PassGen User Guide

V2.x

Table of Contents

PassGen User Guide

PassGen by Joe Pitt is a Secure Password Generator which generates passwords in various formats, Crypto Random, Random Words and CVC Format.

The main sections of this User Guide are:

- System Requirements,
- Installation,
- Usage, and,
- Licensing.

System Requirements

In order to use PassGen you will need to be running one of the supported Operating Systems and have all of the Prerequisites installed.

Operating System

The supported Operating Systems are:

- Microsoft® Windows® 10
- Microsoft® Windows® 8.1
- Microsoft® Windows® 7
- Microsoft® Windows Vista®

Prerequisites

The Prerequisite for PassGen is:

- Microsoft® .NET Framework 4.5.1

If Word Lists are not setup then an Internet Connection is required to use the Random Words Generator.

Installation

There are two ways to install PassGen

1. Online Installation (Recommended)
2. Offline Installation

Word Lists

Once you have installed PassGen, using either method, it is **highly recommended** that you set up word lists for the words generator to ensure this is as secure as possible.

Online Installation

The recommended way to install PassGen is to use the Online Installation, outlined below.

1. Go to https://www.joepitt.co.uk/Project/PassGen/.
2. Select Either:
   i. Launch - if you know you have all the prerequisites installed, or,
   ii. Setup - if you are not sure you have all he prerequisites, or, because Launch showed an error.
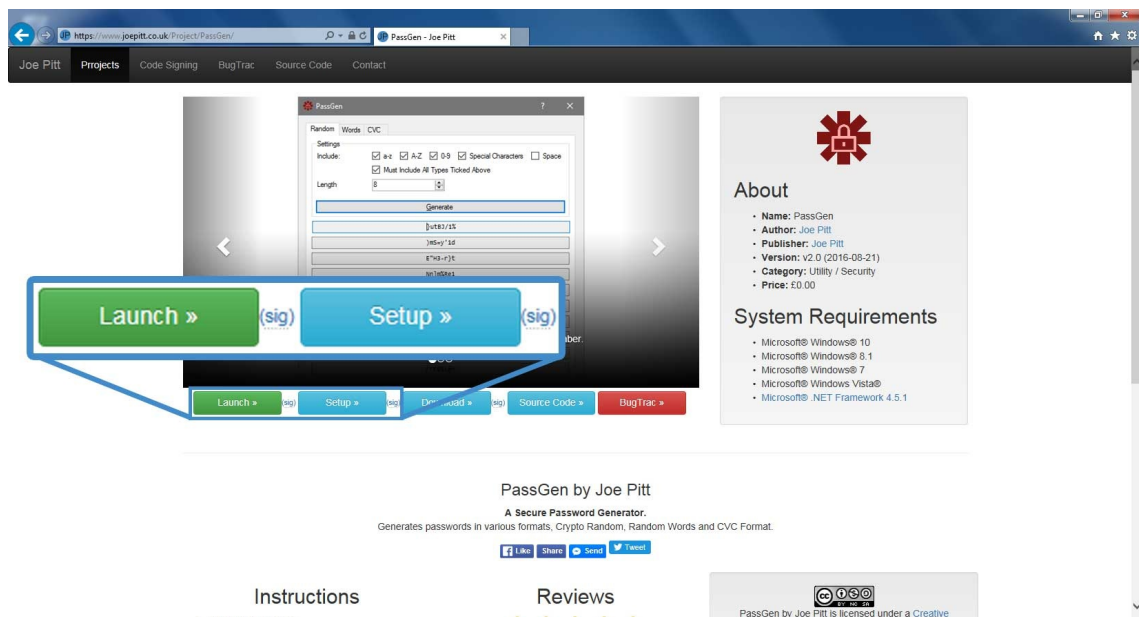
3. Both files have GPG Signatures (the (sig) links), which can be used to verify the download if you wish, see Code Signing to download the signing key(s) and for instructions on verifying the files.

4. If you have chosen **Setup**, Click **Run.**

You may see a **User Access Control** windows asking for permission to make changes to your computer, Click **Yes**, this is to install the prerequisites.

