

pobvol Open Checklists

Installation and update of the software solution

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pobvol Open Checklists



The software solution pobvol Open Checklists

Quickly and easily define checklists with checkpoints and fields | Collect data in a structured way | Free Software | Open Source | Microsoft 365 (Office 365) | PCs/Macs & Mobile Devices | Study

With the software solution **pobvol Open Checklists**, your teams can easily and quickly define their own checklists with checkpoints and fields and then use them to transmit the results of checks and other activities to their own SharePoint lists in a structured manner.

Why this helps:

- ♣ Data structures must not be programmed with a lot of effort in databases and lists. This is easy and quick with the solution.
- ♣ All users can customize the checklists, checkpoints, and fields to meet the needs of the team. Your users can define Text, Number, Date, and Choice (choices / combo box) fields and assign them to each checkpoint in a checklist. This ensures maximum flexibility.
- Structured data can also be easily processed and evaluated. This is not so quick and easy with unstructured data from emails or text messages.

Platforms:

- ♣ Microsoft 365 Business

 must be set up for your company to install and operate the software solution. For information about Microsoft 365 and Office and system requirements, see the page Microsoft 365 und Office resources

 .
- To install the solution, you need a **Windows PC** on which the PC component of the solution is installed. At least Windows 10 must be installed on the PC.
- ♣ Your team uses PCs/Macs or mobile devices (Apple iPads/iPhones, Android tablets/smartphones). Microsoft's minimum requirements for using Power Apps are provided on the website Power Apps system requirements and limits Power Apps | Microsoft Docs

 Nounced a Microsoft 365

 Business Basic License

 or higher per user. This is not free and must be purchased by you from Microsoft.



A Microsoft Power Apps application is the most important part of the solution. It allows your team to create the necessary fields, checklists, checkpoints, and record the results of checks and other activities.

Microsoft tools and services are used for automation. For example: A Power Automate Flow summarizes the sent data in a report and sends it via Outlook to the sender. This ensures transparency and helps to verify the data sent once again.

The solution stores your data in your Microsoft 365 SharePoint lists. Your team can access the data at any time from all supported devices while keeping licensing costs as low as possible. Since SharePoint is included in the Microsoft 365 Business Basic license, there are no additional license costs. The limitations of this technique may require a move to a Microsoft 365 SQL Server for higher data volumes. This is not part of the solution.

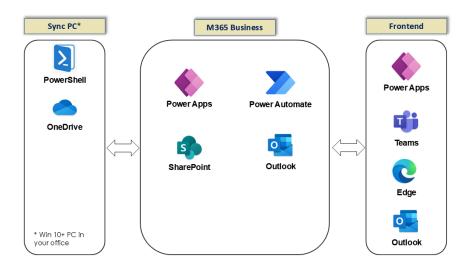
For customers in Germany, Microsoft delivers cloud services from Germany! Your business data is stored in compliance with GDPR in Germany - demonstrably secure data storage in German data centers. More

The software solution pobvol Open Checklists is Free Software of delivered as open source. You can download the solution, install and operate it in your Microsoft 365 environment and adapt to your needs. The use of the solution is free of charge. But you will need a Microsoft 365 Business Basic License or higher per user. This is not free and must be purchased by you from Microsoft.

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Your Microsoft 365 (Office 365) Environment



You use the following Microsoft 365 products and services for operations.

- Microsoft PowerShell is used by the PC component of the solution for automation.
- ♣ Microsoft OneDrive is used by the PC component of the solution for automation. The tool synchronizes files between the PC component and your team's SharePoint library.

- A **Microsoft Power Apps** application is an important part of the solution. This is delivered with an unmanaged Power Apps solution and is therefore open source. Used is Power Fx, a universal, strongly typed, declarative, and functional programming language. Power Fx formulas can be stored in YAML source files.
- ♣ A Microsoft Power Automate Flow is used for automation. The flow sends an email notification about received data. This ensures transparency. It is delivered with an unmanaged Power Apps solution.
- Data and documents are stored in your Microsoft SharePoint environment. You have full control over your data and can manage who is allowed to access it.
- Your team uses Microsoft Teams, Microsoft Edge, and Power Automate Mobile on PCs, Macs, and mobile devices to run the Power Apps application.
- **Microsoft Outlook** can be used for managing emails.



