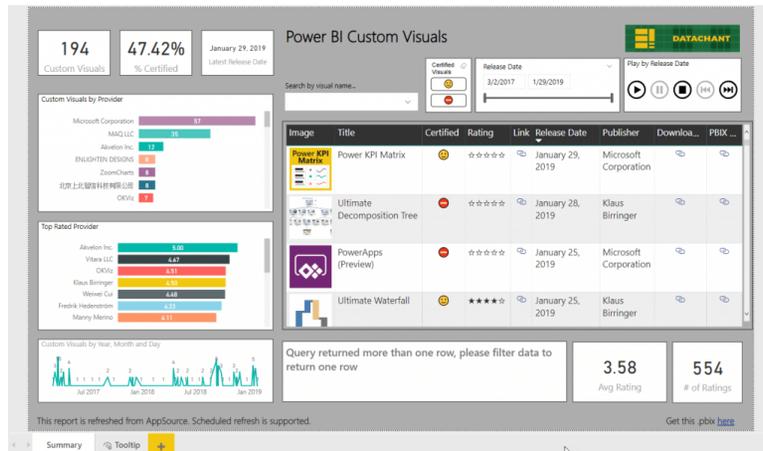
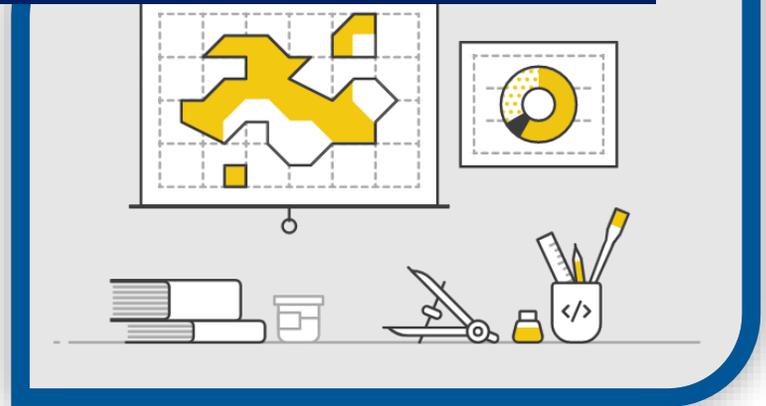


AppSource Power BI Template Apps - Customization, Development and Consulting Practice



Cognitive Convergence

<http://www.cognitiveconvergence.com>

+1 4242530744

shahzad@cognitiveconvergence.com

Cognitive Convergence is Subject Matter Expert in Office 365, Dynamics 365, SharePoint, Project Server, Power Platform: Power Apps-Power BI-Power Automate-Power Virtual Agents. We offer Power BI consulting services covering solution architecture refinement, customization, integration, transformation, visualization and analytics to uncover insights hidden within data and enhance data exploration.

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OBJECTIVES

This paper will discuss different template apps of Power BI, available on AppSource. A brief introduction along with their usage and development will discuss here.

BACKGROUND

The new Power BI template apps enable Power BI partners to build Power BI apps with little or no coding, and deploy them to any Power BI customer which they can download from AppSource. If create Power BI reports and dashboards, can become a template app builder and builds and packages analytical content into an app. May deploy app to other Power BI tenants through any available platform, such as AppSource, or by using it in own web service. As a builder have the possibility to create a protected analytics package for distribution.

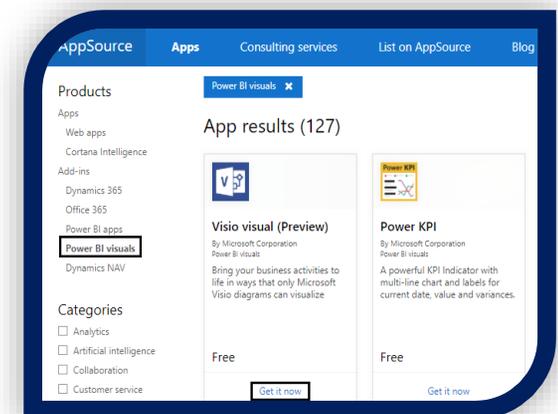
Power BI tenant admins govern and control who in their organization can create template apps, and who can install them. Those users who are authorized can install template app, then modify it and distribute it to the Power BI consumers in their organization.