6. PassGen will be installed and will Launch automatically

7. It is **highly recommended** you now close PassGen and Setup Word Lists for the Random Words Generator.
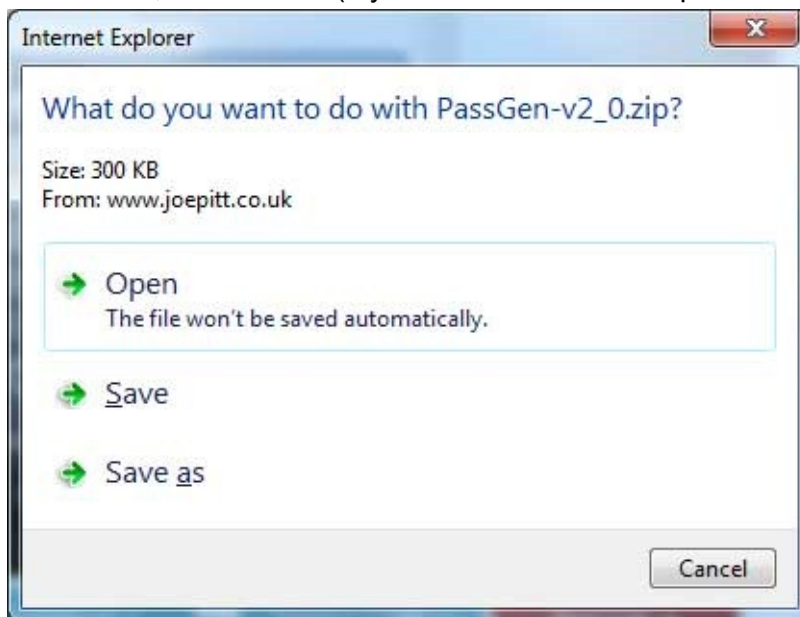
Offline Installation

If you need to install PassGen on a system without an internet connection, you will need to use the Offline Installation process outlined below.

1. On an Internet Connected devices, go to https://www.joepitt.co.uk/Project/PassGen/.
2. Select **Download**.

3. Click **Save**, or **Save As** (if you wish to save to a specific location).

4. The download has a GPG Signature (the (sig) link), which can be used to verify the download if you wish, see Code Signing to download the signing key(s) and for instructions on verifying the file.