The components

You get the following open-source, customizable components:

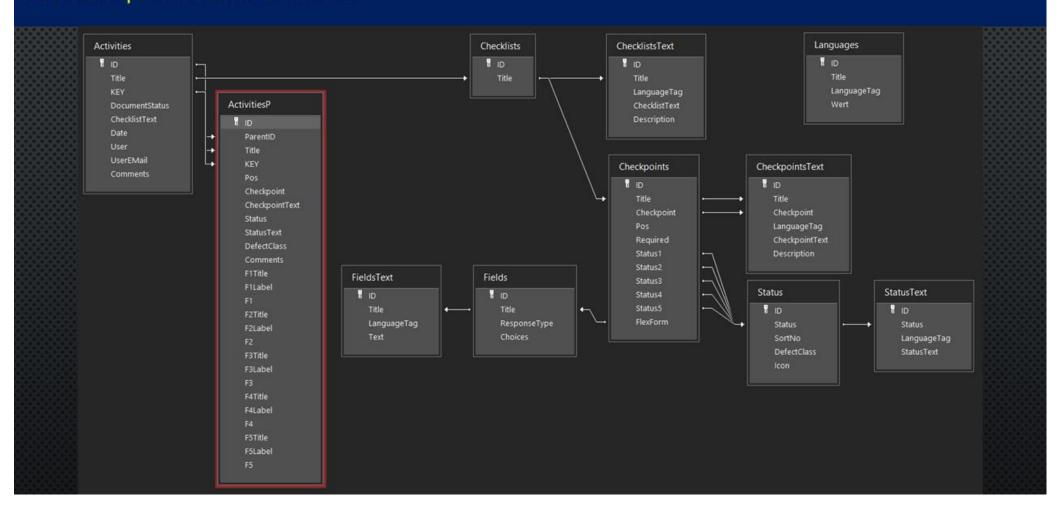
#	Туре	Comments
1	Microsoft Power Apps Canvas App	pssChecks App for managing checklists, checkpoints and fields. Capture results of checks and activities and send them to SharePoint lists.
2	Microsoft Power Automate Cloud Flow	pobvol Open Checklists: Create activity report This flow informs senders by email about the received data. This ensures transparency.
3	Microsoft SharePoint list	pssActivities This list stores details per check.
4	Microsoft SharePoint list	pssActivitiesP This list stores details per check and checkpoint.
5	Microsoft SharePoint list	pssChecklists This list stores details about the checklists.
6	Microsoft SharePoint list	pssChecklistsText This list stores the names and descriptions of the checklists in different languages.
7	Microsoft SharePoint list	pssCheckpoints This list stores details about the checkpoints of the checklists.

#	Туре	Comments
8	Microsoft SharePoint list	pssCheckpointsText This list stores the names and descriptions of the checkpoints in different languages.
9	Microsoft SharePoint list	pssFlexFields This list stores details about the fields.
10	Microsoft SharePoint list	pssFlexFieldsText This list stores the names of the fields in different languages.
11	Microsoft SharePoint list	pssLanguages This list stores the translations into the different languages.
12	Microsoft SharePoint list	pssStatus This list stores the available status values. These can be assigned to the checkpoints.
13	Microsoft SharePoint list	pssStatusText This list stores the status text in different languages.
14	Microsoft PowerShell script	pssChecklistsSetup.ps1 This script takes care of the creation/customization of the SharePoint team page and lists during the installation/updates of the solution.
15	Microsoft PowerShell script	pssChecklistsBackup.ps1 This script can be used to create a backup of the SharePoint lists.



The data model

Relationships of the SharePoint lists





Installation



Installation

For the setup of the software solution, the PC component of the solution is installed on a Windows 10+ PC. Here you can also start data backups later. You can download the solution from pobvol.com or github.com.

