Excel advanced

Package

The **Excel advanced package** contains actions that enable you to automate many of the repetitive tasks when working with Microsoft Excel spreadsheets. You can automate tasks related to the workbook, worksheet, rows, columns, and cell operations. You can use these actions when Microsoft Excel is installed on the device that you want to use to automate the Microsoft Excel-related tasks.

Actions in the Excel advanced package support Microsoft Office 2000 through Microsoft Office 2016 and .xls, .xlsx, .xlam, .xltm, .xltx, and .xlsm formats. You can also use some of the actions with the .csv format.

Before you start

Perform the following actions within the Excel advanced package as part of using the set of available actions:

1. Open the Microsoft Excel spreadsheet that you want to use to automate the Microsoft Excel-related tasks. Use the Open action to open the spreadsheet. See Using Open action.
2. Use the different actions available in the Excel advanced package to automate the Microsoft Excel-related tasks.
3. After you have automated all the Microsoft Excel-related tasks, close the spreadsheet using the Close action.

Actions in the Excel advanced package

The actions in the Excel advanced package enable you to perform the following operations:

1. Workbook operations

Perform operations such as opening a workbook, appending data, protecting and unprotecting a workbook, and converting a Microsoft Excel workbook to a PDF file.

Append workbook

Adds all the worksheets from the specified workbook to the end of the currently open workbook.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Specify the workbook from which you want to append the worksheets in the **Append from workbook** field.
3. If the workbook is protected, select the **Password is required** check box and enter the password in the **To open** field.

Close

Closes the current workbook and provides an option to Save changes when closing the file.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.

Convert excel to PDF

Converts the entire workbook, specific worksheets in a workbook, or a CSV file to a PDF file.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Specify whether you want to convert the **Entire excel file**, **Active sheet**, or **Specific sheet** to a PDF file.
3. Enter a name for the PDF file in the **Select PDF file name** field.
4. Specify the location where you want to save the file in the **Select PDF storage location** field.

Create workbook

Creates a Microsoft Excel workbook or a CSV file.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Specify the location where you want to save the workbook in the **File path** field.
3. Specify the name of the worksheet and passwords to open and edit the workbook.

Open

Opens a Microsoft Excel spreadsheet or a CSV file. This action enables you to specify whether to open the spreadsheet in read-only mode or read-write mode, a password to open the spreadsheet, and so on.

Procedure:

1. Specify a name for the session in the **Session name** field.
2. Select from where you want to open the Microsoft Excel spreadsheet.
3. Select the **Specific sheet name** option and specify the name of the sheet to activate when the Microsoft Excel spreadsheet opens.
4. Select **Read-only mode** or **Edit mode** to open the Microsoft Excel spreadsheet in read-only or edit mode respectively.
5. Select the **Password is required** check box if a password is required to open or edit the Microsoft Excel spreadsheet.

6. **Optional:** In the **User password** or **Owner password** field, enter a password to restrict access to the encrypted PDF file.
7. Select the **Sheet contains a header** check box if the Microsoft Excel spreadsheet contains a header row.
8. Select the **Load Add-ins** check box if you want to load the add-ins available in the Microsoft Excel spreadsheet.

Protect workbook

Protects the workbook and its structure using a password. Protecting a workbook prevents other users from opening the workbook without the password and protecting the structure of a workbook prevents other users from adding, moving, deleting, hiding, and renaming worksheets within that workbook.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Select the **Protect workbook** and **Protect workbook structure** check boxes and provide a password in the respective fields.

Save workbook

Saves the current workbook. Enter the name of the session used to open the current workbook with the Open action.

Unprotect workbook

Unprotects a workbook and its structure. Unprotecting a workbook removes the restriction applied on opening the workbook and unprotecting the structure of a workbook removes the restriction applied on modifying the structure of the workbook. Unprotecting allows other users to open the workbook, add, move, delete, hide, and rename worksheets within the workbook.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Select the **Unprotect workbook** and **Unprotect workbook structure** check boxes and provide a password to unprotect the workbook structure.