5. Transfer the downloaded zip file, e.g. PassGen-v2_0.zip, to the target system.

6. Right Click the zip file and choose **Extract All...**
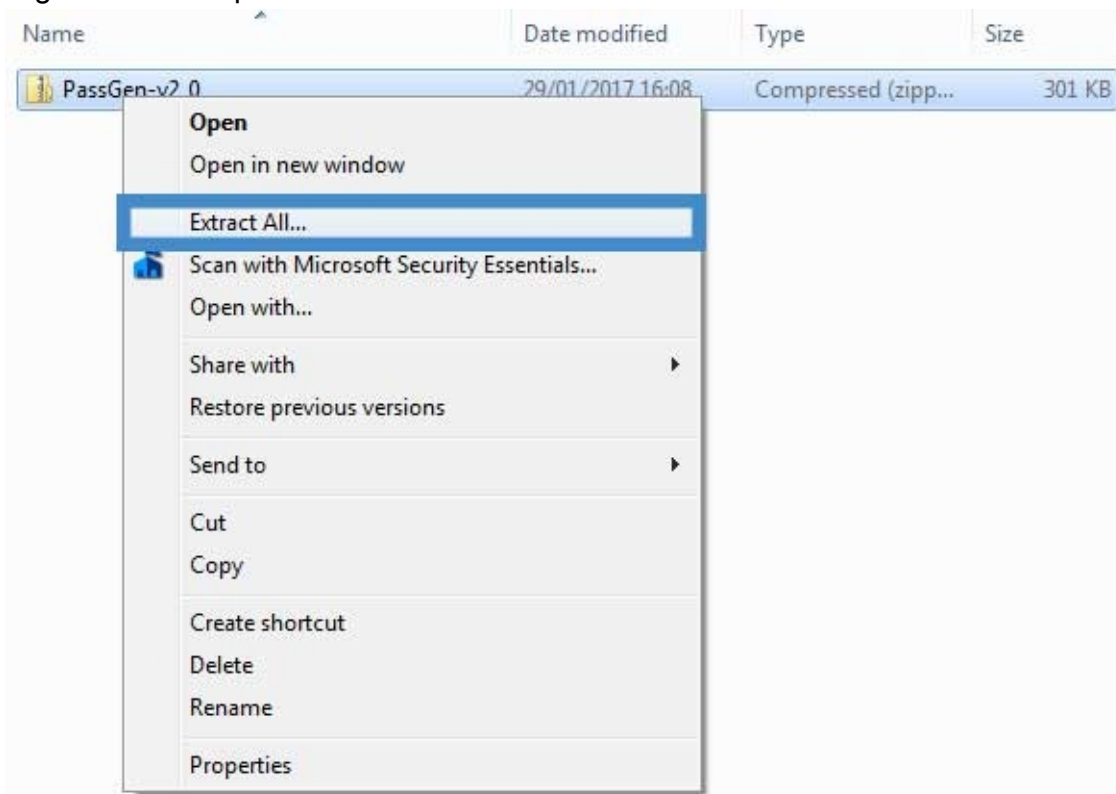
7. Ensure **Show extracted files when complete** is ticked, then, click **Extract**.
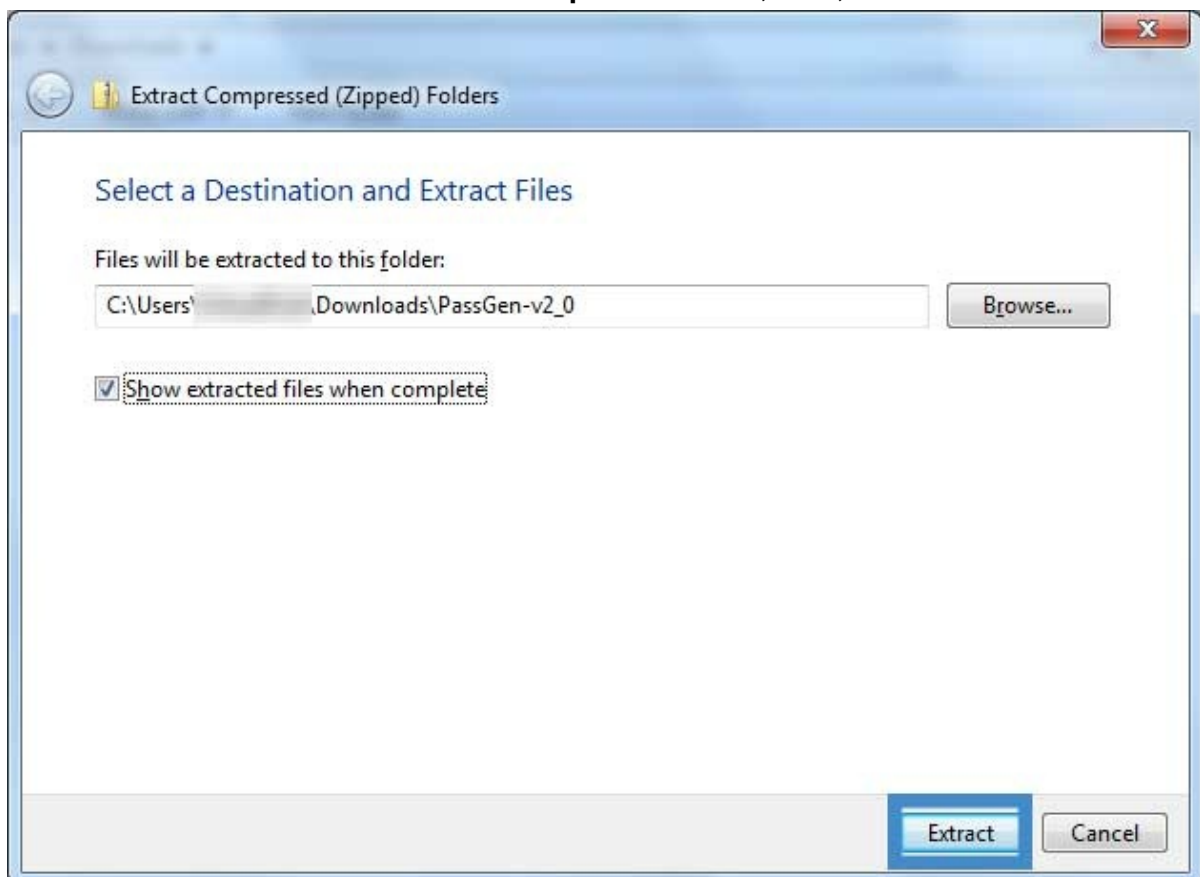
8. Double Click on **Setup.exe**.