Download the software solution from pobvol.com

- 1. On the PC where the solution is to be installed, start either Microsoft Edge or Google Chrome.
- 2. Access the following website: https://pobvol.com/en/psschecklists.html
- 3. Scroll down to Downloads. In the container "Download the solution", click on the button "Download (ZIP)". Wait a moment until the download is complete.
- 4. Use the File Explorer to switch to the computer's download folder. The file 'pssChecklistsTeamx.zip' should be listed.
- 5. Right-click to open the context menu of the file 'pssChecklistsTeamx.zip' and select 'Extract All'.

As destination folder use e.g. 'C:\PSS'.

Set the 'Show files after extraction' flag to have File Explorer automatically switch to the specified destination folder.

If the destination folder does not exist, it will be created automatically. Here you will find the new subfolder **pssChecklistsTeamx**.

This means that the PC component of the solution is installed. The destination folder is mentioned in the following as **working folder**.



Alternatively, download the software solution from github.com.

1. On the PC where the solution is to be installed, start either Microsoft Edge or Google Chrome.

 Access the website <u>https://github.com/pobvolcom/pssChecklists.</u>

On the right, in the Releases section, click on the latest entry. The details of the selected release will be displayed.

In the Assets section, click on the file pssChecklistsTeamx.zip. Wait a moment until the download is complete.

- 3. Use the File Explorer to switch to the computer's download folder. The file 'pssChecklistsTeamx.zip' should be listed.
- 4. Right-click to open the context menu of the file 'pssChecklistsTeamx.zip' and select 'Extract All'.

As destination folder select e.g. 'C:\PSS'.

Set the 'Show files after extraction' flag to have File Explorer automatically switch to the specified destination folder.

If the destination folder does not exist, it will be created automatically. Here you will find the new subfolder **pssChecklistsTeamx**.

This means that the PC component of the solution is installed. The destination folder is mentioned in the following as **working folder**.



Identify your Microsoft 365 Tenant

To set up the solution, you'll need your Microsoft 365 tenant value.

- 1. Use a browser (Chrome or Edge) to sign in to the <u>Microsoft 365</u> admin center as an administrator.
- 2. Select 'SharePoint' from the Admin Center menu. The 'SharePoint Admin Center' opens.
- 3. Remember your tenant value from the URL.

```
https://Tenant-admin.sharepoint.com/
```

Add tenant und team to pssChecklistsSettings.xml

File pssChecklistsSettings.xml

- 1. Switch to the working folder in the file explorer and then edit the file "pssChecklistsSettings.xml" in the subfolder "Templates" using a text editor.
- 2. Enter your tenant value.
- 3. **Enter the name of your team.** A SharePoint group/page is created for this team a little later, if the group/page does not yet exist.
- 4. You will determine the parameter PnPRocksId later.
- 5. Save the file in the working folder.
- 6. Please check briefly if the file "pssChecklistsSettings.xml" really exists in the working folder.



Microsoft PowerShell 7 and PnP.PowerShell

For the setup of the software solution and later data backups, use always the current versions of Microsoft PowerShell 7 and PnP.PowerShell.

PowerShell is included with Microsoft Windows. There are no further license costs.

PnP.PowerShell is a PowerShell module that provides over 600 cmdlets that can communicate with Microsoft 365 environments such as SharePoint Online, Microsoft Teams, Microsoft Project, Security & Compliance, Azure Active Directory, and more. PnP.PowerShell is created and maintained as open source by a community. The use is free of charge. There are no further license costs!

Links:

https://learn.microsoft.com/en-us/powershell/scripting/install/installing-powershell?view=powershell-7.5&viewFallbackFrom=powershell-7.3

https://learn.microsoft.com/en-us/powershell/

https://docs.microsoft.com/enus/powershell/sharepoint/sharepoint-pnp/sharepoint-pnp-cmdlets

https://pnp.github.io/powershell/articles/installation.html

Install Microsoft PowerShell 7

- 1. **Search for PowerShell using the Find icon in the taskbar.** If this is listed, PowerShell is already installed and you can skip the next steps.
- 2. Use the search icon in the taskbar to search for Store and open the Microsoft Store.
- 3. Search for PowerShell in the Microsoft Store and download it.

