

Custom PDF Generator for LabVIEW Version 3 Quick Start User Guide

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Simplicity 😥







Test Failed

Reg ID	Test Name	Limits	Result	Unit	Status
2.1	PSU Voltage	>10.5 <13.5	12.2	Volts	Passed
2.2	V2	>4.5 <5.5	5.001	Volts	Passed
2.3	V3	>3.2 <3.4	3.4001	Volts	Failed
3.2	R2	>0.95 < 1.05	1.001	kOhm	Passed
3.3	R4	>0.95 < 1.05	0.998	kOhm	Passed
3.4	R5	>0.95 < 1.05	1.12	kOhm	Failed
3.5	R12	>9.9 < 10.1	1.42	kOhm	Failed
3.7	R16	>9.9 < 10.1	10.01	kOhm	Passed
3.8	R17	>9.9 < 10.1	9.991	kOhm	Passed
4.1	P5	True	True		Passed
4.2	P6	False	True		Failed
4.3	P7	True	False		Failed
5.3	Ch1 Pulse Width	>4.8 <5.2	5.13	ms	Passed
5.4	Ch2 Pulse Width	>4.8 <5.2	5.42	ms	Failed
5.6	Ch1a Pulse Width	>9.8 <10.2	10.31	ms	Failed
5.8	Ch2a Pulse Width	>9.8 <10.2	9.92	ms	Passed

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Product Test Report

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Important Notes on Upgrading

Major feature improvements have been implemented in version 3 of the custom PDF generator, so there is a compelling reason to upgrade from earlier versions. More details on the improvements can be found in the feature list at the end of this guide and on the <u>Simplicity Al website</u>.

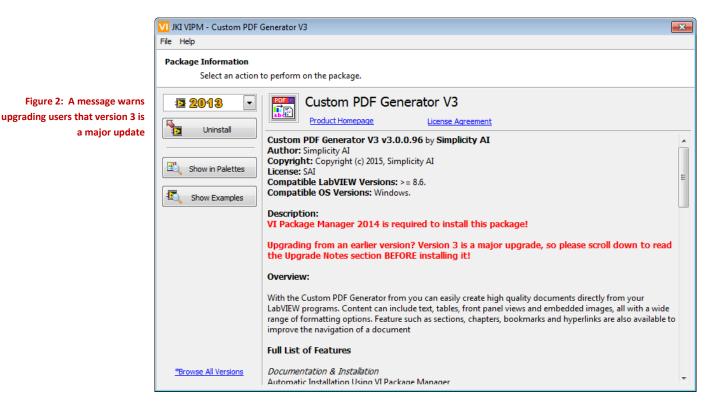
New License Required

Version 3 requires a new license to be issued by Simplicity AI. If you currently have a license for version 2 please <u>contact us</u> for more information on how to upgrade.

Relinking of VIs

Many of the VIs are now members of a LabVIEW class and although they mostly retain the same names, LabVIEW considers them to be completely new VIs. Because of this, you will need to perform some manual relinking of VIs after upgrading to version 3.

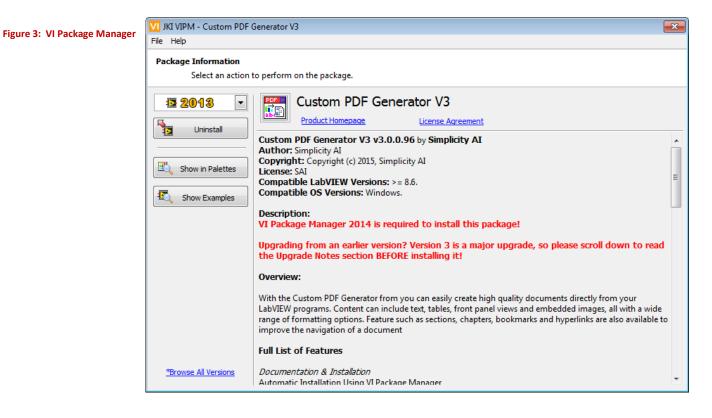
For assistance on relinking of VIs please open up the Custom PDF Generator help file and from the contents tag browse to:



About the Custom PDF Generator for LabVIEW >> Upgrade notes from V2 to V3

Installation

The Custom PDF Generator for LabVIEW version 3 uses VI Package Manager for easy automated installation and removal. You will need to install this software onto your computer before the Custom PDF Generator installation can be completed.