9. You may see a Open File - Security Warning, check the **Publisher** contains "**Joe Pitt**" and is a blue hyperlink (you can click this to view the signing certificate), this means Windows has successfully verified the Digital Signature of the file, then click **Run**.
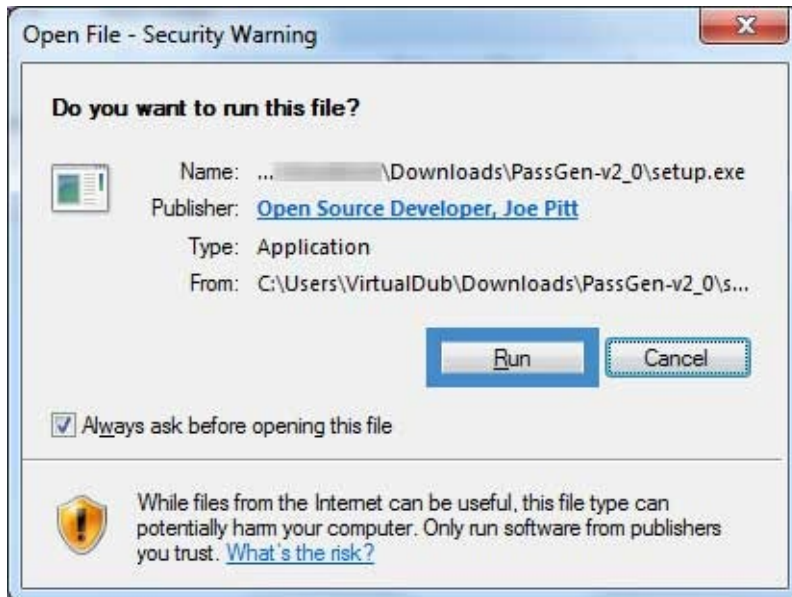
10. You may see a **User Access Control** windows asking for permission to make changes to your computer, Click **Yes**, this is to install the prerequisites.

12. PassGen will be installed and will Launch automatically

13. It is **highly recommended** you now close PassGen and Setup Word Lists for the Random Words Generator.

Word List Setup

Word Lists should be used as the source of words for the Random Words Generator, the longer the word list the better. PassGen used 4 word lists:

- Adjectives.txt
- Adverbs.txt
- Nouns.txt
- Verbs.txt

There are stored in: `%AppData%\JoePitt\PassGen\`

If word lists are not used then an Internet Connection is required to access an online service to get random words, **much less secure!**

Why aren't Word Lists installed with PassGen?

Word Lists are not automatically installed with PassGen as, the more random the Word Lists, the more secure the generated passwords should be, if an attacker knows the Word Lists you have used this can make it easier for them to guess your password.

Generating Word Lists

How you choose to generate your Word Lists is outside the scope of this User Manual, however, please note the format of the word lists is one word per line e.g.

> ...
>
> Softly
>
> Carefully
>
> Calmly
>
> Frequently
>
> Searchingly
>
> ...

Note: it is **recommended** you start words with a Capital Letter, this will make reading the generated passwords easier.

