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Overview

Introduction

The "GPV Interactive Report/Grid to MSExcel v2" APEX plugin provides a simple data export from Interactive Report or Interactive Grid into Microsoft Excel.

Features at a Glance

These features of Interactive Report/Grid 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/Grids in an application (see FAQ)

License

The "GPV Interactive Report/Grid to MSExcel" APEX plugin and IR_TO_MSEXCEL, IR_TO_XLSX packages are currently available for use in all personal or commercial projects under MIT license.

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).

Problem solving and diagnosis

If plugin does not work, please first try to find an existing solution:

1. **For all Errors**

Check the version of the plugin. Make backup of your version, download and install the newest one directly from the GitHub.

2. **For all ORA-Errors**

First try to download the same data without plugin using standard APEX functionality, for example, as CSV. If you still get an error – correct the query of the Interactive Report. Check it for all the data, not only for first N-rows usually displayed in the report UI.

3. **ORA-06508: PL/SQL: could not find program unit being called**

Check step 2 and 1 first.

This error means, that rights are not proper configured in the system. First try to give EXECUTE rights to SYS.UTL_FILE and SYS.DBMS_LOB packages.

```
GRANT EXECUTE ON SYS.UTL_FILE TO #USER#;
```

```
GRANT EXECUTE ON SYS.DBMS_LOB TO #USER#;
```

where #USER# should be replaced to the APEX Application Parsing Schema (Parsing Schema != APEX Schema).

For configurations, where APEX Application Parsing Schema differs from the schema where plugin-packages are installed, DBA may should give EXECUTE – grants to all the packages (AS_ZIP, IR_TO_XLSX, IR_TO_XLSX, IR_TO_MSEXCEL) for APEX Application Parsing Schema. Please pay attention, that packages are defined with AUTHID current user – statement. Please give this information to the DBA.

