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# GPV Interactive Report to MSExcel

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## Overview

### Introduction

The "GPV Interactive Report to Excel" APEX plugin provide simple export of IR-data into Microsoft Excel.

### Features at a Glance

These Interactive Reports features are supported:

- Correct export of data types (String/Date/Number)
- Filtering and Sorting
- Control Break
- Computations
- Aggregations
- Highlighting
- Auto adjustable Column Width
- Date/Number Formats
- Custom downloaded file name (see FAQ)
- Can be easy implemented for all Interactive reports in application (see FAQ)

### License

The "GPV Interactive Report to MSExcel" APEX plugin and IR\_TO\_XML, XML\_TO\_XSLX, IR\_TO\_MSEXCEL packages are currently available for use in all personal or commercial projects under both MIT and GPL licenses. This means that you can choose the license that best suits your project and use it accordingly. Both licenses have been included with this software.

### Legal Disclaimer

The program(s) and/or file(s) are supplied as is. The author disclaims all warranties, expressed or implied, including, without limitation, the warranties of merchantability and of fitness for any purpose. The author assumes no liability for damages, direct or consequential, which may result from the use of these program(s) and/or file(s).

### Found a bug

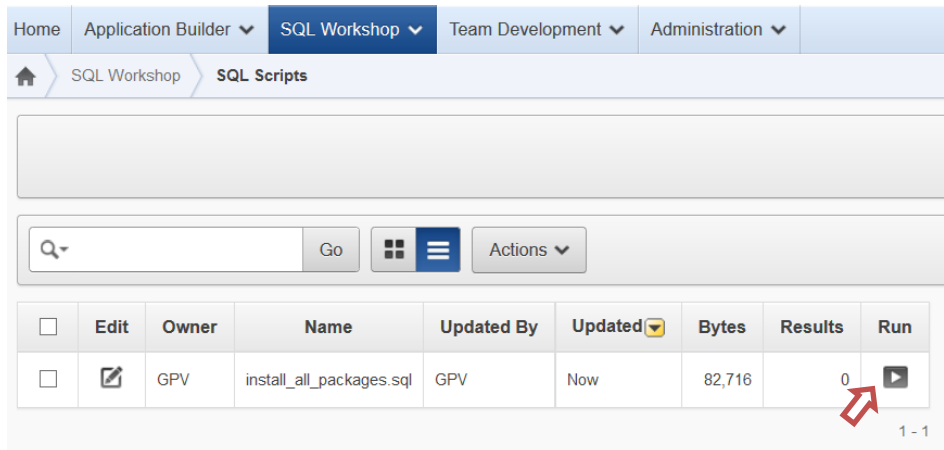
If you have found a bug, please send us debug information. To do this, set **Return Data** plugin options to **"Debug Information"**. Try to get your XML data again. You'll get text a file with debug information. Please send this file to [pavelglebov@outlook.com](mailto:pavelglebov@outlook.com). We'll try to fix this error as soon as possible.

### Installation

#### Install required package

This plugin requires IR\_TO\_XML, XML\_TO\_XSLX, IR\_TO\_MSEXCEL and AS\_ZIP packages. To install these packages, please use install\_all\_packages.sql all-in-one installation script.

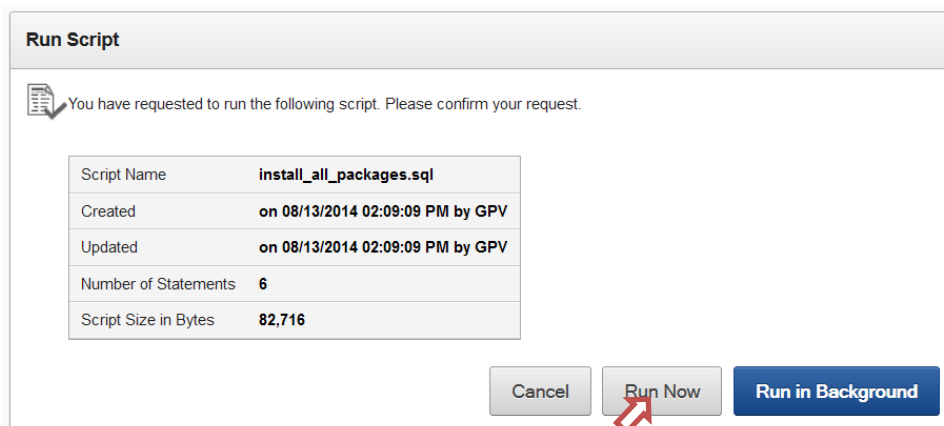
To do this, navigate to the “SQL-Workshop > SQL-Scripts”. Upload file **install\_all\_packages.sql**.



