- ✓ Check to make sure you've launched **Design Studio** and provided the required license information using the provided trial license.
- ✓ RoboServer/Management Console should be launched and running in a command window. Remember, this is where your license is coming from. **You may choose to minimize the window, but do not close it or you will stop the service.**
- ✓ Make sure that you are **saving your work often** as you go through the remaining tutorial segments.

CREATE YOUR PROJECT AND DEFINE SOME DATA TYPES

In this section you will follow the steps to create some **Types**. Types define the kind of data your robot will use.

CREATE A PROJECT

STEP 1. Make sure that **Design Studio** is open. If it isn't, launch it from the Kofax RPA program group.

STEP 2. From the **File** menu, select **New Project**. When prompted, enter "**Tutorial**" as the new project name.

STEP 3. In the Project Location field, enter "**C:\Kofax RPA**" and click on the **[Finish]** button, to create the Kofax RPA Tutorials folder and project.

CREATE A TYPE AND ATTRIBUTE

STEP 4. From the **My Projects** panel, select then **right mouse-click** on the newly created **Tutorial** project and select **New | Type** from the resulting **context** menu.

STEP 5. Enter "**SearchItem.Type**" and click on the **[Finish]** button. Your new **SearchItem** type will open as a **quick-access** tab in the main window.

PART 2:

Creating your First Robot

STEP 6. Locate the **Attributes** panel and click on the **[+]** symbol at the bottom, to create a new attribute.

STEP 7. On the **Basic** tab, enter "**SearchItem**" in the **Name** field and select **Short Text** from the **Type and Default Value** drop-down list.

STEP 8. Check the **Required** checkbox, and click on the **[OK]** button.

CREATE A SECOND TYPE AND ATTRIBUTE

STEP 9. Repeat **Step 4** to create a second type under your **Tutorial** project. Title this one "**SearchResults**" and click on the **[Finish]** button.

STEP 10. Locate the **Attributes** panel again and click on the **[+]** symbol at the bottom, to create a new attribute.

STEP 11. On the **Basic** tab, enter "**Description**" in the **Name** field and select **Short Text** from the **Type and Default Value** list.

CREATE A SECOND AND THIRD ATTRIBUTE

STEP 12. Locate the **Attributes** panel again and click on the **[+]** symbol at the bottom, to create a new attribute.

STEP 13. On the **Basic** tab, enter "**Overview**" in the **Name** field and select **Long Text** from the **Type and Default Value** drop-down list.

STEP 14. Again, locate the **Attributes** panel and click on the **[+]** symbol at the bottom, to create a new attribute.

STEP 15. On the **Basic** tab, enter "**Price**" in the **Name** field and select **Number** from the **Type and Default Value** drop-down list.

STEP 16. Click **[OK]** to save your work.

BUILD YOUR ROBOT

In this section you will begin to build your robot. Robots are designed to automate human tasks.

CREATE A NEW ROBOT

STEP 1. Right mouse-click on the **Tutorial** project in the **My Projects** panel.

STEP 2. Select **New | Robot** from the resulting **context** menu.

STEP 3. Give your robot the name "**HardwareSearch**" and click on **[Next]**.

STEP 4. On the next screen, enter "**http://class.kofax.com/hardyhardware**" as the URL. Accept the other defaults and click on **[Finish]**.

PART 2:

Creating your First Robot

Your new robot opens as a **quick-access tab** in the main window. Notice a “**Load Page**” step has been created for you and the HardyHardware home page is displayed in the **Browser** panel.

ADD VARIABLES TO YOUR ROBOT

STEP 1. Go to the **Variables** tab in the panel displayed at the bottom-right of the window and click on the **[+]** symbol to add a new variable. Variables will act as **containers** for your data.

A. Leave the **Name** field blank (Design Studio will name the variable for you. Thanks, Design Studio!)

B. This first variable will be used as input, so check the **Input** checkbox.

C. Select **SearchItem** from the drop-down as the Type to use for this variable.

D. Type “**faucet**” in the **text box** directly below the type to provide a default value. Then click on **[OK]** to save your work.