VI Package Manager

If you attempt to open the Custom PDF Generator .VIP file without VI Package Manager installed, LabVIEW may attempt to automatically download it. If this does not work, you will need to manually download it from the <u>JKI website</u>.

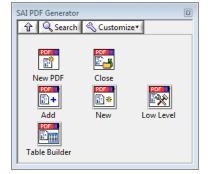
Install Process

Once VI Package Manager is installed you should be able to use it to open the Custom PDF Generator .VIP file. A wizard will guide you through the steps of the installation process. You will need to select the version of LabVIEW that you want to install on to and agree to the licensing terms.

Finding the Functions

When installation is complete, the Custom PDF Generator palette is accessible in LabVIEW under the 'Addons' section of the Functions Palette. VI Package Manager will refresh the LabVIEW Block Diagram palettes so the Custom PDF Generator VIs will be available. However for LabVIEW to display additional information under the LabVIEW Help menu, a restart of LabVIEW is required.

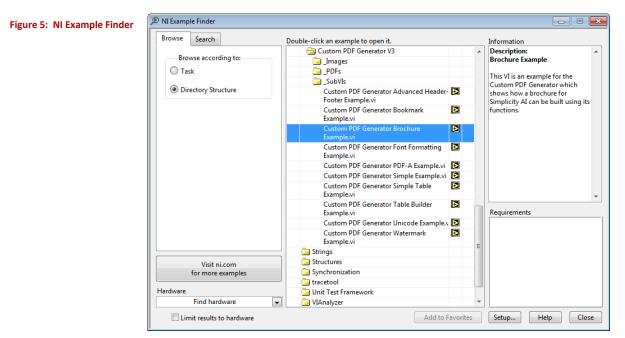
Figure 4: Custom PDF Generator Palette Screen



Example Programs

A comprehensive set of example VIs has been provided to enable you to rapidly get up and running with the Custom PDF Generator. These can be found using the NI Example Finder.

After opening the Example Finder, go to the Browse tab and select Directory Structure. Scroll through the folder list and locate the following directory.



Simplicity AI>>Custom PDF Generator V3>>_SubVIs

Help Features

LabVIEW context help is provided for every function within the Custom PDF Generator for LabVIEW. There is also a detailed help file that is available from the help menu and linked-to from the context help views.

Figure 6: Context Help	Context Help		
Figure 0. Context help	New PDF		
	[SAI_PDF_Toolkit.lvlib:Context.lvclass:SAI	_PDF_New PDF.vi]	
	Header/Footer Configuration	Context Out	
	PDF Configuration	- Path Out	
	Page Configuration	less error out	
	New PDF		
	This VI creates a new PDF and specifies some	of the document settings.	
	Encryption can be applied to the document of Note this VI can only be used to create PDFs	created.	
	size. For custom pages sizes the lower level Si		
	SAI_PDF_Open.vi must be used.		
	Detailed help		
	@ @ ? <		
	L		
	Simplicity AI Custom PDF Generator For LabVIEW		
Figure 7: Help File	ସ ⇔ ക r-		5
	Hide Back Print Options		_
	Contents Index	SAI PDF New PDF	Â.
	About the Custom PDF Generator for LabV	This VI creates a new PDF and specifies some of the document settings. Encryption can be applied to the document	
	Custom PDF Generator VIs and Functions SAI PDF New PDF	created. Note this VI can only be used to create PDFs of standard initial page size. For custom pages sizes the lower level	
	SAI PDF Close Sal insert	SAI_PDF_Create PDF_vi and SAI_PDF_Open.vi must be used.	2
	B 📄 Settings B 🦳 Table Builder	Character Encoding Header/Footer Configuration	
	Low Level About Simplicity Al	Path (Dialog if Empty) Context Out	
		PDF Configuration	
		error in (no error)	
		error in (no error) error in can accept error information wired from VIs previously called. Use this information to decide if any functionality should be bypassed in the event of errors	
		from other VIs.	
		Right-click the error in control on the front panel and select Explain Error or Explain Warning from the shortcut menu for more information about the error.	
		status status is TRUE (X) if an error occurred or FALSE (checkmark) to indicate a warning or that no error occurred.	
		Right-click the error in control on the front panel and select Explain Error or Explain Warning from the shortcut menu for more information about the error.	
		code code is the error or warning code.	
		Right-click the error in control on the front panel and select Explain Error or Explain Warning from the shortcut menu for more information about the error.	
		source source describes the origin of the error or warning.	
		Right-click the error in control on the front panel and select Explain Error or Explain Warning from the shortcut menu for more information about the error.	
		Path (Dialog if Empty) File path of new PDF file.	
		PDF Configuration	
		DDE Type Set the PDF specification type 0: Normal	
	I < →	1: PDF/A (Archive Standard)	-