The screenshot shows the Oracle APEX SQL Workshop interface. The breadcrumb navigation is Home > Application Builder > SQL Workshop > SQL Scripts. Below the navigation is a search bar and a table of scripts. The table has columns: Edit, Owner, Name, Updated By, Updated, Bytes, Results, and Run. One script is listed: 'install\_all\_packages.sql' by 'GPV', updated 'Now', with 82,716 bytes and 0 results. A red arrow points to the 'Run' button (a play icon) in the last column of the script row.

<input type="checkbox"/>	Edit	Owner	Name	Updated By	Updated	Bytes	Results	Run
<input type="checkbox"/>		GPV	install_all_packages.sql	GPV	Now	82,716	0	

This script will be created all required packages. Run this script by pressing Run-icon.



The screenshot shows the 'Run Script' dialog box. It contains a message: 'You have requested to run the following script. Please confirm your request.' Below this is a table with script details. At the bottom are three buttons: 'Cancel', 'Run Now', and 'Run in Background'. A red arrow points to the 'Run Now' button.

Script Name	install_all_packages.sql
Created	on 08/13/2014 02:09:09 PM by GPV
Updated	on 08/13/2014 02:09:09 PM by GPV
Number of Statements	6
Script Size in Bytes	82,716

Press “Run Now” button.

# GPV Interactive Report to MSExcel


HomeApplication BuilderSQL WorkshopTeam DevelopmentAdministration

SQL WorkshopSQL ScriptsManage Script Results

Q

Go

Actions

<input type="checkbox"/>	Script	Run By	Started	Elapsed	Status	Statements	Bytes	View Results
<input type="checkbox"/>	install_all_packages.sql	GPV	2 minutes ago	1.06	Completed	6 of 6	0	

1 - 1

After execution take a look at execution results. At first open “Manage Script Results” tab by pressing on link in **View Results** column.

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SQL WorkshopSQL ScriptsResults

Script: install\_all\_packages.sql

Status: Complete

View: ☐ Detail ☒ Summary

Rows: 15

Go

Number	Elapsed	Statement	Feedback	Rows
1	0.63	CREATE OR REPLACE package ir_to_xml as --ver 1.4. --	Package created.	0
2	0.80	CREATE OR REPLACE package body ir_to_xml as subtype	Package Body created.	0
3	0.06	CREATE OR REPLACE package as_zip is /*****	Package created.	0
4	0.01	CREATE OR REPLACE package body as_zip is -- c_LOCAL_FILE_H	Package Body created.	0
5	0.05	CREATE OR REPLACE package xml_to_xslx -- ver 1.0. IS WIDTH	Package created.	0
6	0.35	CREATE OR REPLACE PACKAGE body XML_TO_XSLX IS STRING_HEIGH	Package Body created.	0
7	0.02	CREATE OR REPLACE package IR_TO_MSEXCEL as function get_x	Package created.	0
8	0.03	CREATE OR REPLACE package body IR_TO_MSEXCEL as XLS_DOW	Package Body created.	0

row(s) 1 - 8 of 8

Download

Statements Processed 8

Successful 8

With Errors 0

There should be no errors.

## Install plugin

Navigate to “Shared Components > Plug-ins” and click **Import**. [Herefrom](#) you can follow the menu to upload plugin-file “process\_type\_plugin\_gpv\_ir\_xml.sql” and to install the plug-in using the file above.

## GPV Interactive Report to MSExcel

### Using in your application

1. Create “On Load - Before Regions”-process “**Plug-Ins**” type.

Process Type   Process Attributes   Process   Messages   Process Conditions

Cancel   Next >

Page: 1 - Plugin Demonstration

Select the category of the process you wish to create:

☐ PL/SQL   ☐ Reset Pagination   ☒ Plug-ins

☐ Session State   ☐ Data Manipulation   ☐ Web Services

Process Type   Process Attributes   Process   Messages   Process Conditions

<   Cancel   Next >

Page: 1 - Plugin Demonstration

Select Plug-in:

☒ GPV Interactive Report to XML

Show Unsupported: No

Select “**GPV Interactive Report to XML**”.