Notice that you now have a new variable called **searchItem**.

STEP 2. Click the **[+]** symbol one more time to create a second variable. This one will contain your search results.

A. Again, you may leave the **Name** field blank. Don't check any checkboxes this time.

B. Select **SearchResults** as the Type to use for this variable.

C. Click **[OK]** to save your work.

STEP 3. Click on the **[Save All]** button  on the toolbar to save your robot and types.



CONGRATULATIONS

You've just completed the second tutorial segment. You have now created a robot that has opened a home page and has some variables defined to work with data.

Of course this is only the very first step and in the next tutorial part you will expand your robot to search for products and extract useful information.

STEP 4. Continue on to **Part 3: Extracting Data from a Page**.

PART 3:

Extracting Data from a Page

In this tutorial segment, we will guide you through the steps needed to **extract data for items displayed on a page**. You will start out simple by doing this for a single product at first.

ADD STEPS TO YOUR ROBOT

STEP 1. Locate the **Search box** in the top-right corner of the web site's home page displayed in the **Browser** panel. You may have to scroll to the right in the **Browser** panel. **Left mouse-click** on the **Search box** to select it. A green outline should surround the box indicating that it has been selected.

STEP 2. **Right mouse-click** on the green box area and select **Enter text from variable** from the context menu.

STEP 3. Select **SearchItem.SearchItem** from the list of available variables. An **Enter Text action** step is automatically created and the text **faucet** contained in the variable populates the box.

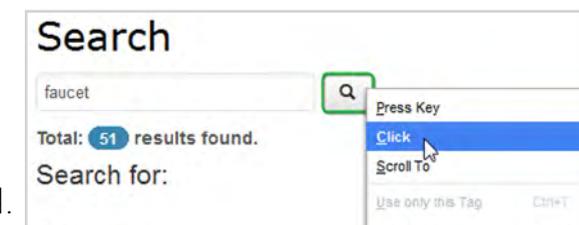
STEP 4. Once again **left mouse-click** on the **Search box** in the **browser** panel to select it. Then **right mouse-click** and this time, select **Press Key** from the **context** menu. Accept the default, **Enter**, as the key to press. As your action step automatically executes and advances to the end step, your search should be run and the first page of results displayed.

STEP 5. You'll notice that there are multiple items returned. You want to select the first item, return details from which you'll perform your extraction, and then loop through all items on the page. BUT... every once in a while, depending on the search term, the first couple of items in the returned list might be a category of items rather than only individual products. In these cases, the extraction steps you're going to set up will fail because the HTML tag is different for categories. To prevent that problem:

A. In your **browser** panel, go to the **Search Only:** section of the web page and select the **Products** checkbox. Once it's selected (indicated by a green box), **right mouse-click** on it and select **Set checkbox** from the context menu.

B. A **Set Checkbox** dialog box will pop up. Set Checkbox to **Checked** and click **[OK]**.

C. Go back to the top of the web page and have your robot re-execute the search by selecting the search icon (**magnifying glass**), **right mouse-clicking** on it and selecting **Click** from the **context** menu. Your search is re-executed, the first page of items matching your search is displayed and your robot workflow shows the end step selected.



PART 3:

Extracting Data from a Page

EXTRACT DATA FROM THE SEARCH RESULTS

Now let's set up extraction for Description, Overview and Price.

STEP 1. Go to the first product displayed in your **browser** panel. It should be a *2-Handle Service Sink Faucet in Chrome with 6 in. S Type Swing Spout*. **Left mouse-click** on it to select it (selection indicated by a green box).

STEP 2. **Right mouse-click** on your selection and from the resulting context menu, select **Click**. A new action step called "**Click 2-Handle**" is created. Note that your robot advances to the end step.

STEP 3. Make sure the end step is selected in the robot workflow (the  symbol is marked in blue). Your click step is executed and the detail page for the faucet is displayed.

STEP 4. On the web page displayed in the browser panel, **left mouse-click** on the description to select it.



STEP 5. **Right mouse-click** on the selection and pick **Extract | Text | searchResults.Description** from the **context** menu.

