

SnapShot! 5.0 for the Power Platform Release Notes

The following changes and additions have been made to SnapShot! for the Power Platform.

New Reports

- User without security privileges
 - This is just a text file that lists users without security roles. At some future point, I will probably add this to one of the other Excel reports. The report exists in the **Security** folder.
- Business Rules
 - The JavaScript that is used to run a Business Rule for an entity is now exported and placed in the **Business Rules** folder, below Customizations.
 - The business rule code for each entity is exported to a single file with the name [entity]-Business rules.js
- Form Detail
 - These reports, in Microsoft Word format, contain information about the components and layout of the actual forms.
 - The reports are found below Customizations, FormDetail, [entity]
 - i.e., Customizations\FormDetail\account
 - There will be one Word document per form
- Ribbon Commands
 - This report contains all the custom commands attached to the ribbons within the product. The main idea here is that if you have a custom ribbon command, there is also a piece of just JavaScript attached.
- Customization Analysis
 - This is a summary of customizations that I created to help with the migration to the Unified Interface
 - **Custom Field Summary** is a summary of custom fields found in the organization
 - **Customization Analysis** lists counts, per entity, of custom fields, JavaScript web resources, and Ribbon commands
 - **Unused Web Resources** are web resources that, according to the system, are not referenced anywhere.
 - **Images in Use** lists **PNG, JPG, and ICO**-format images that are in use. These must be converted to SVG format for use in the Unified Interface.

Bug Fixes

- I found a fascinating bug with the **User Privileges** reports: I use the user's name to construct the file name and if you happen to have two users with the same name, then the second one will overwrite the first. This is a very unusual use-case and I doubt that it will actually surface in most cases, but should it, the secondary files will be named ...User(1), ...User(2), etc.
- The **Fields** report was not correctly documenting Rollup and Calculated fields. The oversight has been corrected.
- The Security report filename for **Positions** was misspelled. This was corrected.

Changes

- Connections
 - I have moved the connection to the Dynamics organization to a different toolset. This is the connection toolset that the XrmToolbox uses. This will provide a much more robust connection methodology and allow us to connect using a variety of methods, not just username and password, as we have now.
- CDS Support
 - SnapShot! now supports pure CDS environments, not just those that are Dynamics 365.
- General
 - The status bar updates more frequently and appropriately to keep you informed of the actual operation being conducted.
 - I continued to make changes to the data extraction to make sure that only the data that is required, is being extracted.
 - I modified the data extraction for **User Security Roles** to exclude **disabled users**. Since SnapShot! no longer generates security role reports for disabled users, the data was unnecessary. This should result in an overall speed improvement when generating security-related reports.
 - Field extraction time has been improved over 50%.
 - I realized that some of the numerical data wasn't being properly formatted in Excel. I changed the worksheet generation process to set the type of cell for numbers to an appropriate number format.
- Web Resources
 - There is now an option to **Check Dependencies** which will check the usage of JavaScript and HTML web resources. This allows you to see which web resources are being utilized.

***NOTE:** This check only returns information that the Dynamics system is aware of and should always, and only, be used as a starting point in an investigation. JavaScript web resources referenced from within an HTML web resource fall outside of this check and may need to be manually verified.*
- Generate JavaScript Events
 - This functionality has been removed.
- Generate Empty JavaScript Events
 - This functionality has been removed.
- JavaScript Function Reference
 - This functionality was removed because too many issues were being encountered with JavaScript that had been "minified." It may be re-added later.

- Reports
 - OptionSets
 - Added a **Description** column to extract the value of the Description for each individual OptionSet value.
 - Forms
 - I was not considering the possibility of people disabling forms, which you can do, so I was documenting them as well. I have added a filter to exclude inactive Forms.
 - Fields
 - The **Field Type** column has been renamed **Data Type**.
 - The **Source Type** column has been renamed **Field Type** and moved to the right of **Data Type**.
 - All fields should now have a Field Type of: Simple, Rollup, or Calculated. The exceptions are:
 - Floating Point Number
 - Lookup
 - Multiple Lines of Text
 - Option Set
 - Owner
 - Party List
 - Primary Key
 - State
 - Status Reason
 - Timestamp
 - The Fields report has some interesting inter-relationship between other data types, namely Users, Security Roles, and Forms, which earlier versions of SnapShot! were extracting, even though, in some cases, the data was not being used.