Simple Tutorial: Hello World

Instructions on creating a simple 'hello world' VI.

- 1) From the block diagram window of a new VI, open the functions palette.
- 2) Browse to Addons>>SAI PDF Generator
- Drop a SAI_PDF_New PDF.vi and SAI_PDF_Close.vi onto the block diagram.
- 4) In the functions palette browse to Addons>>SAI PDF Generator>>Add
- 5) Drop a **SAI_PDF_Add_Text.vi** onto the block diagram.
- 6) Connect up the error cluster and PDF context wires as shown in the diagram below.
- 7) On the **SAI_PDF_Add_Text.vi** right click the **Text** input and create a constant. Enter 'hello world!' into this constant.
- 8) Run the VI and select a PDF file to create/over-write.
- 9) Open the PDF file to view the hello world message.

Figure 8: Hello world VI—block diagram	Hello World!			
	SAI_PDF_New PDF.vi	SAI PDF_Add Text.vi	SAI_PDF_Close.vi	error out
		Paragraph 🔻		

Evaluation Version

The Custom PDF Generator V3 for LabVIEW can be downloaded and installed free of charge for evaluation purposes. A limitation is imposed where all documents created will have a non-optional watermark printed across them. To remove this watermark, a license for the full version must be purchased.

The PDF/A and custom watermark features are only available in the fully licensed PDF generator. PDF/A files will generate, but the watermark will be placed over the document and is not transparent so content below the watermark cannot be seen. In the licensed version watermarks can't be added to PDF/A documents.

	Product 1	est Report			Simpl	city 🔯
		Tes	t Result S	Sheet		
Figure 9: PDF Output from Evaluation Version Showing Non- Optional Watermark		Se	Manufacturer: Simplicity rial Number : TZ-23294: Operator : T Jones Firmware : A0242 WO Number : SO34024		5	
			est Fail	ed	Al to expl	se
			N'AU		R	2
	Reg ID	Test Name	Limits	Result	Unit.	Status
	2.1	PSU Voltage	>10.5 <13.5	12.2	Volts	Passed
	2.1	V2			Volts	
	2.2	V2 V3	>4.5 <5.5 >3.2 <3.4	5.001	Volts Volts	Passed Failed
	3.2	R2		1.001		
	3.2	R2 R4	>0.95 < 1.05 >0.95 < 1.05	0.998	kOhm	Passed Passed
	3.3	R5	>0.95 < 1.05	1.12	kOhm 2	Failed
	3.5	R12	>9.9 < 10.1	1.12	kOhm	Failed
	0.0		-3.3 NU. VC		Ins. (IIII	
	37					
	3.7	R16	>9.9 < 10.1	10.01	kOhm	Passed
	3.8	R16 R17	>9.9 < 10.1 >9.9 < 10.1	10.01 9.991		Passed Passed
	3.8 4.1	R16 R17 P5	>9.9 < 10.1 >9.9 < 10.1 True	10.01 9.991 True	kOhm	Passed Passed Passed
	3.8 4.1 4.2	R16 R17 P5 P6	>9.9 < 10.1 >9.9 < 10.1 True False	10.01 9.991 True True	kOhm	Passed Passed Passed Failed
	3.8 4.1 4.2 4.3	R16 R17 P5 P6 P7	>9.9 < 10.1 >9.9 < 10.1 True False True	10.01 9.991 True True False	kOhm kOhm	Passed Passed Passed Failed Failed
	3.8 4.1 4.2 4.3 5.3	R16 R17 P5 P6 P7 Ch1 Pulse Width	>9.9 < 10.1 >9.9 < 10.1 True False True >4.8 <5.2	10.01 9.991 True True False 5.13	kOhm kOhm ms	Passed Passed Passed Failed Passed
	3.8 4.1 4.2 4.3 5.3 5.4	R16 R17 P5 P6 P7 Ch1 Pulse Width Ch2 Pulse Width	>9.9 < 10.1 >9.9 < 10.1 True False True >4.8 <5.2 >4.8 <5.2	10.01 9.991 True True False 5.13 5.42	kOhm kOhm ms ms	Passed Passed Passed Failed Passed Failed
	3.8 4.1 4.2 4.3 5.3	R16 R17 P5 P6 P7 Ch1 Pulse Width	>9.9 < 10.1 >9.9 < 10.1 True False True >4.8 <5.2	10.01 9.991 True True False 5.13	kOhm kOhm ms	Passed Passed Passed Failed Passed

