Getting started with Solid Framework on Linux®

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Introduction

This document describes the requirements for using Solid Framework on Linux.

It is assumed that you are already familiar with development on a Linux platform.

Contents

Supported versions of Linux

Solid Framework has been tested on the following versions of Linux

- CentOS 7
- Ubuntu 18.04

Licensing

Only Public and Hybrid licenses are available for Linux. Internal licenses are not available.

The license is machine specific. To get a license you will need to use the Linux MachineID tool.

Currently this is only available by emailing support@soliddocuments.com

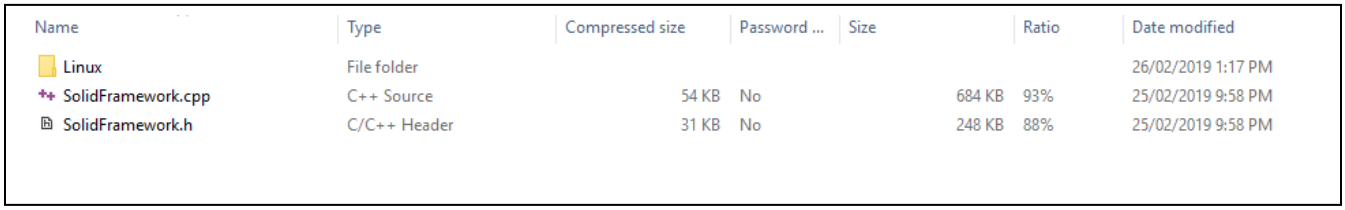
Getting the Solid Framework files

The files are provided as a zipped archive. These can be downloaded from the Solid Documents server.

Please email support@soliddocuments.com for the hyperlink.

Structure of the SolidFrameworkLinuxZip file

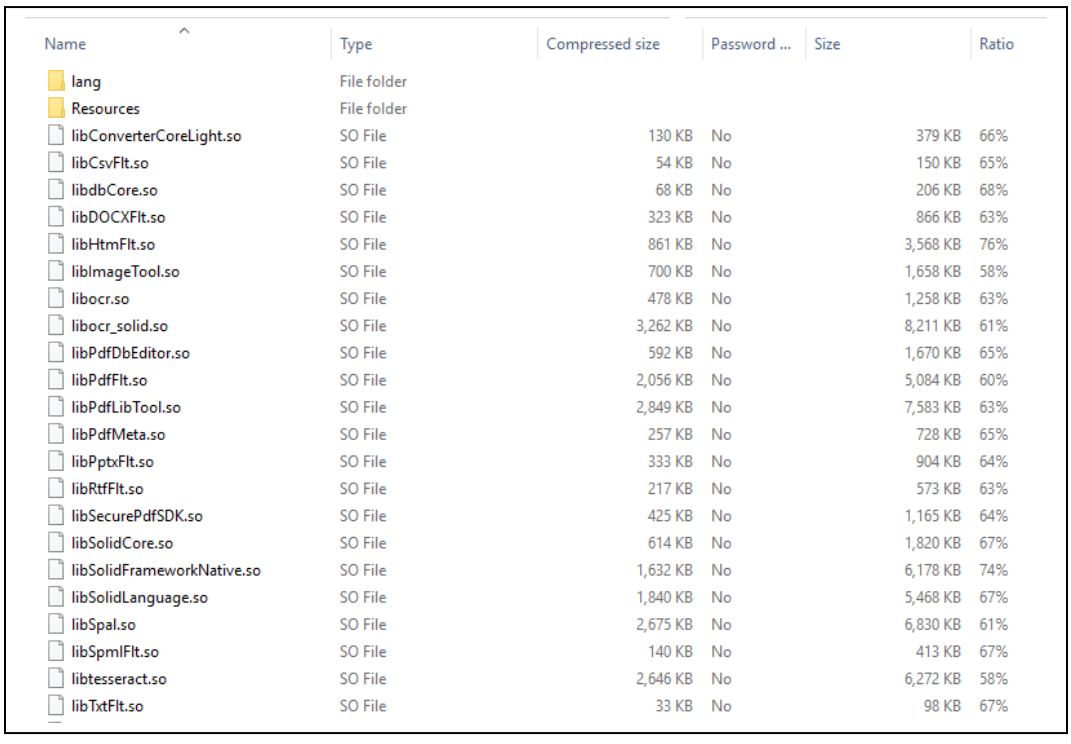
Unpack this file. Your code will need to be able directly access the SolidFramework.cpp and



Name	Type	Compressed size	Password ...	Size	Ratio	Date modified
Linux	File folder					26/02/2019 1:17 PM
SolidFramework.cpp	C++ Source	54 KB	No	684 KB	93%	25/02/2019 9:58 PM
SolidFramework.h	C/C++ Header	31 KB	No	248 KB	88%	25/02/2019 9:58 PM