After some investigation, I think I narrowed down the instances where extra data points were needed an only in those circumstances do I retrieve that data.

- I am purposefully removing fields from the reports for Microsoft solutions, such as Field Service, and from certain third parties. This list of prefixes can be modified by **SnapShot.exe.config** and changing the **IgnorePrefixes** list.

The current list is:

```
cdi_,cobalt_,adx_,msdyn_,msfp_,tcs_,trd_,afk_,au_,docusign_,ms_,msdyncrm_,msevtmgt_,msgdpr_
```

You may modify this list to suit your purposes. Just include the publisher prefix, along with the underscore character. This is a comma-separated value list.

- Customizations
 - The customizations report was getting a little too big to manage so I broke it into three separate files:
 - Metadata
 - User Interface
 - Business Processes

You can see what is where in the Output File Structure and Contents section at the end of this document.

- JavaScript Library Usage
 - Added libraries that were being utilized on the Ribbon.
- JavaScript Function Reference
 - Added information for functions and libraries that were being utilized on the Ribbon.
- Security Roles
 - Sorted the **Security Roles by Team and User** tab by the **Name** column.
- User Privileges (full and raw)
 - Reports for disabled users will no longer be generated. I realized this was probably just a complete waste of time, effort, and space.
 - The processing of these reports has been improved roughly 35-70%.
- User Email Settings
 - Now sorts alphabetically by User
- User Settings (Administrative Report)
 - Now sorts alphabetically by User
- Duplicate Detection Settings
 - Renamed to match the SnapShot! Report naming convention

- Business Units
 - Removed the following fields:
 - BillToCity
 - BillToCountry
 - BillToPostalCode
 - BillToState
 - BillToStreet1
 - BillToStreet2
 - BillToStreet3
 - Email
 - Fax
 - MainPhone
 - OtherPhone
 - ShipToCity
 - ShipToCountry
 - ShipToPostalCode
 - ShipToState
 - ShipToStreet1
 - ShipToStreet2
 - ShipToStreet3
 - WebSite

- Users
 - Exposed the User ID column in the report.
 - Updated the License Type list to add the following types:
 - Sales (9)
 - Service (10)
 - Field Service (11)
 - Project Service (12)
 - Removed the following fields from the report:
 - EMail2
 - EmailAccessTypeIncoming
 - EmailAccessTypeOutgoing
 - Fax
 - HomePhone
 - MailingCity
 - MailingCountry
 - MailingPostalCode
 - MailingState
 - MailingStreet1
 - MailingStreet2
 - MailingStreet3
 - MobileAlertEmail
 - OtherCity
 - OtherCountry
 - OtherPhone
 - OtherPostalCode
 - OtherState
 - OtherStreet1
 - OtherStreet2
 - OtherStreet3
 - PreferredPhone

- Web Resources
 - Previously I was restricting the list of web resources to those defined in the Active Solution. This restriction has been removed. Now all web resources, regardless of solution will be listed. Any Microsoft-related web resources will automatically be excluded.
 - Added a Dependencies column to track usage of Script (Jscript) and HTML web resources.
 - Added the Publisher's Prefix column
 - Web Resources are ignored if the name begins with:
 - msxb_
 - msdyn_
 - cc_shared
 - cc_MscrmControls
 - Web Resources are ignored if the Publisher Prefix begins with:
 - Msdyn
 - Msfp
 - Msdynce
 - Mbs
 - Li
 - Web Resources are ignored if the Publisher's Name begins with:
 - MicrosoftCorporation
 - Added new Web Resource types for:
 - Vector format (SVG)
 - String (RESX)
 - Added code that would not export JavaScript web resources whose name begins with the following prefixes:
 - cc_shared
 - msxb_
 - msdyn_
 - cc_shared
 - cc_MscrmControls

These are internal Microsoft components.