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Full Version

A paid license must be purchased from Simplicity AI in order to benefit from the features of the full version. Visit the <u>Custom PDF Generator Webpage</u> to purchase a license on-line.

After a license is purchased, certificates containing login information will be issued to you. These will enable you to use the Custom PDF Generator for software development and executable deployment purposes.

Development Activation - With Internet Connection

If you have an internet connection you can activate the Custom PDF Generator development license using a simple automatic process.

▼	Show Context Help Lock Context Help	Ctrl+H Ctrl+Shift+L				
	LabVIEW Help Explain Error Help for This VI	Ctrl+?				
	Find Examples Find Instrument Drivers Web Resources					
	Add-ons	•	Custom PDF Generator 🔸	Developer Activation		
	IVI Class Driver Help SAI PDF Generator			Manual Licensing		
	Activate LabVIEW Components Activate Add-ons Check for Updates Customer Experience Improvement 1	Program				
	Patents About LabVIEW					

From the help menu select the following.

Help>Add-ons>Custom PDF Generator>Developer Activation...

Fill in the fields presented with details from the Custom PDF Generator V3 license certificate as in the image below.

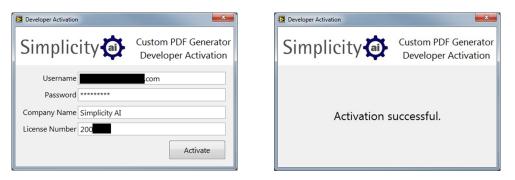


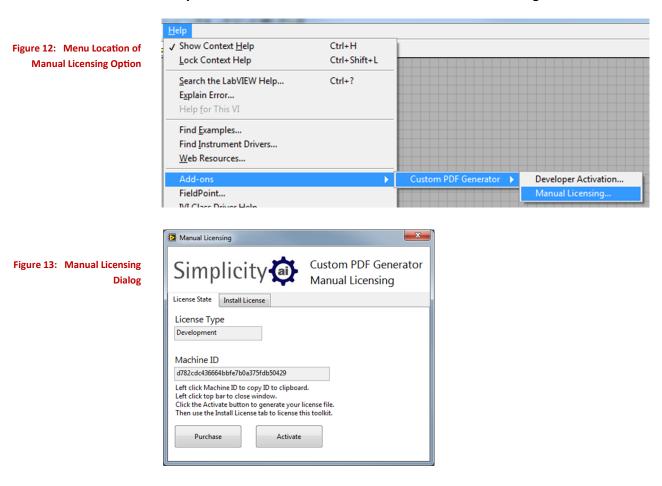
Figure 11: Developer Activation Dialog

Figure 10: Menu Location of Developer Activation Option

Development Activation - Without Internet Connection

If you do not have an internet connection on your development computer you cannot activate the Custom PDF Generator development license using the automatic method. Instead you will need to collect the Machine ID of your development computer and use the web browser on another computer, which is connected to the internet.