STEP 6. **Left mouse-click** on the paragraph labeled "Product Overview" to select the entire paragraph. Then **right mouse-click** on the selection and pick **Extract | Text | searchResults.Overview** from the **context** menu.

STEP 7. **Left mouse-click** on the dollar amount on the web page labeled "**Our price**" to select it. **Right mouse-click** on the selection and pick **Extract | Number | searchResults.Price** from the **context** menu and accept the defaults in the dialog window that pops up.

With the robot's end step selected in the robot workflow, data has been extracted and is contained in the **SearchResults** variable. You can see that if you examine the Variables panel at the bottom right corner of your Design Studio window.

STEP 8. Select the **end** step of your robot. **Right mouse-click** on it and select **Insert Step Before | Action step**.

STEP 9. **Left mouse-click** on your new (**Unnamed**) action step, and in its properties panel, select the **Action** tab.

PART 3: Extracting Data from a Page

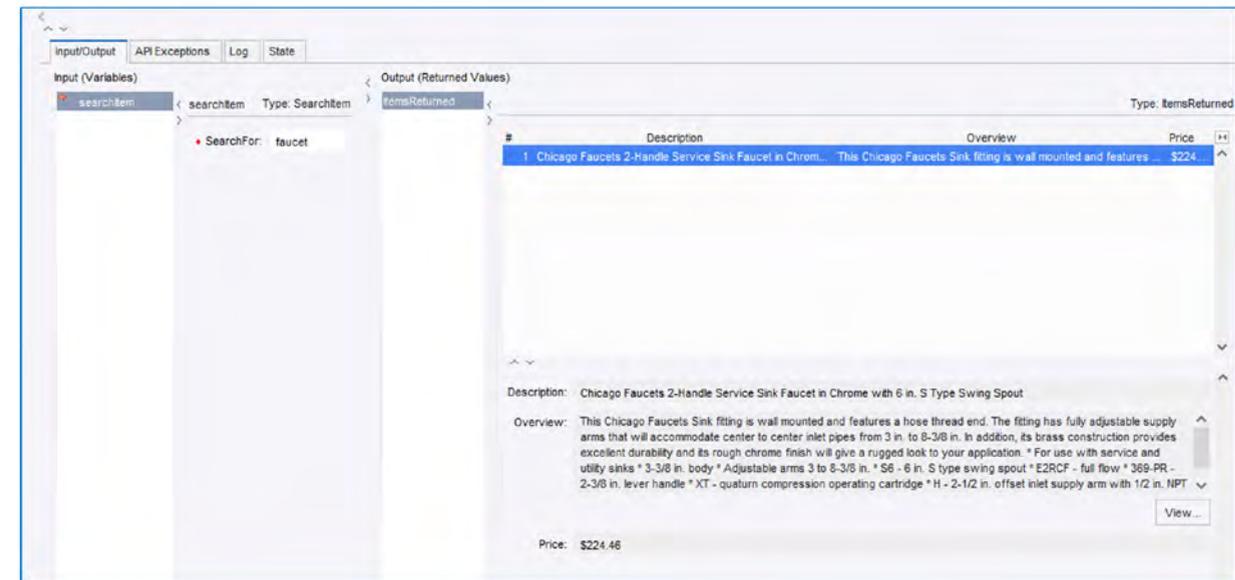
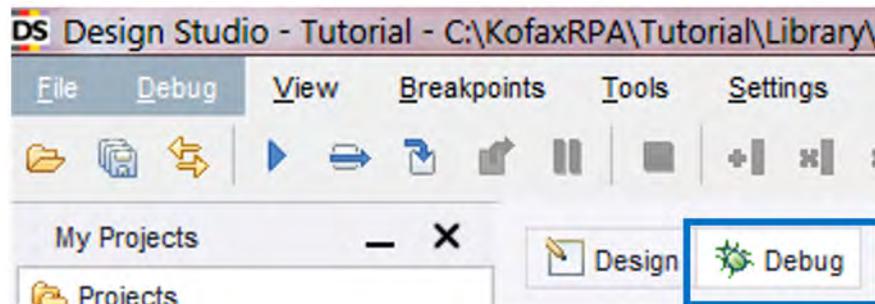
STEP 10. From the **Select an Action** dropdown menu, select **Return Value**. In the **Variables** text box, select **SearchResults**. This step will be used for testing your robot in Debug mode.