Process Type   Process Attributes   Process   Messages   Process Conditions

<   Cancel   Next >

Page: 1 - Plugin Demonstration

\* Name: Get Excel

\* Sequence: 10

\* Point: On Load - Before Regions

\* Type: GPV Interactive Report to XML [Plug-in]

Give this process a name (for example “*Get Excel*”).  
Select execution “*Point*”: “*On Load - Before Regions*”

## GPV Interactive Report to MSEXcel

Process Type   Process Attributes   **Process**   Messages   Process Conditions

<   Cancel   Create Process   Next >

Page: **1 - Plugin Demonstration**

Point: **On Load - Before Regions**

Return Data: **Generated XML-data** ▾

Include Page Items: **Yes** ▾

List of Items to Include:

APEX Collection Name:

\* Maximum Rows:

"try again" message:

> Page Items

Press **"Create Process"**.

## GPV Interactive Report to MSeExcel

### Configuration Settings

#### Return Data

Choose "Excel XLSX" to return result of Interactive Report as MS-Excel file.

Choose "XML (Debug)" to return result of Interactive Report in XML format.

Choose "Debug TXT" to view debug information.

#### Maximum Rows

Rows greater than this value will not be exported.

To export all the rows set the value to 1000000000.

When empty - value from Interactive Report Attributes-> Maximum Row Count will be used.

Home Application Builder SQL Workshop Team Development Administration

Application Builder Application 26482 Page 1 Interactive Report Attributes

Home Region Definition Report Attributes Saved Reports Print Attributes

Region Name: Sample Interactive Report

**Pagination**

Pagination Type: Row Ranges X to Y

Pagination Display Position: Bottom - Right

Show Null Values as: -

Maximum Row Count: 1000

When more than maximum row data found message

The maximum row count for this report is #MAX\_ROW\_COUNT# rows. Please apply a filter to reduce the number of records in your query.

#### Download when click on (jQuery Selector)

Download starts when clicking on objects that are selected with this JQuery selector.

#### Replace standard IR XLS download

Replace standard IR download XLS menu functionality to download XLSX feature.

Download

Choose report download format:

CSV HTML Email XLS

Cancel

This functionality will be replaced



## GPV Interactive Report to MSeExcel

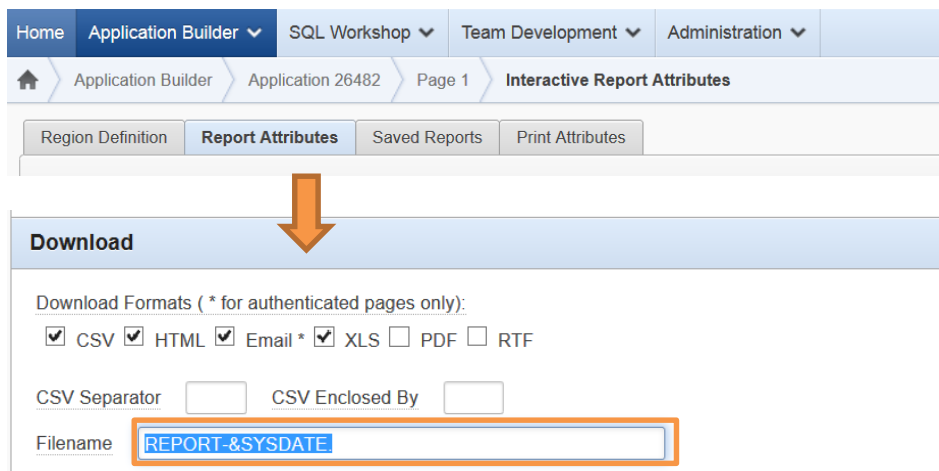
### Installing sample application

You can find sample application in SAMPLE\_APPLICATION folder in plugin archive.  
To install sample application please follow this [Instructions](#).

### FAQ (How To)

#### Replace default file name (Excel.xlsx) to the custom file name

When not empty, value from *Report Attributes*-> *Download*-> *Filename* field will be used.



Home Application Builder SQL Workshop Team Development Administration

Application Builder Application 26482 Page 1 Interactive Report Attributes

Region Definition Report Attributes Saved Reports Print Attributes

**Download**

Download Formats ( \* for authenticated pages only):

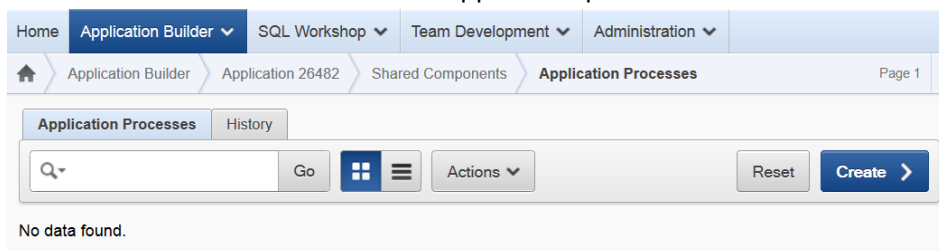
☒ CSV ☒ HTML ☒ Email \* ☒ XLS ☐ PDF ☐ RTF

CSV Separator  CSV Enclosed By

Filename

#### Easy implement this functionality to all Interactive report in your application

1. Install plugin and required packages.
2. Create “On Load: After Header” application process.



Home Application Builder SQL Workshop Team Development Administration

Application Builder Application 26482 Shared Components Application Processes Page 1

Application Processes History

Go

No data found.