APPSOURCE POWER BI TEMPLATE APP

Microsoft and community members contribute Power BI template apps for public benefit, and publish them to the AppSource. These apps can download and a Power BI report from them. Microsoft has tested and approved these Power BI apps for functionality and quality.

What is AppSource?

AppSource is the place for apps, add-ins, and extensions for Microsoft software. AppSource connects millions of users of products such as Microsoft 365, Azure, Dynamics 365, Cortana, and Power BI, to solutions that help them get work done more efficiently and insightfully than before.



Power BI template apps

The new Power BI template apps enable Power BI partners to build Power BI apps with little or no coding, and deploy them to any Power BI customer. As a Power BI partner, create a set of out-of-the-box content for customers and publish it. Build template apps that allow customers to connect and instantiate within their own accounts. As domain experts, they can unlock the data in a way that's easy for their business users to consume. The Power BI Template Apps enable a new breed of Analytic capabilities and consulting services. Microsoft partners can create innovative and reusable solutions that skip the arduous development cycles of data preparations and modeling and engage their clients with immediate insights. The potential here is limitless. Power BI templates, allow to publish some paid reports as Template Apps, and allow readers to easily consume them and share in their organization without sharing the Power BI report files. This special capability enables them to treat my source code (e.g. M queries, and advanced DAX in the .pbix files) as an intellectual property and keep it intact.

Improve customer experience with insights

Template Apps helps customers get more value from products and solutions. Microsoft provides tools for managing the complete app lifecycle, enabling to:

- Test internally in own development workspace, promote the app to pre-production to test with external customers, and submit it to AppSource for validation. Packaging dashboards and reports for products and solutions in one bundle is easy to do right from Power BI.
- Enable customers to connect to app data and metadata and connect to third-party data sources for an even richer experience.
- Publish and market app on AppSource using the Cloud Partner Portal, with complete control over who can access code and export data.

Our Apps make it possible to connect to live data
anywhere anytime

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<http://www.cognitiveconvergence.com>

+1 4242530744

shahzad@cognitiveconvergence.com

shahzad@cognitiveconvergence.com



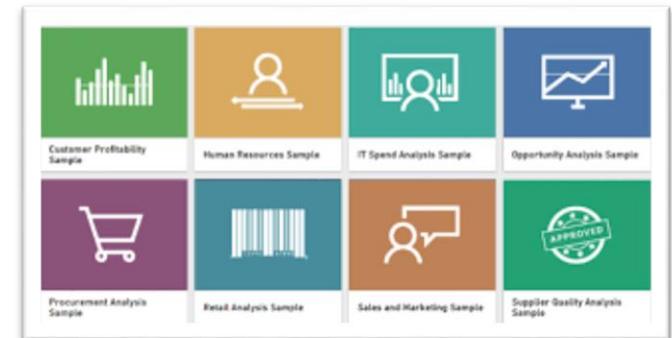
GET THE TEMPLATE APP FROM MICROSOFT APPSOURCE

Power BI tenant admins govern and control who in their organization can create template apps, and who can install them. Those users who are authorized can install template app, then modify it and distribute it to the Power BI consumers in their organization.

- To download and import Apps from AppSource in Power BI following steps are required.
- Open Microsoft AppSource website.
- Select the Apps tab from the bar on the top.
- Select Power BI Apps options.
- The page will show more than 200 results of Power BI Apps accessed (i.e., the app author has given permission). Browse the list of available custom apps.
- Select the app needed for report. Select Get it now and agree to the terms of use.
- Confirm that want to install this app.

Usage and customization of Template APP

- The Power BI service will display a success message once the app is installed. Select "Go to app" to open the app. Depending on how the designer created the app, either the app dashboard or app report will display.
- Apps can directly open from app content list by selecting Apps and choosing the downloaded one.
- Choose whether to explore or customize and share new app. Because we've selected a Microsoft sample app, let's start by exploring.
- New app opens with a dashboard. The app *designer* could've set the app to open to a report instead.
- Whenever a new version of app arrives, it gives notification bar to update app every time it opens.
- Select "Get it to update".
- When prompted to install the updated app, select "Install".
- This app can be used by uploading own data source.