 This will install the current version.

Update Microsoft PowerShell 7

- 1. Search for PowerShell using the search icon in the taskbar and start PowerShell 7 as administrator.
- 2. List some version information:

\$PSVersionTable

3. Ask for the current available version:

winget search Microsoft.PowerShell

4. Install the current available version:

winget install --id Microsoft.Powershell --source winget



Install PnP.PowerShell

1. After you have started PowerShell 7, you must remove the security restrictions of PowerShell for the current session:

Set-ExecutionPolicy -ExecutionPolicy RemoteSigned - Scope CurrentUser

Confirm that the security restrictions are to be removed for the current session.

2. Use Get-Module to display the installed packages.

Get-Module

3. Either install the latest stable version,

Install-Module PnP.PowerShell -Scope CurrentUser

Import-Module 'PnP.PowerShell'

Confirm that the module should be installed when requested.

or update to the latest stable version.

Update-Module PnP.PowerShell -Scope CurrentUser

Confirm that the module should be installed when requested.



Register PnP.PowerShell with Microsoft 365

1. Now register PnP.PowerShell. Register an Entra ID Application to use with PnP PowerShell | PnP PowerShell

```
Register-PnPManagementShellAccess

Register-PnPEntraIDAppForInteractiveLogin -
ApplicationName 'PnP Rocks' -Tenant
[yourtenant].onmicrosoft.com -Interactive
```

2. This creates the application 'PnP Rocks' with its own ID. Please remember the ID. You will need it to log in to your tenant.

Enter PnP Rocks Id in pssChecklistsSettings.xml

File pssChecklistsSettings.xml

Your own PnP Rocks Id is required to logon to your Microsoft 365 SharePoint. Therefore, you must save your Id in the file pssChecklistsSettings.xml in the working folder.

- 1. Go to the working folder in File Explorer and edit the file pssChecklistsSettings.xml in Notepad.
- 2. Enter your PnP Rocks Id.
- 3. Save your changes and close the file.



Create your SharePoint group/page and lists

You now need to create the SharePoint team page and lists. To do this, use the PowerShell script 'pssChecklistsSetup.ps1'.

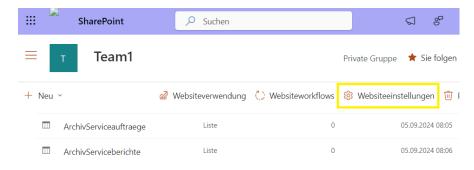
- 1. Go to the working folder in File Explorer.
- 2. Place the cursor on the file 'pssChecklistsSetup.ps1', use the right mouse button and select 'Open with pwsh'. If pwsh is not available, select the file 'C:\Program Files\PowerShell7pwsh.exe' by clicking on 'Open with another app'. Mark that this app should always be used. After that, PowerShell 7 is available in the 'Open With' dialog as entry pwsh.

Note: It takes about 5 minutes to create the new SharePoint page with all lists.



Check the country/regional settings of the team page

- 1. Start Microsoft Edge or Google Chrome and sign in at office.com with an administrator account.
- 2. Start SharePoint and open the team page.
- 3. **Open the website content.** You can find it in the menu but also via the settings (gear wheel top right).
- 4. Open the Site Settings.



- 5. Open the Country/Regional Settings in the Site Administration pane.
- 6. Check the time zone and adjust it if necessary.
- 7. Check the locale and adjust it if necessary.
- 8. Check the language settings for the page and adjust them as needed and possible.

- 9. Check the remaining settings and adjust them if necessary. It is important that you set the correct settings, otherwise there will be subsequent problems later.
- 10. Save your settings.



Check the solution's lists and permissions

- 1. **Open the website content.** You can find it in the menu but also via the settings (gear wheel top right). The following lists should be available:
 - pssActivities
 - pssActivitiesP
 - pssChecklists
 - pssChecklistsText
 - pssCheckpoints
 - pssCheckpointsText
 - pssFlexFields
 - pssFlexFieldsText
 - pssLanguages
 - pssStatus
 - pssStatusText

In the list settings, you can check the settings and adjust them if necessary.