A sample set of word lists can be downloaded form
https://www.joepitt.co.uk/Project/PassGen/download/WordLists.zip

Installing Word Lists

Once you have generated your Word Lists in the format and with the filenames above, open Windows Explorer, and in the address bar type `%AppData%\JoePitt\PassGen\` then press Enter on your keyboard.
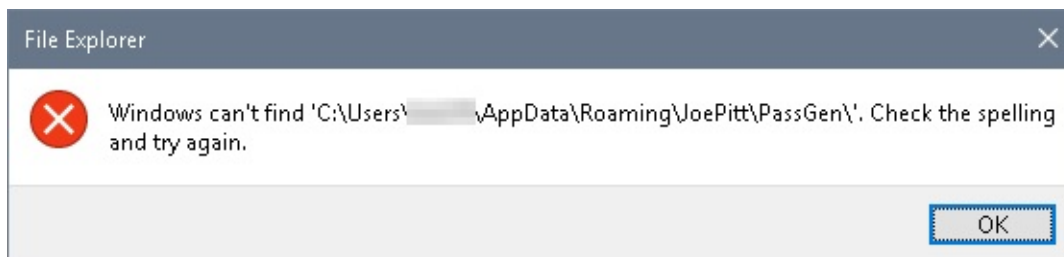

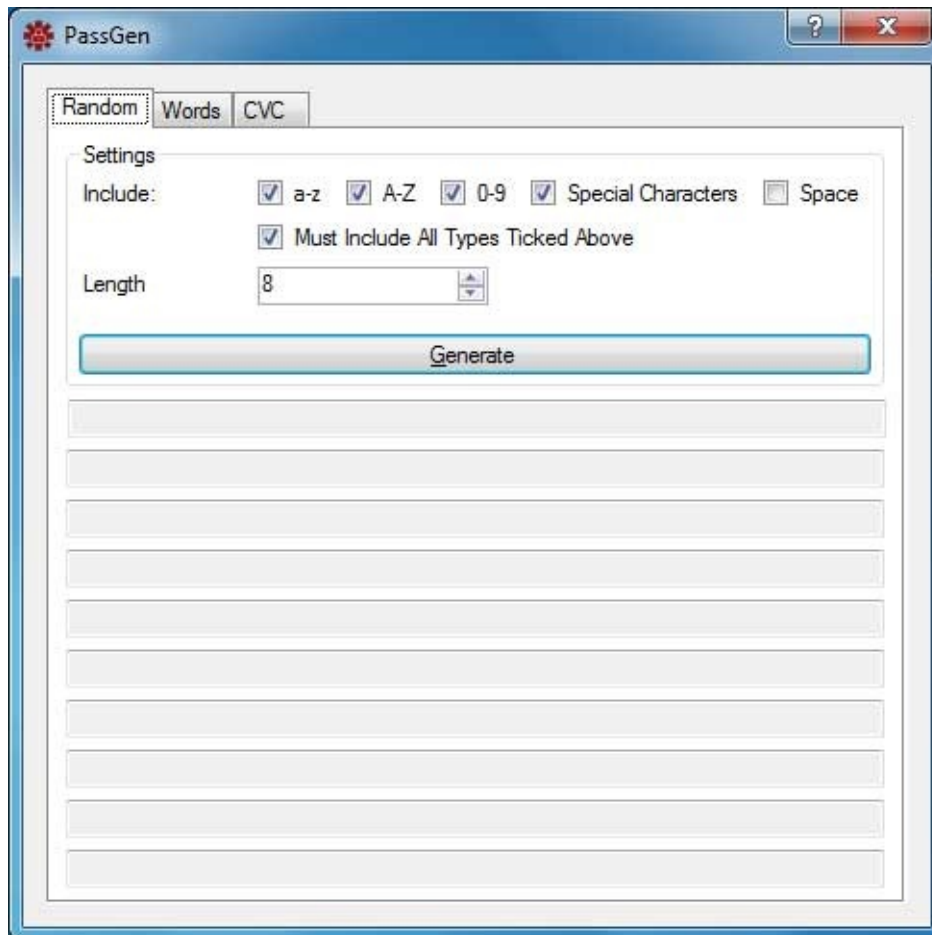Copy or Move your Word Lists into this folder.

Known Issue

If you have not yet run PassGen then you will get an error that the folder does not exist.

To fix this simply launch and exit PassGen.