2. Worksheet operations

Perform operations such as creating and deleting a worksheet, appending data, and hiding and unhiding a worksheet.

Access password protected worksheet

Accesses a password-protected worksheet in the current workbook.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Enter the password to access the worksheet.

Append worksheet

Appends a worksheet from another workbook to the current workbook.

Procedure:

1. Specify the name of the session in which you want to perform the action in the **Session name** field.
2. Select an option to specify the location of the spreadsheet from which you want to append the worksheet.
3. Select the **Password is required** option if the Microsoft Excel spreadsheet requires a password to open it.
4. **Optional:** In the **User password** or **Owner password** field, enter a password to restrict access to the encrypted PDF file.
5. Select the **Enter worksheet name** or **Enter worksheet index** option to specify the name or number of the worksheet that you want to append.

Create worksheet

Creates a worksheet in the current workbook.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Specify either an index number in the **Sheet by Index** field or a name in the **Sheet by Name** field for the worksheet.

Delete worksheet

Deletes a spreadsheet from the current workbook.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Specify either an index number in the **Sheet by Index** field or a name in the **Sheet by Name** field for the worksheet.

Get current worksheet name

Gets the name of the current worksheet and assigns it to a string variable.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Select a string variable that you want to use to store the name of the worksheet from the **Assign the output to variable** list.

Get worksheet as data table

Gets data from a worksheet and saves it in a table variable.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Specify either an index number in the **Sheet by Index** field or a name in the **Sheet by Name** field for the worksheet.

Get worksheet names

Gets the names of all the worksheets and assigns them to a list variable of string data type.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Select a string variable that you want to use to store the name of the worksheet from the **Assign the output to variable** list.

Hide worksheet

Hides a worksheet from the current workbook.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Specify the name of the worksheet to hide in the **Enter worksheet name to hide** field.

Password protect worksheet

Protects a worksheet with a password. You can also specify the operations to restrict on the worksheet.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Specify the password you want to use to protect the worksheet and select the check boxes for the operation that you want to restrict on the worksheet.

Rename worksheet

Renames a worksheet in the current workbook.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Specify either an index number in the **Sheet by Index** field or a name in the **Sheet by Name** field for the worksheet.

Retrieve sheets count

Gets the number of sheets available in the current workbook and stores it in a number variable.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Select the appropriate option to specify whether to include the hidden worksheet or not and assign the count to a variable.

Run macro

Runs a macro in a worksheet.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Specify the name of the macro you want to run and its arguments.

Switch to sheet

Activates a particular sheet in a Microsoft Excel file.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Specify whether to activate the **Sheet by Index** (numerical value) or **Sheet by Name**.

Unhide all worksheets

Unhides all worksheets in the current workbook. Enter the name of the session used to open the current workbook with the Open action.

Unhide worksheet

Unhides a specific worksheet in the current workbook.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Specify whether to activate the Sheet by Index (numerical value) or Sheet by Name.

Write data table to worksheet

Writes data available in a data table variable in a worksheet.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Specify the data table variable that contains the data you want to write in a worksheet.
3. Specify whether you want to write data in the currently **Active worksheet** or **Specific worksheet**.
4. Specify the address of the cell that you want to use as the starting point of the data in the **Specify the first cell** field.

3. Row and column operations

Perform operations such as inserting new rows and columns and hiding and unhiding rows and columns.

Hide row(s)/column(s) in selection

Hides rows or columns in the current worksheet.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Select the appropriate option to specify whether to hide one or more rows and columns.

Insert/Delete Row(s)/Column(s)

Creates or removes row(s) or column(s) from the current worksheet or CSV file.

Procedure:

1. Specify the name of the session in which you want to perform the action in the **Session name** field.
2. Select the **Row operations** if you want to insert or delete rows from the spreadsheet.
3. Select the **Column operations** if you want to insert or delete columns from the spreadsheet.

Read column

Extracts data from a column and stores it in a list variable of string data type.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Select the **From active cell** or **From specific cell** option to specify the starting point. You can also select the **Read full column** option to extract data for the entire column.
3. Select a list variable of string data type that you want to use to store the extracted values.

