



# **Prepare for take-off: Navigating Power BI Developer Mode Is the Journey Worth the Flight?**

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**Fabric Power BI Portugal**

Power BI Portugal, now even better





Power BI  
Developer Mode



Benefits



Considerations  
and Limitations



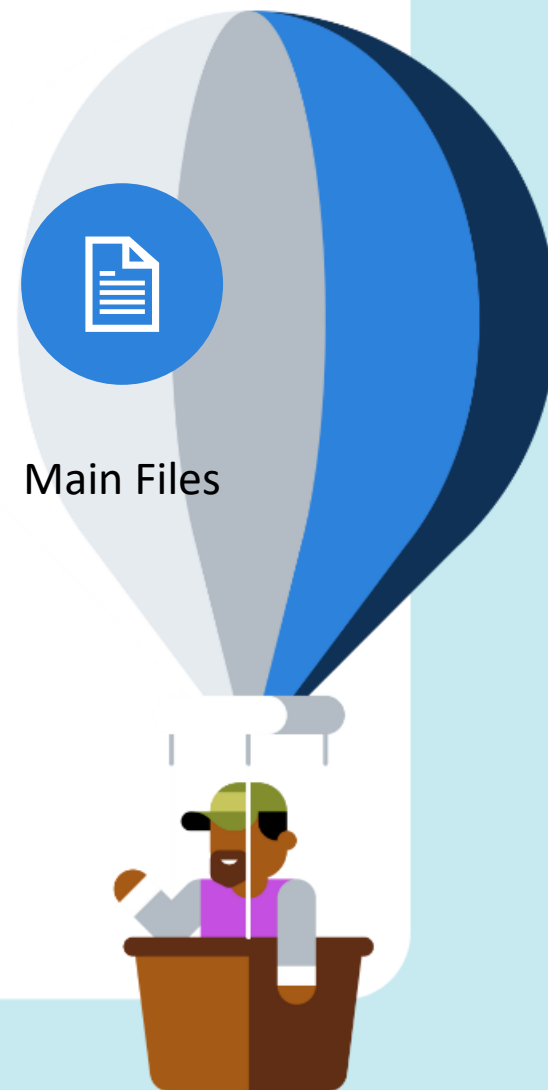
Folder Structure



Main Files



Demo





# Power BI Developer Mode



Power BI developer mode provides a suite of features that enable developer focused capabilities like external tool support, script and API support, source control with Git integration, and Continuous Integration/Continuous Delivery (CI\CD) with Azure DevOps.

New format for saving reports: Power BI Project (PBIP).

As a project, report and dataset artifact definitions are saved as individual plain text files in a simple, intuitive folder structure





# Benefits

- **Text editor support**
  - Files saved as JSON formatted files containing dataset and report metadata
  - Can be edit with simple text editor like notepad
- **Programmatic Generation and editing artifact definitions**
  - Allows creation of scripts and easy Tabular Model Scripting Language (TMSL) or create custom applications.
  - Tabular Model Definition Language (TMDL) – In preview
- **Source Control**
  - Artifact can be stored in source control systems for example Git.
  - Allows collaboration for resolving conflicts (merge)
- **Continuous integration and Continuous Delivery (CI/CD)**
  - System validations with quality gates (DevOps CI/CD)





# Considerations and limitations

- Power BI Desktop isn't aware of changes made with external tools.
- Sensitivity labels not supported.
- Download PBIX isn't supported for workspaces with Git integration.
- Diagram view is ignored when editing models in the Service.
- Maximum length of the project files path is 260 characters.
- PBIP can't be directly saved to OneDrive for Business and SharePoint.
- Editing PBIP files outside of Power BI Desktop, should be saved using UTF-8 without BOM encoding.
- Report Linguistic Schema is not supported with Power BI projects.
- Power BI Desktop uses CRLF as end-of-line. (GIT configuration needed).





# Folder Structure

- \<project name>.Dataset folder
  - A collection of files and folders that represent a Power BI dataset. It contains some of the most important files you're likely to work on, like model.bim
- \<project name>.Report folder
  - A collection of files and folders that represent a Power BI report. The most important file is the "report.json" although during Preview external modifications to this file are not supported.
- <project name>.PBIP file
  - The PBIP file contains a pointer to a report folder, opening a PBIP opens the targeted report and model for authoring.
- .gitignore
  - Specifies intentionally untracked files Git should ignore, only metadata should be stored at Git Repo. Data is saved as a local cached copy, called cache.abf, that tend to be a large binary file and therefore ignored by Git.
- The <project name> precedent allows saving multiple projects in the same folder





# Main Files

- **model.bim**
  - Folder: \<project name>.Dataset folder

Contains a Tabular Model Scripting Language (TMSL) Database object definition of the project model.

Edit through Text Editor or Tabular editor
- **report.json**
  - \<project name>.Report folder

Defines a report including visuals, page layout, and intended interactions.

During preview, this file doesn't support external editing.







# Demo

- Model:
  - Measures
  - Queries
  - Diagram Layout
- Report:
  - Pages
  - Filters
  - Fields and titles
  - Bookmarks

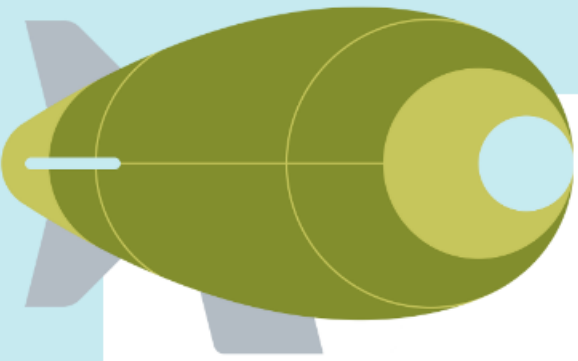




# Why use developer mode

- Flexibility
- Option if external tools are not available
- Improved readability (model and report)
- Bulk updates
- Copy + Paste
- Access options otherwise more complex
  - Page changes
  - Specific visual definitions
  - ...





# Thank you



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