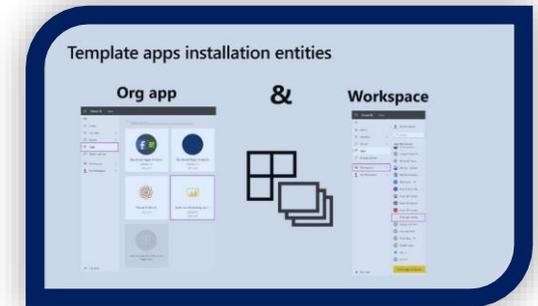
SOLUTION DESIGN

An app is a Power BI content type that combines related dashboards and reports. An app can have one or more dashboards and one or more reports, all bundled together. Customized visuals along with the visuals from AppSource can be added to Template apps, they work well with other Power BI visuals. By creating Power BI reports and dashboards, one can become a template app builder and builds and packages analytical content into an app. These apps can deploy to other Power BI tenants through any available platform, such as AppSource, or by using it in own web service. As a builder have the possibility to create a protected analytics package for distribution.

DEVELOPMENT STEPS

Creating an app (converting packages analytical content into an *app*) and deploying it on any other Power BI tenant platform such as AppSource requires Power BI Pro tenant. Power BI tenant admins govern and control who in their organization can create template apps, and who can install them. Those users who are authorized can install template app, then modify it and distribute it to the Power BI consumers in their organization. By following these steps template app can be created and distributed.

- Create a Report on Power BI Desktop.
- Open Power BI Services and create a new workspace.
- Expand advanced section, check on Develop a template app. Click on Save.



Create the content in template app

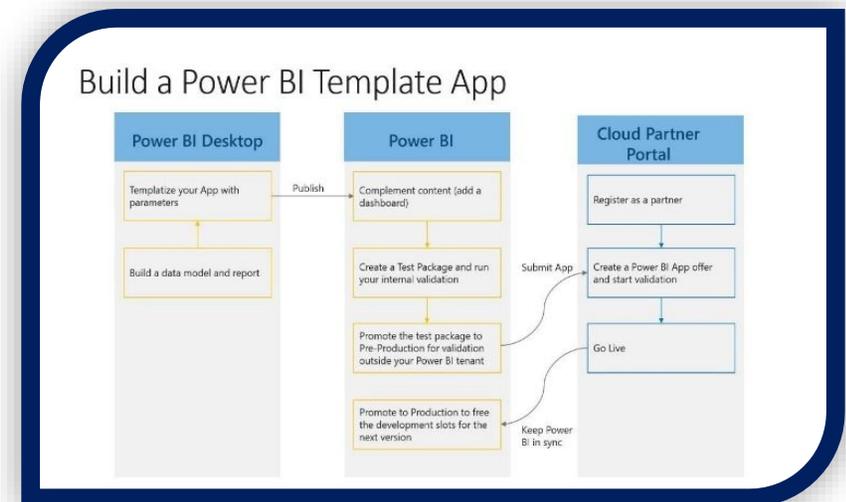
- In the Files section of Create new content, get the Power BI Report to make a Template App.
- Create dashboard of the report in Power BI Services and Make sure that the dashboard is set to "Included in App".

Create the test template app

Till now, content is created and published in Workspace and is ready to package in a Template App. There are five categories of building options need to be filled.

Branding

- App name
- Description
- Support site (link is presented under app info after redistributing template app as org app)



- App logo (45K file size limit, 1:1 aspect ratio, .png .jpg .jpeg formats)
- App theme color

Navigation

Activate the New navigation builder where can define the nav pane of the app.

App landing page

Define a report or dashboard to be the landing page of app. Use a landing page that gives the right impression.

Control

Set limits and restrictions that application users will have with the content of application.

Parameters

Use this category to manage parameter behavior when connecting to data sources.

- **Value:** default parameter value.
- **Required:** use this to require the installer to input a user-specific parameter.
- **Lock:** Locking prevents the installer from updating a parameter.