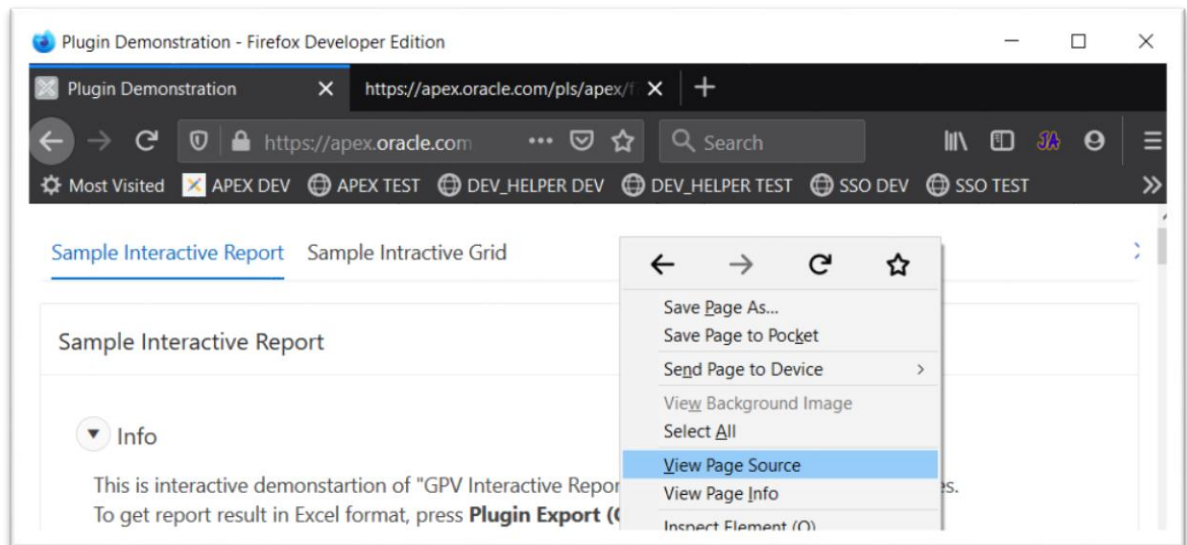
4. **No XLSX-Icon is displayed**

3.1. Check step 2 and 1.

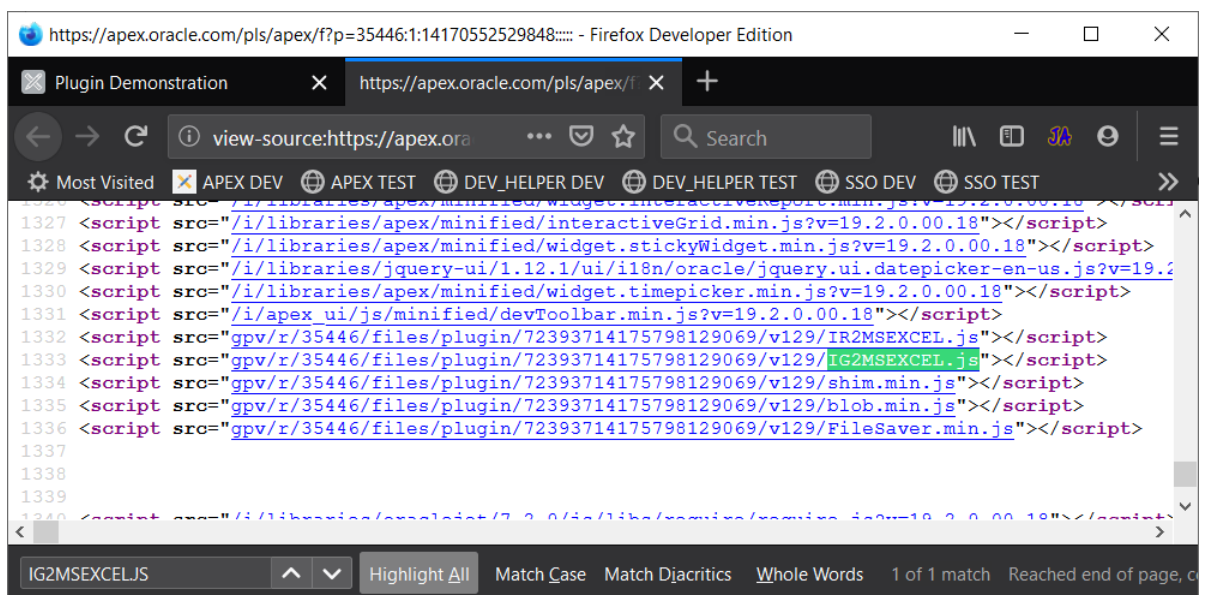
3.2. Check that the page does not have any JavaScript – error – use browser console.

3.3. Check that you browser uses the actual version of JavaScript-files (IG2MSEXCEL.js and IR2MSEXCEL.js). Open page source (Right-click the page and click on “View Page Source”),

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than find the link to the file



, open it and save file to the local file system. After compare the saved file with the source file downloaded with the plugin.

This difficult and ugly method is the most reliable – because it covers all possible issues starting from the CDN to the browser cache and the false server case.

5. Getting debug information

From plugin-version 3.20 plugin uses standard APEX logging instead of custom logging (<https://docs.oracle.com/en/database/oracle/application-express/19.2/html/db/utilizing-debug-mode.html#GUID-65F66F2B-ADCB-41B2-8EEE-3B7D7603F50C>). All debug information related to plugin has prefix GPV_XLSX and can easily be filtered.

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Reporting a problem

If you found a bug and have enough skills to fix it – please make a pull request on GitHub. The contributions are always welcome. A lot of people made this plugin better – not only bug fixes but huge and sometimes difficult improvements.

Another possibility is to create an issue on GitHub

https://github.com/glebovpavel/IR_to_MSExcel/issues

Please **make a simple dummy application** on apex.oracle.com to reproduce the error and add a link to the issue description. I understood that it can be expensive but it is **the only way to start fixing** the issues. It is not possible to fix something without having a possibility to reproduce it. If the problem is reproducible only on older version of APEX – please attach a link to the any external resource where source – file of the application is saved.

Installation

Install required packages


This plugin requires IR_TO_XSLX, IR_TO_MSEXCEL, APEXIR_XLSX_PKG.sql and AS_ZIP packages. To install these packages, please use the all-in-one installation script `install_all_packages.sql`.

To do this, navigate to the “SQL Workshop > SQL Scripts”. Upload file `install_all_packages.sql`.

	Edit	Owner	Name	Created	Updated By	Updated	Bytes	Results	Run
<input type="checkbox"/>		GPV	install_all_packages.sql	3 minutes ago	GPV	3 minutes ago	129,316	0	

This script will create all required packages. Run this script by pressing the Run-icon.