The Machine ID can be obtained through the Manual Licensing dialog, found on the LabVIEW Help menu under the following location.



Help>Add-ons>Custom PDF Generator>Manual Licensing...

Using a web browser on an internet connected computer access the <u>Simplicity</u> <u>AI client area</u>. Use the login information provided on your Custom PDF Generator license certificate.

	Secure Client Login
Figure 14: Client Area Login	Sector testing Sector testing >> Click to VERPY <<
	User Name/Email Address
	Password
	Please Enter User/Email Address and Password
	✓ Login
	Require Assistance Logging In?

Development Activation—Without an Internet Connection—Cont

To generate a license file, select the 'Activate Products' icon from the client area and a table will appear listing all licenses available for activation. Use the checkbox on the right to select the correct development license version and then click on the 'Activate Selected Products' button.

Figure 15: Client Area Activate	Sim Client Area	plicity	/ (a)										
Products Option Operation	SIMPLI	CITY AI CLIEN	IT AREA										
				F	lease Se	lect an Acti	ion						
			Fi	le Transfer									
	6		÷										
	Dow	nload Files	Upload Files										
			Prod	uct Activation									
			ICTS										
Figure 16: Activate Products		vate Selected Pro							v :	Sele	ct All	X Des	elect All
Selection											Search:		
	No. ^	Product			0	Ver. 0	туре ≎	Account		0	Quantity	No. Act	Activate
			erator for LabVIEV			V2-0-0	Dev	Client:			1	0	
			erator for LabVIEV			V2-0-0	Deploy	Client:			Unlimited	0	
			erator for LabVIEV			3.0.0	Deploy Dev	Client:			Unlimited	0	
	Showing	1 to 4 of 4 entries		. sereiopei		51010						•	

> A dialog will appear requesting your name, company, computer name and machine ID. To avoid mistakes it is recommended that you copy and paste the machine ID into the relevant field. After completing all the fields, click the submit button.

The license file download dialog will appear which will let you download a zip file containing your license. Click on the file name to begin downloading.

The *lic file inside the license zip needs to be copied into the correct location on the development computer to activate the development version. Browse to the following location and copy the file into it.

Windows XP

C:\Documents and settings\All Users\Shared Documents\Simplicity Al\Licenses\

Windows 7 or later

C:\Users\Public\Public Documents\Simplicity AI\Licenses\

Deployment Activation

The full version of the Custom PDF Generator enables you to build an unlimited number of executables from a development system. You need to include a deployment license file inside your LabVIEW project to enable this function.

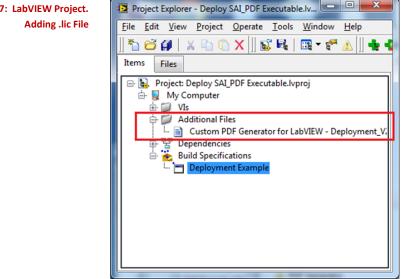
Using a web browser on an internet connected computer, access the Simplicity AI client area. Use the login information provided on your Custom PDF Generator license certificate.

To generate a license file, select the 'Activate Products' icon from the client area and a table will appear listing all licenses available for activation. Use the checkbox on the right to select the correct deployment license version and then click on the 'Activate Selected Products' button.

A dialog will appear requesting your name and company. After completing all the fields, click the submit button.

The license file download dialog will appear which will let you download a zip file containing your license. Click on the file name to begin downloading.

Once downloaded, extract the .lic license file from the zip file and save into a suitable location inside the directories of your LabVIEW project. Next add the file into your LabVIEW project items list as shown in the example below.





Deployment Activation—Cont

Create a build specification in the usual way as recommended by National Instruments. When you select the source files, ensure the deployment license file is selected as an "Always Included" item.