Usage

When you launch PassGen it will open to the Crypto Random Generator, to use a different Generator simply click on the tab for the Generator you wish to use:

- Crypto Random
- Random Words
- CVC

Generating Passwords

Once you have gone to the Generator you wish to use and made any settings changes you are ready to generate passwords there are 3 ways this can be done:

1. Click **Generate**, or,
2. Press, or hold, **Enter**, or,
3. Press, or hold, **Alt+G**.

Then simply choose a password and use it, it is recommended that you use a different password for every service, differences should be trivial or easily guessed either, e.g. using BasePasswordFacebook, for Facebook and BasePasswordTwitter for Twitter.

Crypto Random Generator
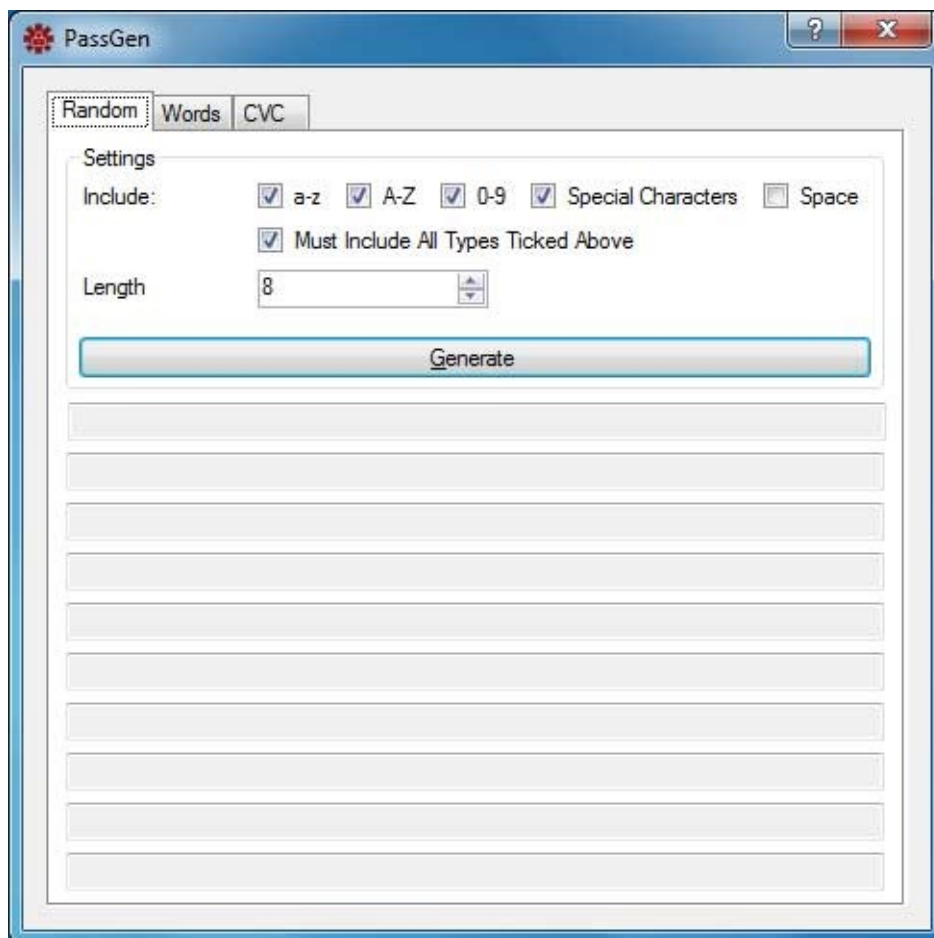
The Crypto Random Generator generates uses cryptography to generate strings of ASCII Characters, based on the settings you chose.