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Run Script

You have requested to run a script containing statement(s) SQL Workshop will ignore. Please confirm your request.

Script Name	install_all_packages.sql
Created	on 12/12/2017 06:12:22 AM by GPV
Updated	on 12/12/2017 06:12:23 AM by GPV
Number of Statements	8
Script Size in Bytes	128,812

Line Number	Unknown Statement
17	

Cancel

Edit Script

Run Now

Press “Run Now” button.

ORACLE

App Builder

SQL Workshop

Team Development

Packaged Apps

FO EX

SQL Scripts \ Manage Script Results


Q

Go

Actions

Delete Checked

Selected File = 11890265231290931

	Script	Run By	Started	Finished	Elapsed	Status	Security Group Id	Statements	Bytes	View Results
<input type="checkbox"/>	install_all_packages.sql	GPV	64 minutes ago	12/12/2017	0.67	Completed	11260317213760192	8 of 8	0	

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After execution take a look at the execution results. Open the “Manage Script Results” tab by pressing the link in the **View Results** column.

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ADMIN

SQL Scripts \ Results

Script: install_all_packages.sql Status: Complete

View: ☐ Detail ☒ Summary Rows: 15 Go Edit Script


Number ↑	Elapsed	Statement	Feedback	Rows
1	1.17	CREATE OR REPLACE PACKAGE "AS_ZIP" IS /*****	Package created.	0
2	0.43	CREATE OR REPLACE PACKAGE BODY "AS_ZIP" IS -- c_LOCAL_	Package Body created.	0
3	0.11	CREATE OR REPLACE PACKAGE ir_to_xlsx AUTHID current_user I	Package created.	0
4	2.13	create or replace PACKAGE BODY IR_TO_XLSX as -- general;	Package Body created.	0
5	0.09	CREATE OR REPLACE PACKAGE ir_to_msexcel AUTHID current_us	Package created.	0
6	0.52	create or replace PACKAGE BODY IR_TO_MSEXCEL as SUBTYPE t	Package Body created.	0

Download

row(s) 1 - 6 of 6

6
Statements Processed

6
Successful

 0
With Errors

There should be no errors.

Additionally (very rare) you should get access to the SYS.UTL_FILE and SYS.DBMS_LOB packages.

GRANT EXECUTE ON SYS.UTL_FILE TO #USER#;

GRANT EXECUTE ON SYS.DBMS_LOB TO #USER#;

Where #USER# should be replaced to APEX Application Parsing Schema.

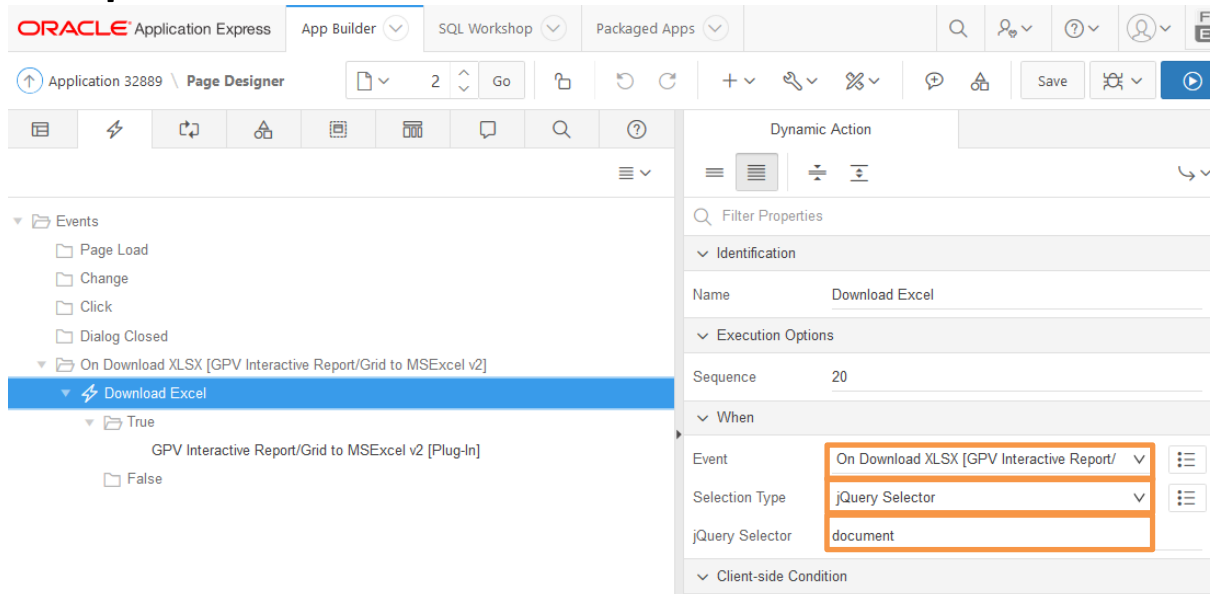
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Install plugin