- 2. **Now switch to the site permissions.** You can find them via the settings (gear wheel top right).
- 3. At the bottom, click Advanced Permissions Settings. The Site Settings → Permissions page appears. Here you can manage the access to the website: Owner (default: full access), member (default: edit), visitor (default: read).

You should see the following notice: 'Some content on this site has different permissions than those shown here. Show these items.'. When you click on 'Show these items,' you should see in a window that the solution's lists have their own permissions set up.

4. **Check the settings and adjust them if necessary**. It is important that you set the correct settings, otherwise there will be consequences later.

Important

Protect the lists from accidental schema changes (e.g. adding new fields is allowed, but deleting fields could break the solution).



Is the group added to Teams?

The script 'pssChecklistsSetup.ps1' creates the SharePoint group/page and lists. If everything worked correctly, then Teams was also set up for the SharePoint group.

- 1. Start Microsoft Edge or Google Chrome and sign in at office.com with an administrator account.
- 2. Start Admin to open the Microsoft 365 admin center.
- 3. Select active teams and groups.
- 4. Check the Teams-status for the used group. Is teams already been set for the group? If not, click on the group, go to the General tab and press button 'Add Teams'. This will add the group to Teams.

Set up the Power Apps environment in Teams

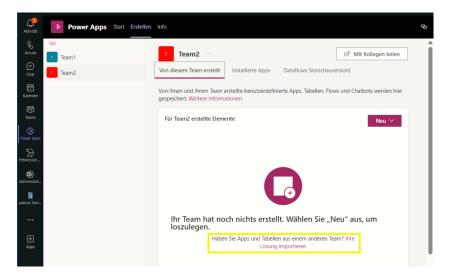
- 1. Start Teams and open Power Apps.
- 2. Switch to the 'Build' tab at the top.
- 3. If you haven't already created a Power Apps environment for your team, select Create in the bottom left corner.
- 4. In the dialog, select the team and select 'Create'.

Microsoft will set up the Power Apps environment for the team. This takes 1 or 2 minutes. You will be informed as soon as this step is completed.



Import the solution

- 1. If the power environment has been set up for Teams, please quit and restart Teams.
- 2. In Teams, go to Power Apps, switch to the 'Build' tab, and select the relevant team. If the team is not displayed, end teams, wait 5 minutes and then try again. It takes some time to fully set up a new power environment for a team.
- 3. In the 'Built by this team' tab, select 'Import solution'.



4. In the 'Import – Select File' dialog, search for the solution file to be imported.

Click on the 'Browse' button. Go to the working folder, subfolder 'Microsoft Power Apps'. Select the current version of the file 'pobvolChecklists*.zip'.

Continue the import with the 'Next' button.

5. In the dialog 'Import - All elements are imported', the flows and apps of the solution are listed.

Continue the import with the 'Next' button.

- 6. The 'Import Connections' dialog lists connection references that are used by the flows and apps. The Power Apps and Power Automate Flows use these references. Special adjustments in the flows and apps are therefore not necessary.
 - > **pssChecklistsSharePoint:** Create a new connection or associate an existing one.
 - pssChecklistsOneDrive: Create a new connection or associate an existing one.
 - > **pssChecklistsOutlook:** Create a new connection or associate an existing one.

Continue the import with the 'Next' button.



7. The 'Import - Environment Variables' dialog lists environment variables that are used by the flows and apps. The Power Apps and Power Automate Flows use these variables. Special adjustments in the flows and apps are therefore not necessary.

You must set a current value for all variables.