- Entities with Customizations
 - Renamed to **Custom Field Summary**

- Export JavaScript
 - The expansion of the **web resource prefixes ignore list** means that fewer non-essential JavaScript files are exported. (see **Web Resources** section below)
 - Paths are now honored. If the Web Resource has a path in the name, folders will be created to match that path.

For example, we have a web resource named: **myslv/core/scripts/core.js**

SnapShot! Will create the following folder system:

```

ForDevelopers
  JavaScript
    myslv
      core
        scripts
          core.js

```

- Plugin Steps
 - Microsoft-related plugin steps are now ignored. Their name usually begins with:
 - Microsoft.Crm
 - Microsoft.Dynamics
 - Adxstudio.Xrm
 - ScheduleCommon.Plugins
 - Microsoft.Xrm
 - ActivityFeeds
- Custom Workflow Activities
 - Microsoft-related custom workflow activities are ignored. Their **assemblyname** begins with:
 - Microsoft.Crm
 - Microsoft.Dynamics
 - Adxstudio
- Auditing
 - The list of Audited Entities was removed, mostly because it was redundant
 - The remaining report, **Audited Fields**, has been added to the **Customization Metadata** report.
 - Audited Fields now sorts by **Entity Logical Name**, then **Field Logical Name**
- Processes (workflows)
 - Added the type:
 - Modern Flow (5)

Output File Structure and Contents

Within the main folder are subfolders:

- **Administration** contains
 - Administration Overview report, which contains
 - Auto-Numbering
 - System Settings-General
 - System Settings-Calendar
 - System Settings-Formats
 - System Settings-Auditing
 - System Settings-Email
 - System Settings-Marketing
 - System Settings-Customization
 - System Settings-Outlook
 - System Settings-Goals
 - System Settings-Sales
 - System Settings-Service
 - System Settings-Synchronization
 - System Settings-Internal (these are internal settings not visible through the UI)
 - System Settings-Features (some of which are previews)
 - System Settings-Mobile
 - Fiscal Year Settings
 - System Settings-Privacy
 - System Settings-SharePoint
 - System Settings-Security
 - System Settings-Other (anything that remains after all the above are documented)
 - User Settings
 - Recurring System Jobs
 - Duplicate Detection Settings

- **Business Management** Contains
 - Business Management Overview report, which contains
 - Connection Roles
 - Templates
 - Reports
 - Queues

- **Customizations** contains
 - Customizations-Metadata report, which contains
 - Entities
 - Fields
 - Option Sets
 - Relationships
 - Entity Maps
 - Attribute Maps
 - Auditing Fields
 - Customizations-User Interface
 - Views
 - Forms
 - Web Resources
 - Jscript Library Usage
 - Jscript Function Reference
 - Ribbon Commands
 - System Charts
 - User Charts
 - Publishers
 - Solutions
 - Themes
 - Customizations-Business Processes
 - Plug-in Assemblies
 - Plug-in Steps
 - Custom Workflow Activities
 - Processes
 - Customization Analysis
 - Custom Field Summary
 - Customization Analysis
 - Unused Web Resources
 - Images in Use
 - View Detail Folder
 - Form Detail Folder
 - Business Rules

- **EmailConfiguration** contains
 - Email Configuration report, which contains
 - User Email Settings
 - Email Server Profiles
 - Mailboxes

- **ForDevelopers** contains
 - Empty JavaScript Event handlers
 - Jscript events converted to code
 - Raw dump of plug-in configurations
 - Automation testing matrix report
 - JavaScript files

- **Security** contains
 - Security Roles
 - Security Roles raw data
 - User Privileges
 - User Privileges raw data
 - Security Privileges by entity
 - Business Units' overview
 - Security Roles overview
 - Security Overview
 - Field Security Profiles
 - Field Permissions
 - Team membership
 - Teams
 - Users and Teams security roles
 - Users
 - Positions
 - Access Team Templates