Navigate to “*Shared Components > Plug-ins*” and click **Import**. [This Oracle document](#) shows you how to upload the plugin-file “dynamic_action_plugin_at_frt_gpv_ir_to_msexcel.sql” and to install the plug-in using the file above.

Using in your application

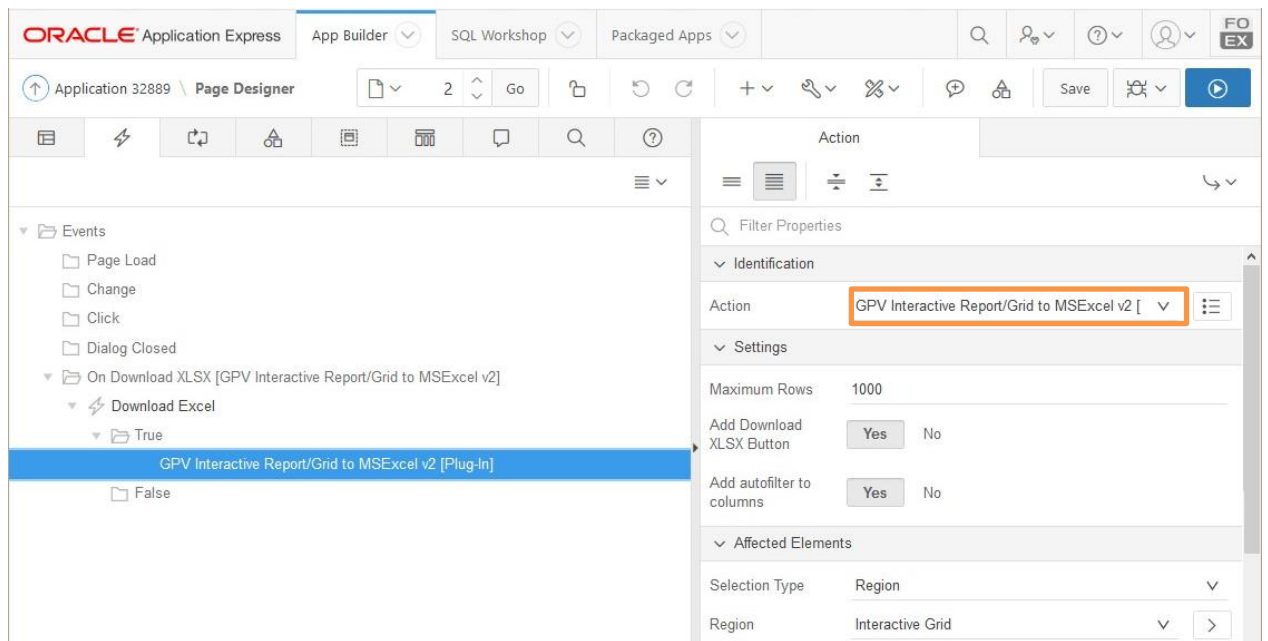
1. Create a new Dynamic Action on Event “**On Download XLSX[GPV Interactive Report/Grid to MS Excel v2]**”.