Read row

Extracts data from a row and stores it in a list variable of string data type.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Select the **From active cell** or **From specific cell** option to specify the starting point. You can also select the **Read full row** option to extract data for the entire row.

3. Select a list variable of string data type that you want to use to store the extracted values.

Remove blank rows

Removes blank rows from the current worksheet. You can specify the range from which you want to delete the blank rows.

Select cell(s)/row(s)/column(s)

Selects cells, rows, or columns.

Procedure:

1. Specify the name of the session in which you want to perform the action in the **Session name** field.
2. Select an option from the **Select** list to specify whether you want to select a cell, row, or column

Unhides row(s)/column(s) in selection

Unhides the hidden rows or columns in the current worksheet.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Select the appropriate option to specify whether you want to unhide a row or column and which row or column to unhide.

4. Cell operations

Perform operations such as extracting data from cells, deleting values from a cell, moving a cursor to a specific cell, and finding and replacing content.

Delete cells

Deletes the **Active cell** or a **Specific cell** from the current worksheet or a CSV file.

After deleting the cell, you can:

- **Shift cells left**: Deletes the specified cell and shifts the cell one position to the left.
- **Shift cells up**: Deletes the specified cell and shifts the cell one position up.
- **Entire row**: Deletes the entire row that contains the cell you have specified to delete.
- **Entire column**: Deletes the entire column that contains the cell you have specified to delete.

Find next empty cell

Finds the next empty cell in the current worksheet.

Procedure:

1. Specify the name of the session in which you want to perform the action in the **Session name** field.
2. Select the **row** or **column** option from the **Traverse by** section to specify whether you want to find the empty cell in a row or column.
3. Select the **active cell** or **specific cell** option from the **Start from** section to specify the point from where you want to start the search.
4. Select the string variable you want to use to store the address of the empty cell from the **Assign the output to variable** list.

Find

Finds a particular string in a Microsoft Excel spreadsheet or a CSV file.

Procedure:

1. Specify the name of the session in which you want to perform the action in the **Session name** field.
2. Select an option from the **From** list to specify a starting point of the cell range.
3. Select an option from the **Till** list to specify an end point of the cell range.
4. Specify the string you want to search in the **Find** field.
5. Select the search options.
6. Select the list variable of string data type that you want to use to store the output from the **Assign cell addresses variable** list.
7. In the **Assign value to variable** list, select a string variable.

Get cell color

Gets the color of the background or text in a cell. This action retrieves the color of a cell as RGB values. For example, if the background or text in a cell is of red color, the value retrieved is 255,0,0.

Procedure:

1. Specify the name of the session in which you want to perform the action in the **Session name** field.
2. Select the **Background color** option to get the background color of the cell or the **Text color** option to get the color of the text.
3. Select the **Active cell** option to get the color from the current active cell or the **Specific cell** option to get the color from the address of the cell you have specified.
4. Select a variable from the **Assign the output to variable** list to assign the address of the empty cell to the variable you have selected from the list.
5. Select the string variable you want to use to store the address of the empty cell from the **Assign the output to variable** list.

Get multiple cells

Retrieves the values from the cells in a Microsoft Excel spreadsheet and stores them in a table variable.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Select the **Multiple cells** option to retrieve values from a range of cells or select **All cells** to retrieve values from all the cells.

Get number of rows

Gets the number of rows that contain data.

Procedure:

1. Specify the name of the session in which you want to perform the action in the **Session name** field.
2. Select the **Index** option to specify the number of the worksheet or the **Name** option to specify the name of the worksheet from which you want to get the number or rows.
3. Select the **Non-empty rows** option to get the number of rows that are not empty or the **Total rows with data** option to get the number of rows that contain data.
4. Select the number variable you want to use to store the output from the **Assign to variable** list.

Get single cell

Retrieves the values from a single cell in a Microsoft Excel spreadsheet or a CSV file and stores them in a string variable.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Select the **Active cell** option to retrieve the value from the active cell or select **Specific cell** to retrieve the value from a specific cell in a Microsoft Excel spreadsheet.