## GPV Interactive Report to MSExcel

The top screenshot shows the 'Identification' step of the APEX process configuration wizard. It includes a progress bar with 'Identification', 'Source', and 'Conditionality' steps. The 'Name' field is 'Get Excel from IR', 'Sequence' is '1', 'Point' is 'On Load: After Header (page template header)', and 'Type' is 'PL/SQL Anonymous Block'. A 'Next >' button is in the top right.

The bottom screenshot shows the 'Source' step. It displays the same configuration as the top step. The 'Process Text' area contains the following PL/SQL code:

```
get_xlsx_from_ir_ext(p_maximum_rows => null,
                    p_jquery_selector => null,
                    p_download_type => 'E', -- E -> Excel XLSX, X -> XML (Debug), T -> Debug TXT
                    p_replace_xls => 'Y', --Y/N
                    p_custom_width => null
                    );
```

Please set your custom parameters or leave default settings.

```
get_xlsx_from_ir_ext(
    p_maximum_rows => null,
    p_jquery_selector => null,
    p_download_type => 'E', -- E -> Excel XLSX,
                        -- X -> XML (Debug),
                        -- T -> Debug TXT
    p_replace_xls => 'Y', --Y/N
    p_custom_width => null
);
```

Parameters description:

- `p_maximum_rows` - see *Maximum Rows* plugin parameter
- `p_jquery_selector` - see *Download when click on (jQuery Selector)* plugin parameter
- `p_download_type` - see *Return Data* plugin parameter
- `p_replace_xls` - see *Replace standard IR XLS download* plugin parameter
- `p_custom_width` - see FAQ

## GPV Interactive Report to MSExcel

When you want to exclude this functionality from couple of pages, use **Conditions**.

**Conditions**

Condition Type

Current Page Is NOT in Expression 1 (comma delimited list of pages) ▾

[PL/SQL] [item / column=value] [item / column not null] [item / column null] [request=e1] [page in] [page not in] [exists] [never] [none]

Expression 1

10,15,20

### Set custom columns widths

This functionality is only available, when plugin is implemented as application process.

For this please set `p_custom_width` parameter with required value. This is comma-delimited string with values, each value consist of column name and column width.

So, this string

PROJECT=151,TASK\_NAME=319,START\_DATE=133,

set

width = 151 to the column with name = "PROJECT",

width = 319 to the column with name = "NAME",

width = 133 to the column with name = "START\_DATE"

**Please do not forgive comma at the end of the string!**

Width are set in special units that are **approximately** equal to pixels.

### Adding custom download button

1. First create a button with certain **Static ID** and Action **"Defined by Dynamic Actions"**

**Attributes**

Static ID

GETEXCEL

Button Style

Template Based Button ▾

\* Button Template

Interactive Report Button ▾

Button Type

Normal ▾

Button CSS Classes

Button Attributes

**Action When Button Clicked**

Action

Defined by Dynamic Action ▾

Execute Validations

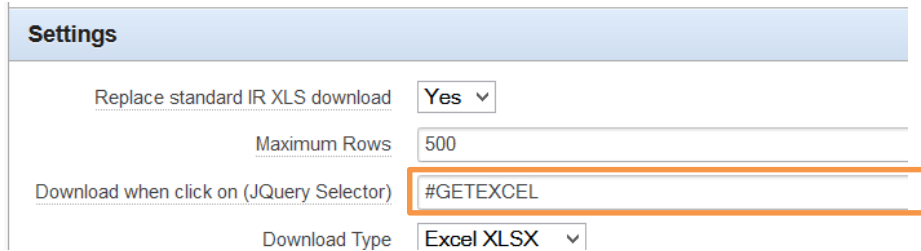
Yes ▾

Database Action

- No Database Action - ▾

## GPV Interactive Report to MSEExcel

2. Edit “Download when click on (JQuery Selector)” property of Process with type “GPV Interactive Report to MSEExcel [Plug-in]”. Add **Static ID** of the button with ‘#’-prefix.