Available Settings

Include - the Character Sets to include in the Generators character set

- Lowercase Letters (a-z)
- Uppercase Letters (A-Z)
- Numbers (0-9)
- Special Characters
- Space

Must Include All Types Ticked Above - whether all of the ticket character types must be present or not
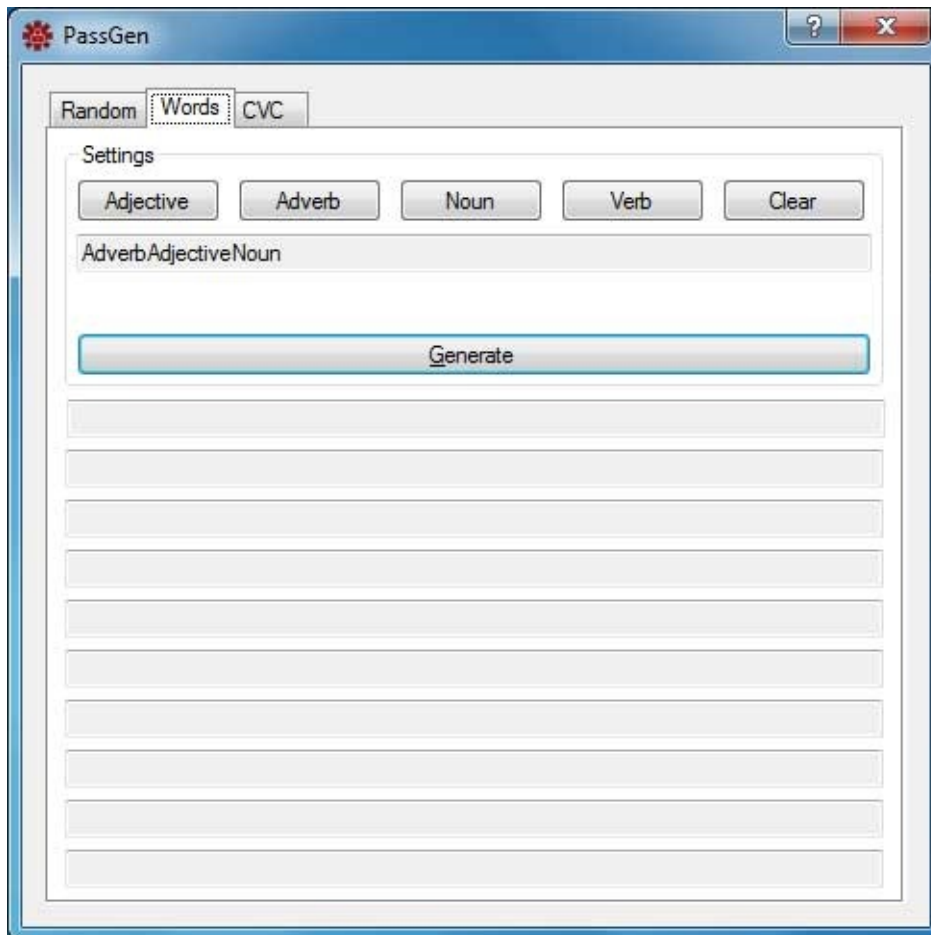
Length - The number of characters to generate per password

Example Passwords

DO NOT USE THESE PASSWORDS!!!

- YQ%!<9bR
- 5y%v`E#`
- 8vv-=Bn'
- S++4pNik
- 0<S@8!o"

Random Words Generator

Important Security Consideration

It is **Highly Recommended** that the Random Words Generator is used with Work Lists. If word lists are not found, then then an online service is used to generate passwords, such passwords should not be considered as secure as those generated using a Word List, as the words will have transited the internet, in plain text, to get to you - online generation is also significantly slower.

Available Settings

To use the Random Words Generator, use the **Adjective**, **Adverb**, **Noun** and **Verb** buttons to create a word type pattern (use the **Clear** button to clear the word pattern), the default is **AdverbAdjectiveNoun** as this generates easy to remember passwords, but this can be cleared and rebuilt as desired.

Depending on the requirements of the services you plan to use the password in you may need to add or substitute some numeric and special characters into the passwords before using them.

Example Passwords

DO NOT USE THESE PASSWORDS!!!