Category Information		Source Files
Source Files Destinations Source File Settings Icon Advanced Additional Exclusions Version Information Run-Time Languages Preview	Project Files My Computer Additional Files Custom PDF Generator for LabV	/IEW →
		Always Included Custom PDF Generator for LabVIEW - Dep
	<	•

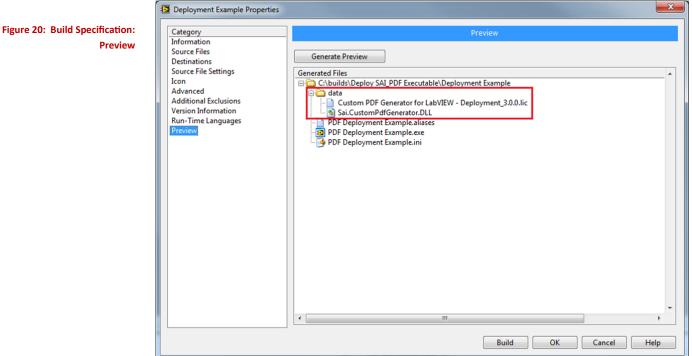
Once you have selected your destinations go to the Source File Settings page and make sure the deployment license file destination is the Support Directory.

gure 19: Build Specification:	Deployment Example Properties	
Source File Settings	Category Information	Source File Settings
Jource rife Settings	Information Source Files Destinations Source File Settings Icon Advanced Additional Exclusions Version Information Run-Time Languages Preview	Project Files Inclusion Type My Computer Additional Filer Additional Filer Destination Custom PDF Generator for LabVIEW Support Directory Dependencies Customize VI Properties
		 Remove front panel Remove block diagram No password change Remove password Apply new password
		Rename this file in the build Custom PDF Generator for LabVIEW - Build OK Cancel Help

Figure 18: Build Specification: Source Files

Deployment Activation—Cont

Complete the rest of the build specification as you require. Before you exit the Build Specifications Properties dialog, generate a preview. The output should be very similar to the following.



Complete Feature Listing

Figure 21: Complete Feature Listing

* A feature which has been newly added or revised in version 3.

Feature	Evaluation	Full
Documentation & Installation		
Automatic Installation Using VI Package Manager	~	~
Detailed Help File with Hyperlinks	~	~
Example Programs Covering All Major Features	~	~
Getting Started Guide *	~	~
LabVIEW Context help for all VIs	~	~
Graphics		
Embed LabVIEW Front Panel and Control Images	~	~
Embed Graphics Images (BMP, JPEG, PNG)	~	~
Free of Simplicity AI Watermarking	×	~
Watermarking of Pages	×	~
Layout		
Automatic Creation Date in Footer	~	~
Automatic Page Numbering in Footer	~	~
Define Header and Footer Information	~	~
Customize Headers Using Images, Tables and Shortcuts *	~	~
Embed Existing PDF Pages and Documents into a PDF	~	~
Licensing		
Each License enables use on 1 development PC	×	~
Each License enables use in unlimited deployed executables	×	~
Navigation		
Define Chapters, Sections and Custom Bookmarks	~	~
Internal and External Document Links *	~	~
Protection		
PDF/A-1b for Standardised Long Term Archiving	×	~
Add Password Encryption to PDFs	~	~
Table		
Embed Tables in Documents	~	~
Alternate Row Highlighting *	~	~
Column Spanning for Table Cells *	~	~
Header Rows *	~	~
Set Formatting of Individual Cells *	~	~
Text		
Multiple Font Support with Corresponding Style Formatting	~	~
Unicode Character Support *	~	~
Write LabVIEW Strings Directly into PDF	~	~

Further Information

Product Web Page

www.simplicityai.com/custom-pdf-generator/

Contact Us

Telephone: +44 (0)845 468 2886 or +1 877-717-1190

Email: info@simplicityai.com

Support

Basic support for installation and activation is included in the purchase price. This is intended to get users to the point where they can execute the included example VIs and build them into executables.

Extended support for your own custom development is available from Simplicity AI, by contacting us, or purchasing through our web store.