Access

In the test phase, it is decided the organizations and individuals who can have access to App.

Create app

A message that the test app is ready, with a link to copy and share with app testers.

Manage the template app release

Here full app release path is inspected before releasing it to the AppSource. Transition from stage to stage can also trigger. The common stages are:

- Generate test app: for testing only in organization.
- Promote the test package to pre-production stage: test outside of organization.
- Promote pre-production package to Production: production version.
- Delete any package or start over from previous stage.

The URL doesn't change as move between release stages. Promotion doesn't affect the URL itself. To test the app installation experience, copy the link in the notification window and paste it in a new browser window.



Explore App

- Select Explore App to verify the test app with the sample data.
- To make any changes, go back to the app in the original workspace. Update the test app until satisfied.
- When ready to promote app to pre-production for further testing outside tenant, go back to the Release Management pane and select Promote app.

Publish App on AppSource

Template app is created and tested successfully and ready to publish on AppSource

- As a Cloud Partner Provider, can go here to publish new Template App as a Power BI Apps offer.
- Copy the production link in the Technical Info section.



DIFFERENCE BETWEEN POWER BI TEMPLATE APP AND POWER BI APP

Template App	Power BI App
<i>Template Apps</i> are integrated packages of pre-built Power BI dashboards and reports, configured to connect to specific data sources. With them, Microsoft partners can quickly access analytics for the apps and services they provide. Partners can also manage the Template Apps development lifecycle, from dev to marketplace to updates	An app is a Power BI content type that combines related dashboards and reports, all in one place. An app can have one or more dashboards and one or more reports, all bundled together. Apps are created by Power BI designers who distribute and share the apps with consumers
The Template Apps are developed by partners (outside of \ organization) and can be installed in tenant and be customized.	Apps were designed as the main organizational consumption experience. They are published by Power BI developers in organization from their Power BI workspaces
Template Apps provide the option to explore the app with sample data or we can use our own data, it also provide the facility to customize the app and save it as an organizational app	Power BI Apps does not provide any such facility, these apps are designed for organizational use with organizational data.

LIMITATIONS

Creating own custom Template App to meet the requirements of our organization as well as data and upload it on AppSource is a good approach. But it has some limitations too.

- Template App can only package one dataset, one report and one dashboard within the same template.
- Dataflow cannot be included in the template app, but this capability will be released in the future.
- Paginated reports or Excel workbooks are not included in the template app.
- The data source must be connected using the import mode. The following connectivity modes are not supported:
 - DirectQuery
 - Live connection to Analysis Services
 - On-premise datasets via on-premises data gateway
 - Streaming datasets
 - Composite models
- Cross-workspace datasets are not allowed
- Real-time tiles in the dashboard are not allowed
- The use of query parameters of Any or Binary type will lead to schedule refresh failures
- Organizational Custom Visuals are not supported, only AppSource custom visuals can be used in the report template



Power BI Template Apps

Search by app name...

New Template App | Old Content Pack

Total Apps: 155 | Avg. Rating: 3.46 | # of Ratings: 2,475 | Play by Rank

Facebook Pages - Basic Analysis

Rating: ★★★★★

Raters: 24

The simplest way to analyze any Facebook page with Power BI

Old content packs will be deprecated soon and be removed from AppSource (announced [here](#)).
* The rank is calculated by a factored rating multiplied by # of ratings. Source: Microsoft AppSource | Get this .pbix [here](#)

DATAHANT

CONCLUSION

In this paper different visuals of Power BI, available on AppSource is discussed. A brief introduction along with their usage and solution architecture and development steps is discussed.

Cognitive Convergence will provide consulting services that help in designing, deploying, managing, enhancing, or troubleshooting on-premises, cloud-based or hybrid Power BI environment. Cognitive Convergence will provide help to start fresh with Power BI to modernize current business analytics solution or revamp existing Power BI deployment by incorporating new data sources or adding new services.



Contact Us Cognitive Convergence

<http://www.cognitiveconvergence.com>

+1 4242530744

shahzad@cognitiveconvergence.com