Set

- “*Selection Type*” => “**jQuery Selector**”
- “*jQuery Selector*” => “**document**”

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Select “Action” => “GPV Interactive Report/Grid to MS Excel v2”

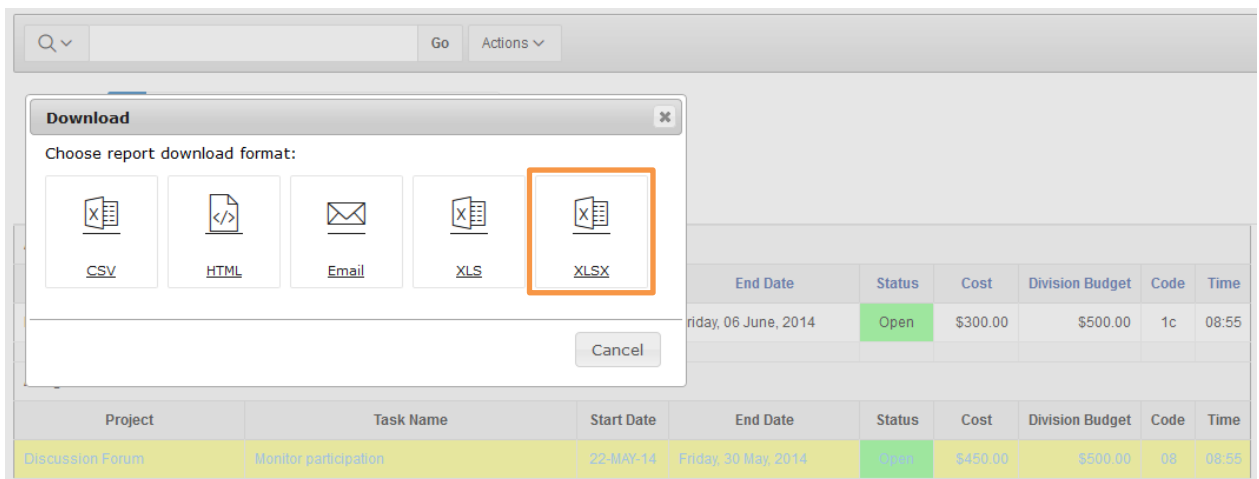
The plugin is ready to use with the default settings.

How it works for Interactive Reports

The plugin adds “Download XLSX” Icon to the “Download menu”. By pressing on this icon the user gets an XLSX-file.

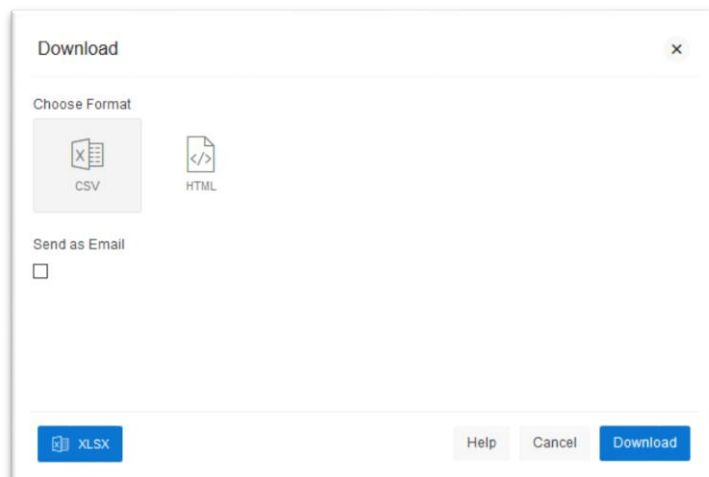
Customer Data					Actions			
Customer Id	Cust First Name	Cust Last Name	Cust Street Address1	Cust Street Address2	Cust Postal Code	Cust Email	Phone Number1	Phone Number2
1	John	Dulles	45020 Aviation Drive	-	20166	john.dulles@email.com	703-555-2143	703-555-8967
2	William	Hartsfield	6000 North Terminal Parkway	-	30320	-	404-555-3285	-
3	Edward	Logan	1 Harborside Drive	-	02128	-	617-555-3295	-
4	Frank	OHare	10000 West OHare	-	60666	-	773-555-7693	-
5	Fiorello	LaGuardia	Hangar Center	Third Floor	11371	-	212-555-3923	-

GPV Interactive Report/Grid to MSeExcel v2



How it works for Interactive Grids

The plugin adds "XLSX"-Button to the Actions => Download menu of Interactive Grid. By pressing on this button the user instantly gets an XLSX-file.



Configuration Settings

Return Data – for Interactive Report only

Choose "Excel XLSX" to return the Interactive Report as a MS-Excel file.

Choose "Debug TXT" to view debug information.