STEP 11. Click on the **[Save All]** button  on the toolbar to save your robot and types.

Make sure that you are saving your work often as you go through the remaining tutorial segments.

STEP 12. Click on the **Debug** tab (on the Quick Access tabs) to switch your robot from *Design Mode to Debug Mode*. Now click on the **[Run]** button (the blue forward arrow icon) in your toolbar at the top of your screen and watch how the search results are being displayed on the **Input/Output** tab in the middle of your screen.



CONGRATULATIONS

You've just completed the third tutorial segment. You have now created a robot that returns the Description, Overview and Price of the first item displayed on the first page of your search.

Yes, there's more than one item per page and more than one page of results. We'll want to get those results as well. In the next tutorial segment, we will continue to expand on the functionality of our robot, and you'll learn how to loop through multiple items and multiple pages.

STEP 13. Continue to **Part 4: Expanding your Robot**.

PART 4: Expanding your Robot

Because you're going to loop through multiple items on the page, and potentially multiple pages you'll need to set up a couple of Loop action steps.

LOOPING THROUGH MULTIPLE ITEMS ON A PAGE

STEP 1. In your **robot workflow**, **left mouse-click** on the **Click 2-Handle** action step to select it. Notice the steps leading up to it turn green and the step itself will turn blue, and your robot goes back in the **browser** panel to displaying the page with the list of matching items.

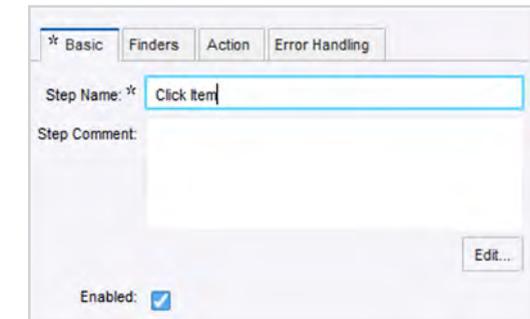
STEP 2. In the **browser** panel, **right mouse-click** on **2-Handle Service Sink Faucet in Chrome with 6 in. S Type Swing Spout** and select **Loop | For Each URL** from the **context** menus.

STEP 3. Once again, in the **browser** panel, **right mouse-click** on **2-Handle Service Sink Faucet in Chrome with 6 in. S Type Swing Spout** and select **Click**.

A new **Click 2-Handle** step is created preceding the original one, but this time, it's relative to the loop step. So each time you move down through the items, the click step will move as well. The second **Click 2-Handle** step is no longer needed so we'll have you delete it.

STEP 4. Select the second **Click 2-Handle** action step and press the **[Delete]** key.

STEP 5. Select the remaining **Click 2-Handle** action step (it will turn blue) and in its step properties, select the **Basic** tab. Change the **Step Name** to **Click Item** as shown to the right.



STEP 6. Click on the **[Save All]** button on the Design Studio toolbar.

STEP 7. Click on the **Debug** tab to go to debug mode.

STEP 8. Click on the **[Run]** button to run your robot. Details for all items on the first page of search results should be returned. There should be 20 items.

CONGRATULATIONS

You've just completed Part 4 of the tutorial and expanded the functionality of your robot by creating a routine that automatically loops through multiple items.

STEP 9. Continue to **Part 5: Looping through Multiple Pages**

PART 5: Looping through Multiple Pages

In this tutorial part, you will create what's called a **Repeat/Next loop**. Repeat/Next loops allow your robot to easily loop through a routine multiple times. In this case, it will be looping through multiple pages.

NESTED LOOPS

STEP 1. If your robot is still being shown in Debug mode, simply click on the **Design** tab to return to Design mode.

STEP 2. **Left mouse-click** on the **For Each URL** loop action step to select it.

