PowerBuilder Compiler (PBC)

User Guide

Appeon® PowerBuilder® 2018

FOR WINDOWS

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1 What is PowerBuilder Compiler (PBC180.exe)

PowerBuilder Compiler (PBC180.exe hereinafter) is a standalone app that is used to compile or deploy PowerBuilder projects using DOS commands on Windows. It can be installed on any machine (either with or without a PowerBuilder installed). It is provided separately and is currently free for use.

Although there is no major difference between compilation using PBC180.exe and compilation (Run > Full Build/Incremental Build) in PowerBuilder IDE, there are two slight differences between deployment using PBC180.exe and deployment in PowerBuilder IDE (Run > Deploy). Please see the following table for details.

Difference	**PowerBuilder**	**PBC180.exe**
.pbd/.dll files	You can select some of the PBLs to be generated to PBD or DLL files.	All of the PBLs will be deployed to PBD/DLL files by default when using the /d parameter to deploy the PowerBuilder project to .exe.
Resource files	You can specify a separate resource file to associate with a specific .pbl file.	Only a general resource file for all PBLs is included.

2 Installing PBC180.exe

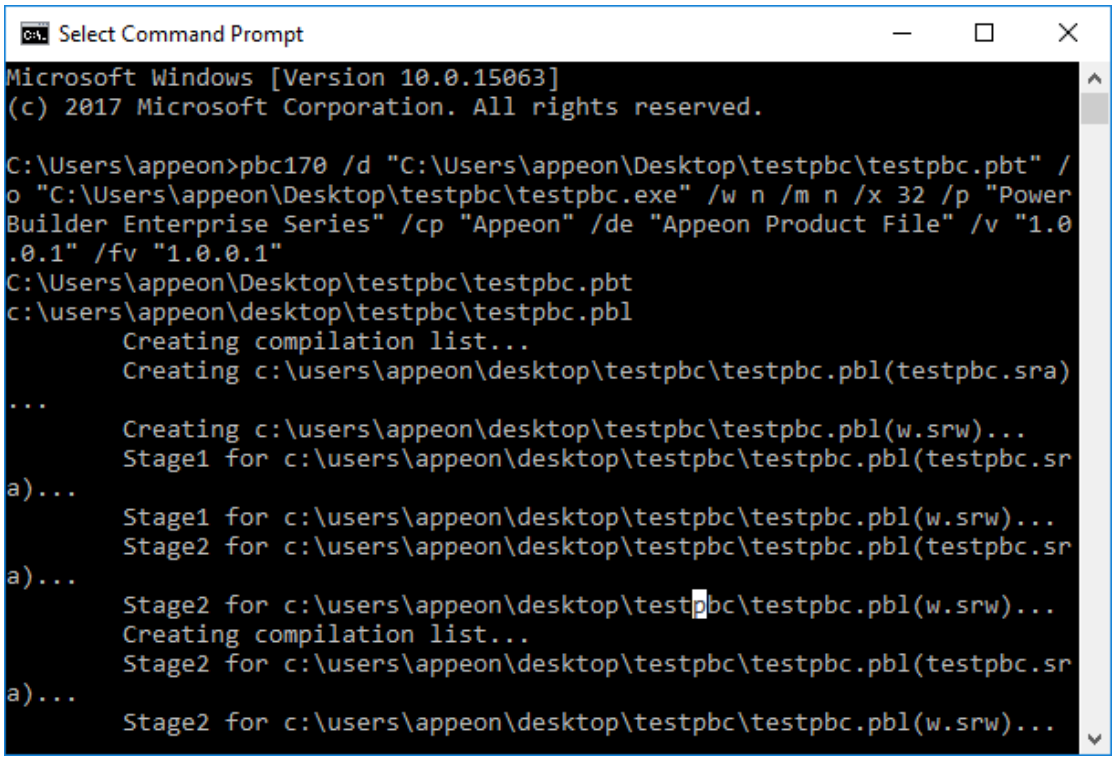
The PBC180.exe installer is provided alone and you need to install it separately.

1. Double click the PBC180.exe installer AutoCompile.exe.
2. Click Next on the welcome screen.
3. Click Browse to select the installation directory or use the default directory, and then click Next.
4. Click Install and wait until the installation is complete.
5. Click Finish to exit the wizard. You may need to restart your computer.