Go to cell

Moves the cursor to a specific cell in a Microsoft Excel spreadsheet or a CSV file.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Select the option to specify the cell to which the cursor should be moved or select an option from the **Active cell** list.

Go to next empty cell

Finds the next empty cell in the current worksheet. You can specify whether to find the empty cell toward the left, right, up, or down.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Select the **Active cell** or **Specified cell** option to specify the cell from which to start searching for the empty cell. If you have selected the **Specified cell** option, specify the address of the cell in the field.
3. Select the **left**, **right**, **up**, or **down** option to specify the direction in which to search for the next empty cell.

Read cell formula

Gets the formula available in the Active cell or Specified cell and assigns the output to a string variable. This action returns a blank value if the specified cell does not contain a formula.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Select the **Active cell** or **Specified cell** option to specify the cell from which to read the formula. If you have selected the **Specified cell** option, specify the address of the cell in the field.
3. Select a string variable to store the name of the formula from the **Assign the output to variable** list.

Replace

Finds a piece of text from the source string and replaces it with the text you specify. A regular expression is a sequence of characters that define a search pattern.

Procedure:

1. Specify the string from which you want to find and replace a part of the string in the **Source string** field.
2. Specify the string that you want to replace in the **Find string** field.
3. Select the **Match case** option, if you want to match the case of the text while finding the string or the **Do not match case,** if you do not want to match the case of the text.
4. Select the **A regular expression** option, if the text you have specified in the **Find string** is a regular expression or the **Not a regular expression,** if the text is not a regular expression.

5. Enter a value in the **Start from** field to specify the number of occurrences from which you want to start replacing the find text.
6. Enter a value in the **Count** field to specify the number of times the find text must be replaced.
7. Enter the text you want to replace with in the **Replace with** field.
8. Select the string variable that you want to use to store the output from the **Assign the output to variable** list.

Set cell

Sets a value in the **Active cell** or **Specific cell** in a Microsoft Excel spreadsheet or a CSV file. You can also use this action to set a formula.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Select the **Active cell** or **Specified cell** option to specify the cell in which to set the value. If you have selected the **Specified cell** option, specify the address of the cell in the field.
3. Enter the value to set in the **Cell value** field.

Set cell formula

Sets a formula in the active cell or a specific cell in a Microsoft Excel spreadsheet or a CSV file.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Select the **Set formula for active cell** or **Set formula for specified cell** option to specify the cell in which to set the formula. If you have selected the **Set formula for specified cell** option, specify the address of the cell in the field.
3. Enter the formula to set in the **Enter formula for specific cell** field.

5. Table operations

Perform operations such as sorting and filtering data in a table, inserting and deleting columns, and getting the table range.

Delete table column

Deletes a column in a table.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Specify the **Table name** from which you want to delete a column.
3. Select the **Name** or **Position** to specify the name or position of the column to delete.

Filter table

Filters data from a column in a table.

Procedure:

1. Specify the name of the session in which you want to perform the action in the **Session name** field.
2. Specify the name of the table from which you want to filter data in the **Table name** field.
3. Select the **Column name** to specify the name of the column or the **Column position** to specify the position of the column that contains the data you want to filter.
4. Select the **Number** option if the column you have specified contains number data.
5. Select the **Text** option if the column you have specified contains textual data.

Get table range

Gets the range of a table available in a worksheet and stores the output in a string variable.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Specify the **Table name** for which you want to get the range.
3. Select the options to specify whether you want to include a header and pivot table in the range and a variable to store the output.

Insert table column

Inserts a column in a table.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Specify the **Table name** in which you want to insert a column.
3. Specify the name of the column in the **Column name** field and the position where you want to insert the column in the **Column position** field.

Sort table

Sorts the data in a column of a table. This action enables you to sort numeric and text data.

Procedure:

1. Enter the name of the session used to open the current workbook with the **Open** action.
2. Specify the **Table name** for which you want to sort the data.
3. Select the **Column name** or **Column position** to specify the name or position of the column.
4. Select an appropriate option from the **Number** or **Text** list to specify the sort order.