STEP 3. **Right mouse-click** on it and select **Insert Step Before | Action Step** to insert a new step before the loop.

STEP 4. Select your new **Unnamed** action step. On its **Action** tab, select **Loop | Repeat** to create a new Repeat loop step.

Repeat actions are always paired with a Next action. That Next action should be placed on another branch of your robot. For this next step, you need to create that branch yourself.

STEP 5. Select your **Repeat** action step by **left mouse-clicking** on it.

STEP 6. Go to the **Design Studio** toolbar above and click on the **[Add Branch from Selected Step]** button  and a new branch will be created after the Repeat step. The new branch will include its own end step.

If you have stepped through your URLs, Executing all those steps may take quite some time in which case you can stop the robot by clicking on the red stop button  in the toolbar and then select the new branch by clicking on it. Click on the First iteration button  of the for each step to prevent this happening accidentally in the future. Note that the iteration count is now set to 1.

STEP 7. Make sure the **end step** of the new branch is selected by left clicking on it.

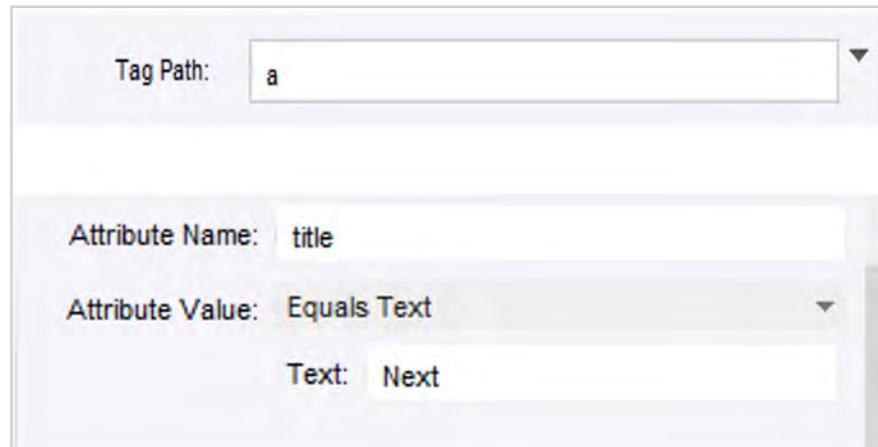
Now ask yourself, "What do I want to happen when all items have been extracted on the first page?" The answer, is that you want to click the **[Next]** button to go to the next page. So...

STEP 8. In the **browser** panel, left mouse click on the **[Next]** button at the bottom of the web page displayed. It will get a green box around it indicating it's been selected.

PART 5: Looping through Multiple Pages

STEP 9. Right mouse-click on the selection and pick **Click** from the resulting context menu. A new Click step is created *before* the Next step.

STEP 10. Go to the Finders tab of your new **Click** step. Manually enter the following on the tab: select it.



Tag Path: a

Attribute Name: title

Attribute Value: Equals Text

Text: Next

This comes from examining the HTML code for the Click step. We must make sure that even if the number of buttons change we do not miss the next button. So we make the Tag Path very generic. But of course we still want to make sure we only click the next button so we use the fact that on this page the Next button always has the "title" attribute and "Next" as the text of this attribute.

STEP 11. Make sure the **end step** of the new branch is selected by left clicking on it.

STEP 12. Right mouse-click on it and select **Insert Step Before | Action Step** to insert a new step.

STEP 13. Select this new **Unnamed** action step and on its action tab, select **Loop|Next**.

STEP 14. What if the Next button doesn't show up on the page because your search is only one page long or because you've reached the last page for an item? An error would be returned. You need to tell your Robot what to do. So go to the properties of your new **Click** step and select the **Error Handling** tab. From the **Then** dropdown, select **Break Loop**.

STEP 15. At this point in the tutorial, your robot should look like this:



STEP 16. Save your work by clicking on the **[Save All]** button. 

PART 5:

Looping through Multiple Pages



CONGRATULATIONS

You've just completed Part 5 of the tutorial and expanded the functionality of your robot by creating a routine that can deal with multiple pages, as well as just a single page.