3 Compiling/Deploying PowerBuilder Projects Using PBC180.exe

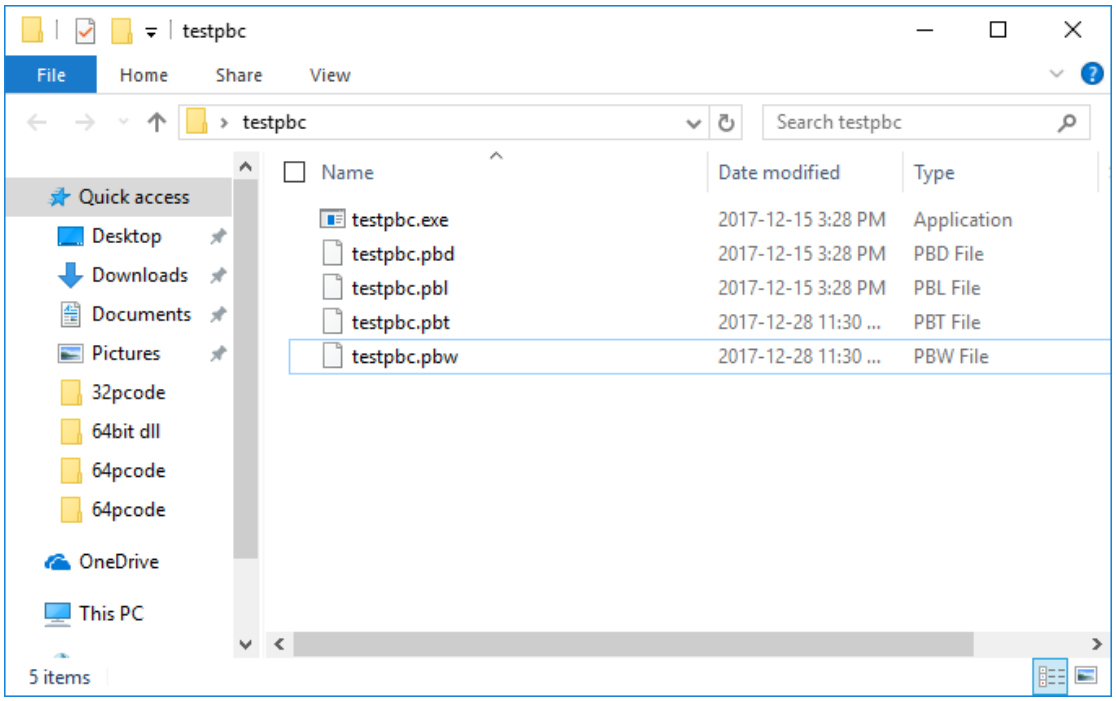
You can either compile or deploy PowerBuilder projects using PBC180.exe.

1. Prepare the PowerBuilder projects in PowerBuilder IDE. **Make sure the PBT file is not read-only.**
2. Open the CMD window.
3. Type PBC180 and the supported parameters such as /d, etc. For the PBC180.exe supported parameters, see PBC180.exe supported parameters.



Note: You can create and generate the command using the PBC runtime parameters for deployment in PowerBuilder IDE, and then copy and paste the command to the CMD window. In the PowerBuilder IDE, click New > Project > Application to create the command with PBC runtime parameters. You may refer to *Creating a project* and *Defining an executable application project* in (PowerBuilder) *Users Guide* for more details on creating and defining a project.

4. You can now check the generated files in the specified folder.


testpbc
File
Home
Share
View
testpbc
Search testpbc
Quick access
Desktop
Downloads
Documents
Pictures
32pcode
64bit dll
64pcode
64pcode
OneDrive
This PC
Name
Date modified
Type
testpbc.exe
2017-12-15 3:28 PM
Application
testpbc.pbd
2017-12-15 3:28 PM
PBD File
testpbc.pbl
2017-12-15 3:28 PM
PBL File
testpbc.pbt
2017-12-28 11:30 ...
PBT File
testpbc.pbw
2017-12-28 11:30 ...
PBW File
5 items

4 PBC180.exe supported parameters

PBC180.exe supports the following three categories of parameters:

- Parameters for compiling PowerBuilder projects.
- Parameters for deploying PowerBuilder projects.
- Parameter for displaying PBC180.exe help.

4.1 /c (and other compiling parameters)

/c is used to compile the PowerBuilder projects and then saves the changes into the related PBLs.

/c supports:

1. two file types: .pbw or .pbt (.pbl is not supported currently).
2. two compilation modes: /f for full compilation; and /i for incremental compilation. If not specified, full compilation will be used by default.

Examples:

This example compiles test11.pbw in full compilation mode:

pbc180 /c test11.pbw

This example compiles test11.pbw in incremental compilation mode:

pbc180 /c test11.pbw /i

4.2 /d (and other deployment parameters)

/d is used to deploy the PowerBuilder projects to .exe and .dll/.pbd files. It supports two file types: .pbw or .pbt (.pbl is not supported currently). For example, pbc180 /d test11.pbw.