GPV Interactive Report/Grid to MSEXcel v2

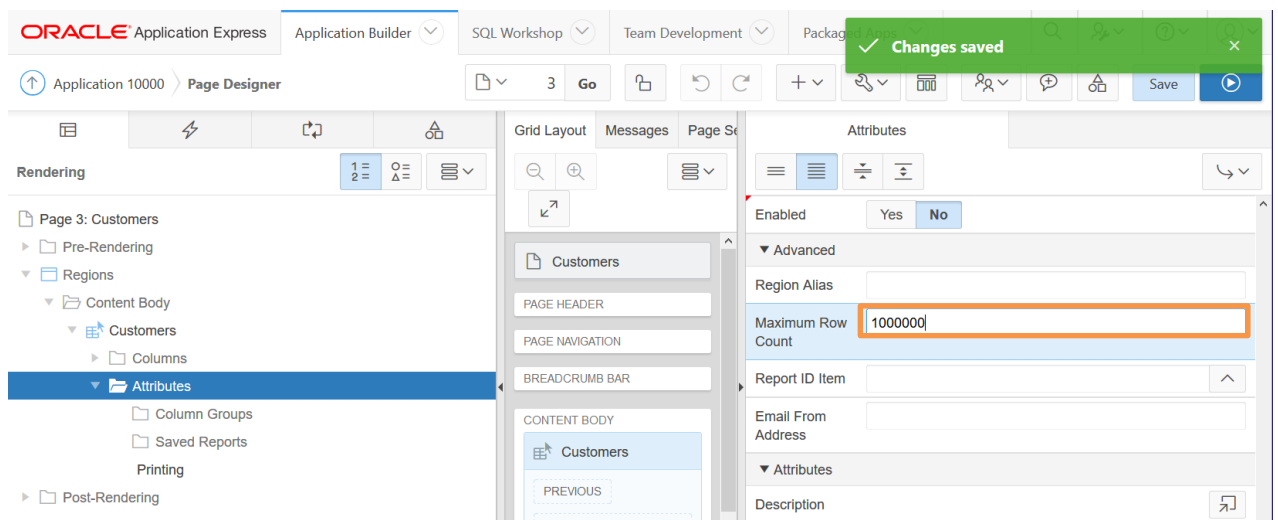
Choose “commi235 Render Engine” to use a separate render engine from Moritz Klein (needs to be installed separately).

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.



Export Hyperlinks - for Interactive Report only

If is set to “As Hyperlinks”, then IR columns with type “Link” are exported as Links (URL).

Custom Column Width - for Interactive Report only

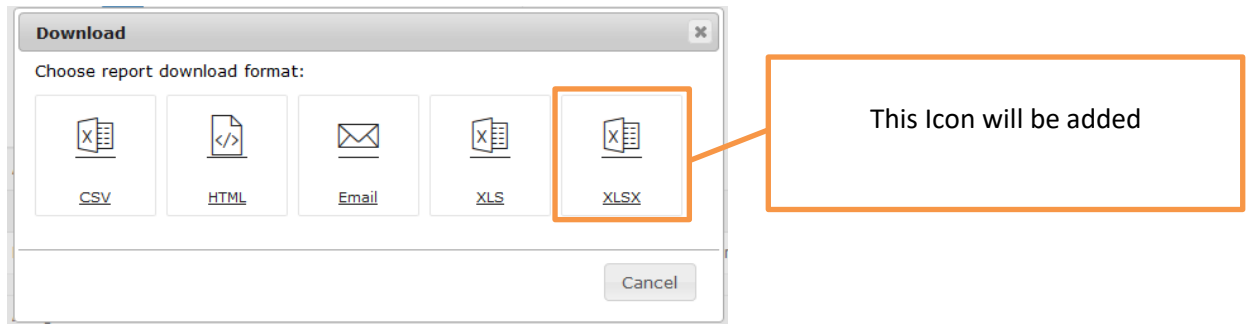
Comma - delimited list of columns with their widths.