STEP 17. Go ahead and launch **Part 6: Writing Your Results to Excel.**

PART 6:

Writing Your Results to Excel

In this tutorial segment, you will **create a Microsoft Excel variable that will contain the results output by your robot**. When the robot writes out the content of that variable to a file, you'll see that an Excel workbook will be created.

CREATING AND LOADING AN EXCEL VARIABLE

CREATE A VARIABLE

STEP 1. Make sure Design Studio is open and your **HardwareSearch** robot is displayed in Design Mode.

STEP 2. Go to the **variables** panel in the bottom right of your window. Click on the **[+]** symbol to add a new variable.

STEP 3. Leave the **name** blank, and check the **Global** checkbox.

STEP 4. Select **Excel (simple)** as the Type.

STEP 5. Click the **[Load]** button. Accept **New Excel Workbook (*.xlsx)** and click **[OK]**.

STEP 6. Click on **[OK]** to save your new variable.

WRITE TO THE VARIABLE

Now, we're going to open the Excel variable so we can write data to it. Writing data will be part of our loop and will create multiple rows in an Excel spreadsheet. However, we only want to open the variable once, so that step will be placed at the beginning of our robot, outside of the loop.

STEP 1. Select the **Start Icon**  at the beginning of your robot. **Right mouse-click** on and select **Insert Step After | Action Step**.

STEP 2. From the **Action drop-down** in its properties, select **Open Variable**.

STEP 3. From the **Variable drop-down** below, select **Excel**.

An **Open Excel** action step is created at the beginning of your robot.

OUTPUTTING TO EXCEL

WRITE YOUR DATA TO EXCEL

STEP 1. In your robot workflow, select the **end step** of the upper branch and wait until the robot has executed the necessary steps.

STEP 2. Then, at the top of the **browser panel**, **right mouse-click** on the **excel - Excel Variable** tab and select **Set as Current Window**.

PART 6: Writing Your Results to Excel

STEP 3. With the End step selected (blue), go down to the blank spreadsheet now displayed in your **browser** panel. Click on the number 1 to select the first row. A green box should appear around it indicating it's been selected.

STEP 4. Right mouse-click on the **green box** and from the **context** menu, and select **Modify | Insert | Rows | Last**. A dialog box pops up. Accept Number of Rows: 1 by clicking on **[OK]**. A new **Insert Row** step will be created.

STEP 5. With the Insert Row step still selected, go to your **browser** panel and select the first cell within the blue box (column A) shown on your spreadsheet. A green box will indicate your selection.

STEP 6. Right mouse-click on it and select **Set Content**. A dialog box will appear.

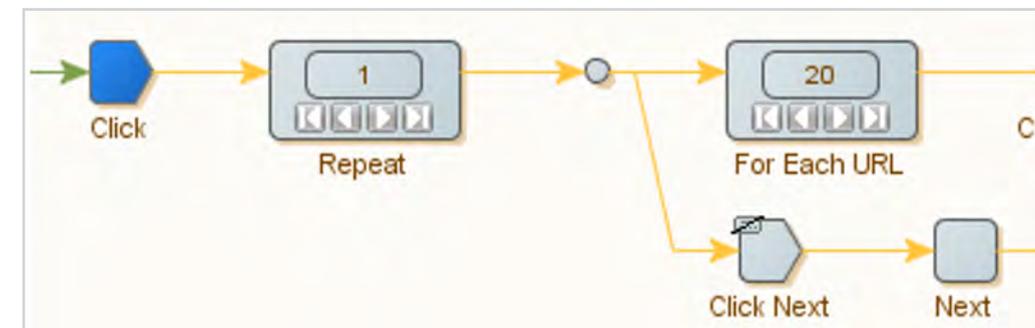
STEP 7. Click on the **small arrow** immediately to the right of the **Content text box**. From the drop-down, select **Variable**.

STEP 8. From the **Select a Variable** drop-down, select **searchResults.Description**. Click **[OK]** to save and close.