- PartiallySuperficialCamp
- BleaklyPastoralAnger
- BlissfullySleepyStomach
- RegularlyPlausibleFlower
- WhollyStrangeHydrant

Consonant Vowel Consonant (CVC) Generator
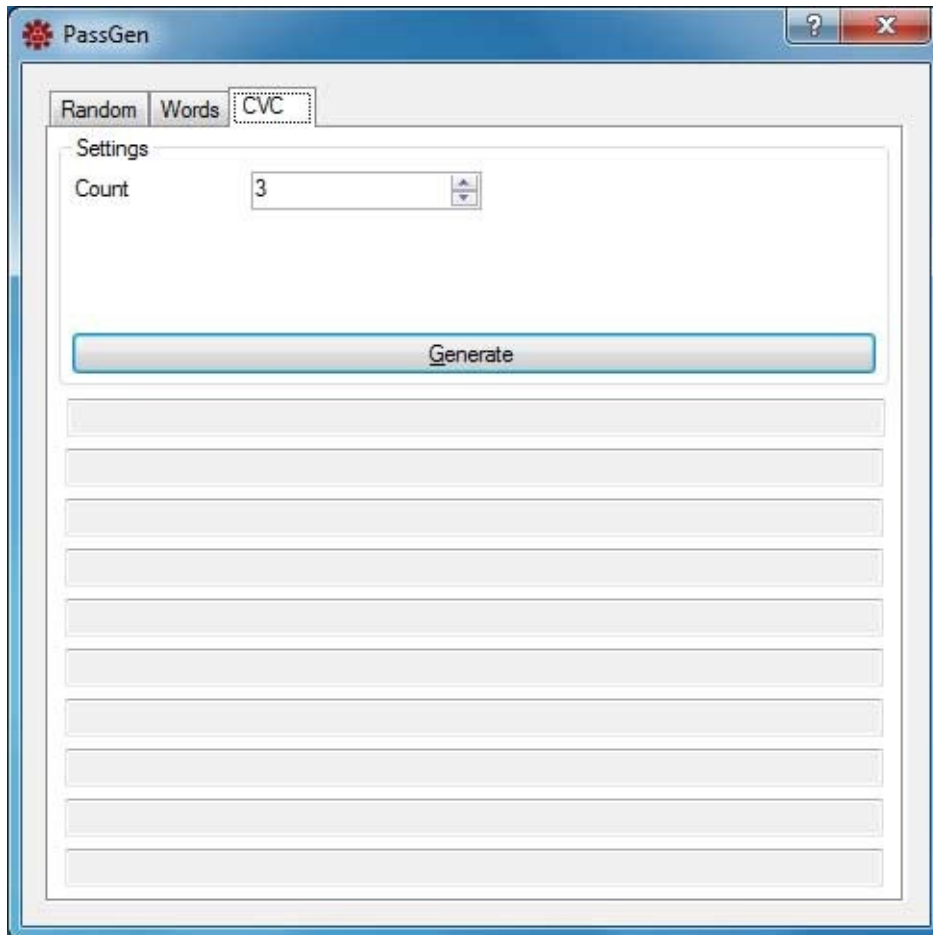
The Consonant Vowel Consonant (CVC) Generator uses cryptography to generate groups of 3 letters in the format Consonant Vowel Consonant. this results in easy to say and memorise passwords.

Available Settings

The Only setting for the CVC Generator is **Count**, as the name suggests this is the number of blocks of CVC to generate.

Example Passwords

DO NOT USE THESE PASSWORDS!!!

- SOH-MIK-JIZ
- ZUQ-BAT-FUK
- QAT-ZUK-FEM
- PAR-FEW-FET
- GOZ-MAB-XOL

Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0)

PassGen by Joe Pitt, including this User Guide, is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International Public License.

> This is a human-readable summary of (and not a substitute for) the license.
>
> ## You are free to:
>
> - Share — copy and redistribute the material in any medium or format
> - Adapt — remix, transform, and build upon the material
> - The licensor cannot revoke these freedoms as long as you follow the license terms.
>
> ## Under the following terms:
>
> - **Attribution** — You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.
> - **NonCommercial** — You may not use the material for commercial purposes.
> - **ShareAlike** — If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original.
> - **No additional restrictions** — You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.
>
> ## Notices:
>
> You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable exception or limitation.
>
> No warranties are given. The license may not give you all of the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material.

The full License text is available at https://creativecommons.org/licenses/by-nc-sa/4.0/legalcode.