For example, if you want to set width of COMPANY_NAME column to the 15 (Excel width points), and CTL column to the 6 points, you should fill this parameter as:

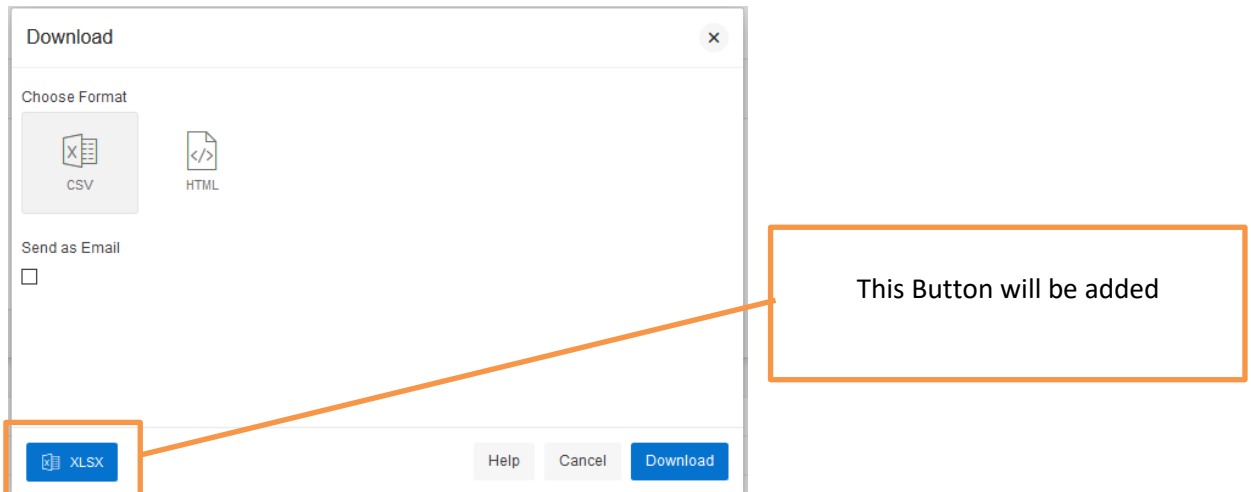
COMPANY_NAME:15,CTL:6

Add Download XLSX Icon to “Download Dialog”

For Interactive Report:



For Interactive Grid:



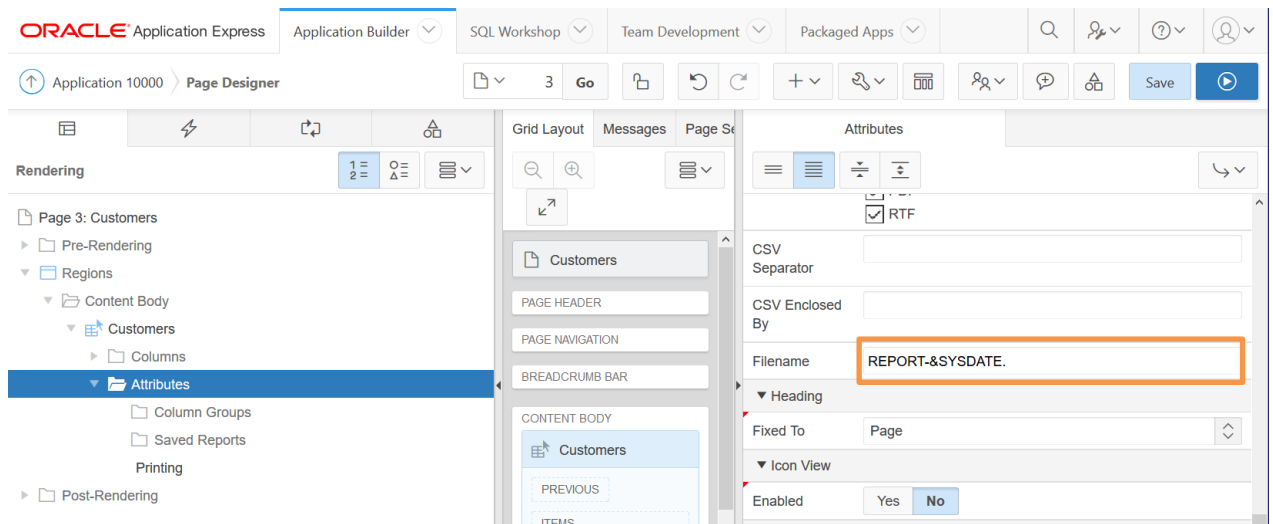
IG Fetch Portion (Interactive Grid only)

Interactive Grid fetches data from Database by portions of rows. Here one can set a size of each portion of rows. Default – 1000.