STEP 9. Repeat Steps 5 through 8, populating **Column B** with the **searchResults.Overview** variable and **Column C** with the **searchResults.Price** variable.

STEP 10. [Optional] Let's order these set content steps into a neat group by selecting them all and clicking the group button  in the toolbar.

STEP 11. Select the **Click** step just before the **Repeat** step as shown below.



STEP 12. Click on **Add Branch** from selected step in the toolbar.

STEP 13. Select the **End** step in the new branch.

STEP 14. Go to the **Action** tab of your new (**Unnamed Step**) and select **File System | Write File** from the dropdown menu.

STEP 15. On the Write File Action tab, set the File Name to `"C:\results\products.xlsx"`.

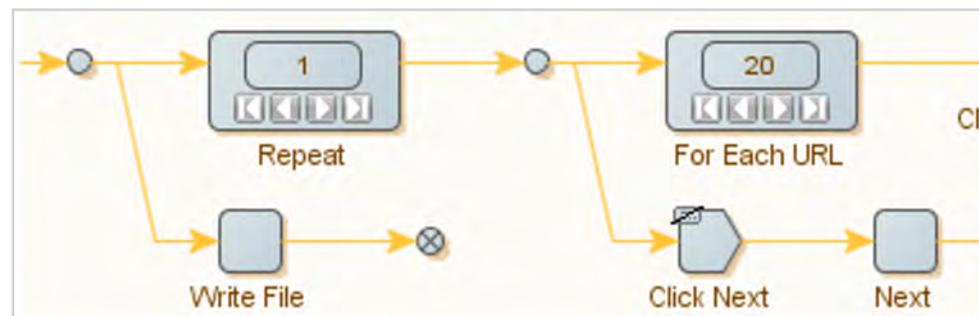
PART 6: Writing Your Results to Excel

STEP 16. For **File Content**, select the drop-down arrow on the right and select **Variable**.

STEP 17. From the **Select a Variable** dropdown, select **excel**.

STEP 18. Check the **Create Directories** checkbox.

STEP 19. **Save** your robot. The newest section of your robot should be structured like this:



STEP 20. Try running your robot in debug mode.

STEP 21. Open Windows Explorer and navigate to "**C:\results**". You should see a new unformatted Excel spreadsheet there. If you have Excel installed on your system, double-click on it to open it. There's your data, ready for formatting!

Now that you have a robot that functions well, let's make it a bit more robust. What would happen if the robot would run a second time and the file would already exist? It would stop with an error and that is something we can prevent.