**Settings**

Replace standard IR XLS download Yes ▾

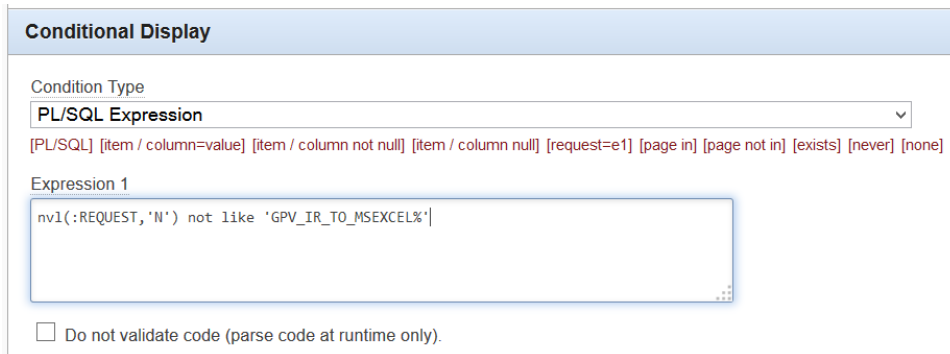
Maximum Rows 500

Download when click on (JQuery Selector) #GETEXCEL

Download Type Excel XLSX ▾

### How to exclude reports columns from export/make columns that are visible in Excel but not visible in Interactive Report

Use **Conditional Display** column property for this.



**Conditional Display**

Condition Type PL/SQL Expression ▾

[PL/SQL] [item / column=value] [item / column not null] [item / column null] [request=e1] [page in] [page not in] [exists] [never] [none]

Expression 1

nvl(:REQUEST, 'N') not like 'GPV\_IR\_TO\_MSEXCEL%'

☐ Do not validate code (parse code at runtime only).

Use `nvl(:REQUEST, 'N') not like 'GPV_IR_TO_MSEXCEL%'` Expression to exclude column from export, and `nvl(:REQUEST, 'N') like 'GPV_IR_TO_MSEXCEL%'` Expression to make column visible on export only.

### How to set Maximum Rows property for certain pages when plugin functionality are implemented to all Interactive report in your application.

! This hint references to “*Easy implement this functionality to all Interactive report in your application*” paragraph. Please read this paragraph first.

Typical task is to get users with special rights an ability to download unlimited data from Interactive Reports on certain pages.

If you use “**On Load: After Header**” application process to use functionality of this plugin on all Interactive report, parameter `p_maximum_rows` is the same for all pages in application. You need to find easiest way to modify this parameter for certain page. First you need to create protected hidden items on this pages. This items should have specific names (`P23_DOWNLOAD_MAX_ROWS` for page 23) and contains count of maximal downloaded rows depending on user rights (10000000000 for unlimited). To fill this items you need to create “**After Header**” calculation process.

## GPV Interactive Report to MExcel

For example:

Item Name	
Page:	23 Contact Search
* Item Name	<input type="text" value="P23_DOWNLOAD_MAX_ROWS"/>
Type	<input type="text" value="PL/SQL Function Body"/>
Computation Point	
* Sequence	<input type="text" value="30"/>
Computation Point	<input type="text" value="Before Header"/>
Source	
* Computation	<pre>if app_rights.has_role('UNLIM_CONTACT_EXPORT') = app_rights.YES then   return 100000000; else   return null; end if;</pre>

This calculation process gives limit of 100000000 rows users with **UNLIM\_CONTACT\_EXPORT** role, and set default value for others.

Now you need modify your “On Load: After Header” application process to use this variable automatically when it exist on page. Use a little hack: use substitution string in item name.

```
get_xlsx_from_ir_ext(
  p_maximum_rows => null,
  p_maximum_rows => :P&APP_PAGE_ID._DOWNLOAD_MAX_ROWS,
  p_jquery_selector => null,
  p_download_type => 'E', -- E -> Excel XLSX
  p_replace_xls => 'Y', --Y/N
  p_custom_width => null
);
```

Now, when current page is 23 and page item P23\_DOWNLOAD\_MAX\_ROWS exist, it will be used. Otherwise will be used default value, Maximum Row Count of current Interactive Report.

Maximum Row Count	<input type="text" value="1000"/>
When more than maximum row data found message	
<pre>The maximum row count for this report is #MAX_ROW_COUNT# rows. Please apply a filter to reduce the number of records in your query.</pre>	