SolidFramework.h files. These two files provide the bridge to the contents of the Linux Folder

The Linux subfolder



Name	Type	Compressed size	Password ...	Size	Ratio
lang	File folder				
Resources	File folder				
libConverterCoreLight.so	SO File	130 KB	No	379 KB	66%
libCsvFlt.so	SO File	54 KB	No	150 KB	65%
libdbCore.so	SO File	68 KB	No	206 KB	68%
libDOCXFlt.so	SO File	323 KB	No	866 KB	63%
libHtmFlt.so	SO File	861 KB	No	3,568 KB	76%
libImageTool.so	SO File	700 KB	No	1,658 KB	58%
libocr.so	SO File	478 KB	No	1,258 KB	63%
libocr_solid.so	SO File	3,262 KB	No	8,211 KB	61%
libPdfDbEditor.so	SO File	592 KB	No	1,670 KB	65%
libPdfFlt.so	SO File	2,056 KB	No	5,084 KB	60%
libPdfLibTool.so	SO File	2,849 KB	No	7,583 KB	63%
libPdfMeta.so	SO File	257 KB	No	728 KB	65%
libPptxFlt.so	SO File	333 KB	No	904 KB	64%
libRtfFlt.so	SO File	217 KB	No	573 KB	63%
libSecurePdfSDK.so	SO File	425 KB	No	1,165 KB	64%
libSolidCore.so	SO File	614 KB	No	1,820 KB	67%
libSolidFrameworkNative.so	SO File	1,632 KB	No	6,178 KB	74%
libSolidLanguage.so	SO File	1,840 KB	No	5,468 KB	67%
libSpal.so	SO File	2,675 KB	No	6,830 KB	61%
libSpmlFlt.so	SO File	140 KB	No	413 KB	67%
libtesseract.so	SO File	2,646 KB	No	6,272 KB	58%
libTxtFlt.so	SO File	33 KB	No	98 KB	67%

This folder contains the files that actually do the heavy lifting of the PDF reconstruction. You will not normally need to deal with files in this folder. They are shown just to illustrate the number of files that are used by Solid Framework.

Fonts and Linux

Linux typically has very few fonts installed. This causes problems when reconstructing documents, and when viewing documents on a different machine. The reasons for this, and the suggested solutions are described below

Font substitution during reconstruction

When reconstructing a document from a PDF, Solid Framework needs to know which fonts to use in the reconstructed document. Typically, Solid Framework aims to match the font in the PDF with the *available* one that is most similar.

In the past Solid Framework has only been able to use those fonts that are *locally installed*. The small number of installed fonts on a Linux machine restricted the quality of the reconstruction.

Two options are available to resolve this.

Option 1 - Add more fonts to the Linux machine

If more fonts are available on the Linux machine, then Solid Framework will have a wider range of fonts to use.

The fonts can either be actually installed, or can be simply placed in an arbitrary folder, which is referenced using

```
Platform::Platform::SetFontFolder([Path to folder]);
```

Option 2. Recommended - Use a Database of font metrics

This is the recommended option.

Rather than actually having the fonts available on the machine, a file can be used that contains the metrics for the most commonly used fonts.

Solid Documents has created a file (called “fonts.pdf”) that contains this information. This file can be downloaded from https://downloads.soliddocuments.com/solidframework/fonts/fonts.pdf.

For more information see https://solidframework.net/wp-content/uploads/2019/03/Fonts-and-Solid-Framework.pdf.

Font substitution during viewing the reconstructed document

When a presentation is viewed in Microsoft® PowerPoint, if a specified font is not available, then PowerPoint may substitute a similar one. This can result in the same document appearing differently on different machines. If the conversion is performed on a machine with a limited range of fonts available

(as is of the case for Linux), then the result could be a file that looks extremely different depending on whether the fonts used for conversion are present on the user's machine.

To avoid this problem **PowerPoint** now supports the embedding of fonts *where license restrictions allow* this.

To do so use the following code:

```
converter->SetEmbedFontMode(EmbedFontMode::EmbedEditableFonts);
```

For more information see https://solidframework.net/wp-content/uploads/2019/03/Embedding-Fonts.pdf

Note: currently this option is not available when reconstructing Microsoft® Word documents.

Using OCR with Linux

Note this requires an OCR license.

Standard language conversion works with the files that are available within the downloaded zip file. No additional work should be required.

OCR of Chinese, Japanese, Korean and Greek requires the installation of Tesseract Traineddata files.

This is not currently available for Linux, but will be in the near future. Instructions on how to use Tesseract can be found at https://solidframework.net/wp-content/uploads/2017/11/Performing-OCR-using-Tesseract.pdf