It also supports the compilation modes (/f for full compilation and /i for incremental compilation) and the following optional parameters for deployments. For example, pbc180 /d "test11.pbt" /o "test11.exe" /r "test11.pbr" /w n /f /m y /tr n /in n /op 0 /x 32 /bg y /p "PowerBuilder Enterprise Series" /cp "Appeon" /de "Appeon Product File" /cr "Contains licensed copyright material by Appeon" /v "1.0.0.1" /fv "1.0.0.1" /ge 1 /le 0 /ps n

Please see the following table for details about these parameters.

Parameters	Description
/o	Name of the application executable file to be created. All the other related files will be deployed to the same folder as the

	exe file. For example: /o d:\fo\test11.exe. If not specified, the same name as the PBT file will be used. PowerBuilder IDE -> Project Painter: Executable file name option
/r	Name of a PBR (PowerBuilder resource file) that will be used to build the executable file. For example, /r test11.pbr. PowerBuilder IDE -> Project Painter: Resource file name option
/x	Whether the platform to run the exe file is 32-bit or 64-bit. Values are 32 (the default) and 64. For example, /x 32. 32-bit exe file can only run with the 32-bit runtime files, and 64-bit exe file can only run with the 64-bit runtime files. PowerBuilder IDE -> Project Painter: Platform option
/cp	Name of the company. Default value is “Appeon”. If there’s space in the company name, the name should be quoted, for example, /cp "Appeon SZ". PowerBuilder IDE -> Project Painter: Company name option
/p	Name of the product. Default value is “PowerBuilder Enterprise Series”. If there’s space in the product name, the name should be quoted, for example, /p "PowerBuilder Enterprise Series". PowerBuilder IDE -> Project Painter: Product name option
/de	Description of the product. Default value is “Appeon Product File”. If there’s space in the description, the description should be quoted, for example, /de "Appeon Product File". PowerBuilder IDE -> Project Painter: Description option
/cr	Copyright statement of the product. Default value is “Contains licensed copyright material by Appeon Inc. and others. Use and distribution of Sybase copyright material and licensed material is governed by Appeon End-user License Agreement.”. If there is space in the copyright description, the description should be quoted, for example, /cr "All rights reserved.". PowerBuilder IDE -> Project Painter: Copyright option
/v	Version of the software. Default value is “1.0.0.1”. PowerBuilder IDE -> Project Painter: Product version option (Properties displayed for executable)

/fv	Version of the file. Default value is “1.0.0.1”. PowerBuilder IDE -> Project Painter: File version option (Properties displayed for executable)
/vn	Version of the software which consist of four integer values representing the major version number, minor version number, fix version number, and build number, with each value separated by a decimal point, for example "11.0.0.3012". PowerBuilder IDE -> Project Painter: Product version option (Executable version used by installer)
/fvn	Version of the file which consist of four integer values representing the major version number, minor version number, fix version number, and build number, with each value separated by a decimal point, for example "11.0.0.3012". PowerBuilder IDE -> Project Painter: File version option (Executable version used by installer)
/w	Whether to use the Windows classic style. Values are: ● y – use the Windows classic style. ● n – (the default) use the PowerBuilder style. PowerBuilder IDE -> Project Painter: Windows classic style option
/m	Whether to generate machine code executables and dynamic libraries. Values are: ● y – generate machine code. ● n – (the default) generate pseudo code. PowerBuilder IDE -> Project Painter: Pcode option and Machine code option
/tr	Whether to generate a trace file for troubleshooting or profiling your application when you run the executable file. Values are y and n (the default). This parameter takes effect only when machine code executable is generated. PowerBuilder IDE -> Project Painter: Trace information option
/in	Whether to display context information (such as object, event, and script line number) for runtime errors. Values are y and n (the default). This parameter takes effect only when machine code executable is generated.

	PowerBuilder IDE -> Project Painter: Error context information option
/op	Optimization level. Values are: ● 0 - (the default) Optimize for speed ● 1 - Optimize for space ● 2 - None This parameter takes effect only when machine code executable is generated. PowerBuilder IDE -> Project Painter: Optimization option
/bg	Whether to enable any code that you placed in DEBUG symbol conditional compilation code blocks. Values are y (the default) and n. PowerBuilder IDE -> Project Painter: Enable DEBUG symbol option
/ge	Whether to generate manifest. Values are: ● 0- (the default) No manifest ● 1- Embedded manifest ● 2- External manifest PowerBuilder IDE -> Project Painter: Generation options option
/le	Execution level of manifest. This parameter takes effect only when /ge is set to 1 or 2. Values are: ● 0- (the default) As Invoker ● 1- Highest Available ● 2- Require Administrator PowerBuilder IDE -> Project Painter: Execution level option
/ps	Whether to allow access to the protected system UI. Values are y and n (the default). This parameter takes effect only when /ge is set to 1 or 2. PowerBuilder IDE -> Project Painter: Allow access to protected system UI option

4.3 /h

/h is used for displaying the help of PBC180.exe parameters.

Example: pbc180 /h