- pssChecklistsActivities: Map the following SharePoint list: pssActivities
- pssChecklistsActivitiesP: Map the following SharePoint list: pssActivitiesP
- pssChecklistsChecklists: Map the following SharePoint list: pssChecklists
- pssChecklistsChecklistsText: Map the following SharePoint list: pssChecklistsText
- pssChecklistsCheckpoints: Map the following SharePoint list: pssCheckpoints
- pssChecklistsCheckpointsText: Map the following SharePoint list: pssCheckpointsText
- pssChecklistsFlexFields: Map the following SharePoint list: pssFlexFields
- pssChecklistsFlexFieldsText: Map the following SharePoint list: pssFlexFieldsText
- pssChecklistsLanguages: Map the following SharePoint list: pssLanguages

- pssChecklistsStatus: Map the following SharePoint list: pssStatus
- pssChecklistsStatusText: Map the following SharePoint list: pssStatusText
- ➤ **pssChecklistsTeam**: Your SharePoint team page needs to be mapped. If your new team is not listed, end teams, wait a bit and then try again. It takes a few minutes for a new SharePoint group/team to be fully set up and available everywhere.

Continue the import with the 'Next' button.

The import will start. The following message is displayed:

Customizations from the pobvolChecklists_x_yy.zip file are currently being imported.

When the import is complete, you should see the following message:

Customizations from the pobvolChecklists_x_yy.zip file have been successfully imported.



- 8. After the import is complete, briefly switch to the 'Home' tab and then switch back to the 'Build' tab.
- 9. In the Build tab, switch to the 'Installed apps' tab and select 'Show all'.

In the Apps section, the Power App 'pssChecks' should be listed.

In the Cloud Flows section, the flow 'pobvol Open Checklists:

Create activity report' should be listed. The flow should be enabled (status: On). If not, troubleshooting must be carried out.

In the Other → Connection References section, the connections should be listed.

In the Other → Environment Variables section, the environment variables should be listed.

- 10. Select the app 'pssChecks' and select the <Add to Teams> button in the menu at the top.
- 11. In the dialog, select the <Add to Teams> button.
- 12. In the dialog 'This website is trying to open Microsoft Teams', set the flag and allow Teams to set this link.
- 13. In the next dialog select the button <Add to a team>.
- 14. In the next dialog select the team and then select the <Set up tab> button.

15. In the 'Post to channel' dialog, turn the posting on or off and select Save.

From now on, the app can be launched in Teams by clicking on the new tab. If something didn't work, restart Teams and try it again.

The solution file 'pobvolChecklists*.zip' was created with Power Apps as an unmanaged solution. This means that the Power App and the Flow are open source and you can extend and customize them.



Updates



Updates

Download the software solution

Updates for the solution **pobvol Open Checklists** must be downloaded on the PC where the PC component of the solution has been installed.

1. Download the solution from pobvol.com or github.com. You can find details about this in the Installation chapter.

Update SharePoint lists

You need to update the SharePoint lists now. To do this, use the PowerShell script 'pssChecklistsSetup.ps1'.

- 1. Go to the working folder in File Explorer.
- 2. Run the script 'pssChecklistsSetup.ps1'.

Note: It takes a few minutes to create new lists and update existing lists.

In the subfolder 'Microsoft SharePoint' there are xml files with the current list definitions. These are used by the script to update the SharePoint lists.



Update the solution in Teams

Now that the SharePoint lists have been updated, you can update the solution in Teams.

- 1. Open Power Apps in Teams, switch to the 'Build' tab and select the relevant team.
- 2. In the 'Built by this team' tab, select 'See all'.
- 3. **Select Import** → **Import solution from the menu at the top**. Click on the 'Browse' button. Go to the working folder, subfolder 'Microsoft Power Apps'. Select the current version of the file 'pobvolChecklists*.zip'.

Continue in the import dialog with the 'Next' button.

4. In the dialog 'Import - Select Elements for Import', the flows and apps of the solution are listed. Import everything.

Continue in the import dialog with the 'Next' button.

5. The 'Import - Connections' dialog lists connection references that are used by the flows and apps. Normally, no adjustments are necessary here.

Continue in the import dialog with the 'Next' button.

6. The 'Import - Environment Variables' dialog lists environment variables that are used by the flows and apps. Normally, no

adjustments are necessary. Set a current value only for new variables.

Continue in the import dialog with the 'Import' button.

The import will start. The following message is displayed:

Customizations from the pobvolChecklists_x_yy.zip file are currently being imported.

When the import is complete, you should see the following message:

Customizations from the pobvolChecklists_x_yy.zip file have been successfully imported.



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