STEP 22. Go to **Design Mode** again and select the **Write File** step

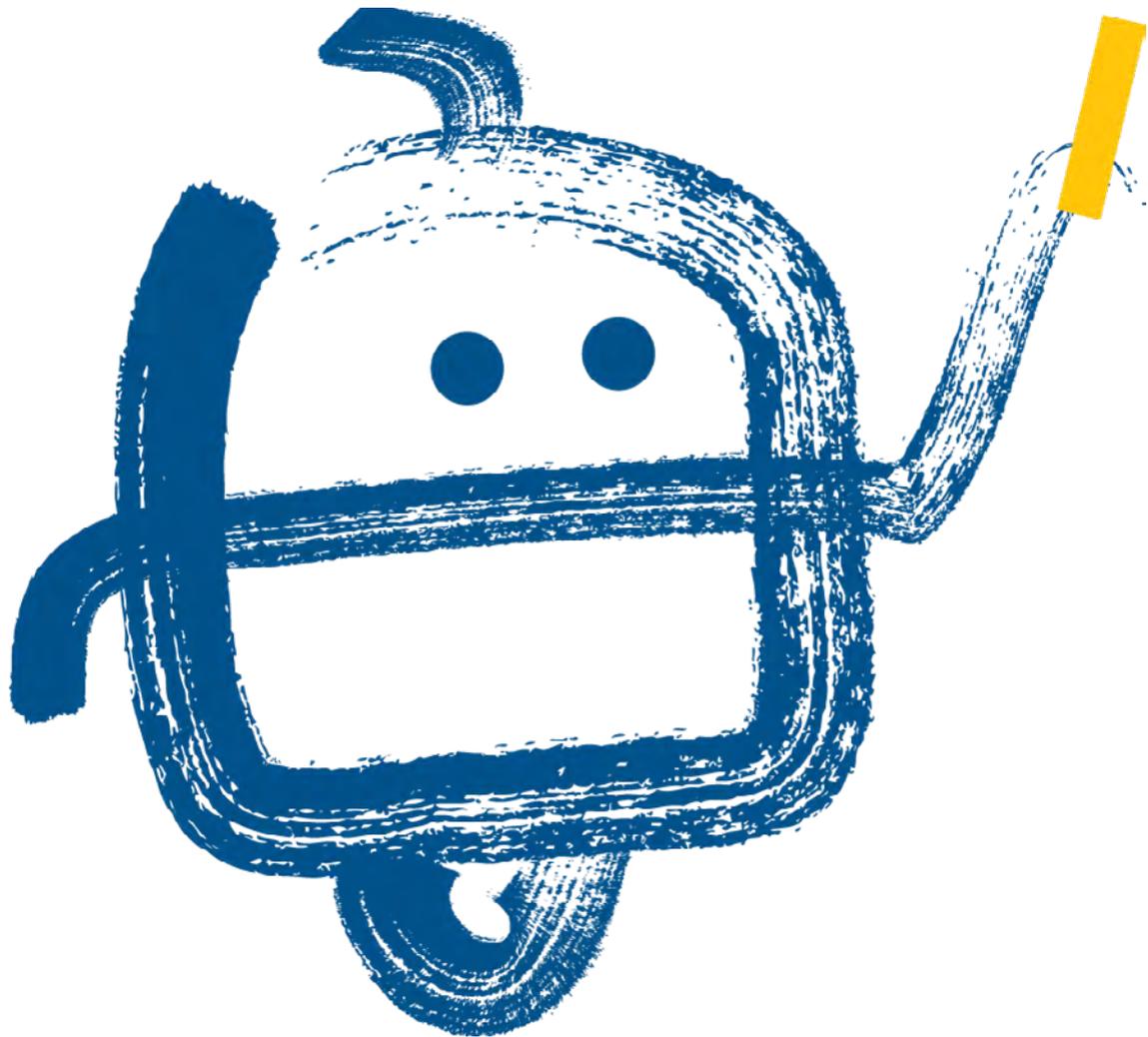
STEP 23. **Right mouse-click** and select **insert step before**.

STEP 24. In the **Action** tab, click on **Select Action** and select **Delete File** form the File system menu.

STEP 25. Use the same filename as in Step 15, and configure the error handling to ignore this single step if something goes wrong. After all, the first time this robot will run the file will not exist yet, but with this setup, we now cover both situations: if there is no file that is ok, we just write a new one; if there is, we delete it first.

PART 6:

Writing Your Results to Excel



CONGRATULATIONS

You've now completed the *How to Build Your First Robot* tutorial. You can run your robot any number of times using whatever search term you wish. Just remember to delete the existing spreadsheet before you do that. We haven't set up our robot to do that for us, but we could! We could also output to a database instead of a spreadsheet if we wanted to. Kofax RPA is a powerful RPA (robotic process automation) product with dozens of different kinds of action steps to accommodate what you need to do.

Hopefully, you've found this tutorial fun and informative.

What's Next?

Although this tutorial series shows you that you could build your own robot, there is still much to be learned about the RPA product and all that it is capable of doing. **Kofax strongly recommends formal product training in order to become proficient building your own robots.**

You can start your formal training by enrolling in Kofax's Introduction to Robotic Process Automation (RPA) training course. This course is free of charge, can be streamed to your computer, and will take approximately 1 day (8 hours) to complete. [Click here](#) to register for this informative class on Kofax RPA.

More Information on Kofax Product Training

For more high-quality product training for Kofax RPA and other Kofax software products, visit us at education.kofax.com/training.

Please contact us at training@kofax.com for questions concerning this tutorial.

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