FAQ (How to)

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

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



Use this functionality for all Interactive Reports or Interactive Grids in your application

Install the plugin on Page 0 as described above in “Using in your application” section.

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

The plugin supports Interactive Grids and interactive Reports simultaneously.

Adding a custom download button

1. First create a Button
2. Create Dynamic Action on Event “Click” for this Button.
3. Create True Action and set “Action” to “GPV Interactive Report/Grid to MSEXcel v2 [Plug-in]”.
4. In “Affected Elements” Section set “Selection Type” => “Region”.
5. Set “Region” to your Interactive Report or Interactive Grid region.

GPV Interactive Report/Grid to MSeExcel v2

The screenshot shows the Oracle APEX Page Designer interface. On the left, the 'Page 2: Interactive Grid' structure is visible, including 'Regions', 'Breadcrumbs', 'Content Body', 'Interactive Grid', 'Columns', 'Attributes', 'Region Buttons', 'XLSX', 'Dynamic Actions', and 'Download XLSX'. The 'Download XLSX' dynamic action is selected, showing its configuration in the 'Action' panel on the right. The configuration includes:

- Identification:** Action is set to 'GPV Interactive Report/Grid to MSeExcel v2 [Plug-In]'.
- Settings:** Maximum Rows is 1000; Download Type (IR) is Excel XLSX; Add Download XLSX Button is Yes; Add autofilter to columns is Yes.
- Affected Elements:** Selection Type is Region; Region is Interactive Grid.

How to exclude report columns from export/make columns that are visible in Excel but not visible in Interactive Report (not for Interactive Grid)

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

The screenshot shows the Oracle APEX Page Designer interface. On the left, the 'Second Interactive Report' structure is visible, including 'Columns', 'CUSTOMER_ID', 'CUST_FIRST_NAME', 'CUST_LAST_NAME', 'CUST_STREET_ADDRE', 'CUST_CITY', 'CUST_POSTAL_CODE', 'CUST_EMAIL', 'PHONE_NUMBER1', 'PHONE_NUMBER2', and 'URL'. The 'CUST_FIRST_NAME' column is selected, showing its configuration in the 'Column' panel on the right. The configuration includes:

- Group By:** Yes; **Pivot:** Yes.
- Server-side Condition:** Type is PL/SQL Expression; PL/SQL Expression is `not IR_TO_MSEXCEL.is_ir2msexcel`.
- Security:** Authorization Scheme is - Select -; Escape special characters is Yes.

Use `not ir_to_msexcel.is_ir2msexcel` Expression to exclude column from export,

GPV Interactive Report/Grid to MSEXcel v2

And `ir_to_msexcel.is_ir2msexcel` Expression to make column visible on export only.

How to uninstall plugin

First make sure that the plugin are not used in your application components any more:

ORACLE Application Express | App Builder | SQL Workshop | Packaged Apps

Application 102065 > Shared Components > Plug-in Utilization

Plug-ins | **Utilization** | History

Search: [] Go Actions [] Reset

Name ↑	Component Name	Component Type	Page	Page Name	Region
GPV Interactive Report to MSEXcel v2	New	Dynamic Action	2	test IG	-

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If Utilization Report don't contain "GPV Interactive Report/Grid to MSEXcel v2" records, on plugin-page appears Delete – Button.

ORACLE Application Express | App Builder | SQL Workshop | Packaged Apps

Application 102065 > Shared Components > Plug-ins > Create / Edit

Plug-in: GPV Interactive Report to MSEXcel v2 | Cancel | Delete | **Apply Changes**

Show All | **Name** | Subscri... | Source | Callbac... | Suppor... | Standa... | Standa... | Custo... | Files | File UR... | Events | Inform... | Help Text | Comme...

Name

* Name: GPV Interactive Report to MSEXcel v2 ?

* Internal Name: AT.FRT.GPV_IR_TO_MSEXCEL ?

* Type: Dynamic Action ?

* Category: Miscellaneous ?

Subscription

Reference Master Plug-in From: [] ^ ?

☒ Refresh

Drop all plugin packages:

```
drop package IR_TO_XLSX;  
drop package IR_TO_MSEXCEL;  
drop package APEXIR_XLSX_PKG;  
drop package AS_ZIP;
```