SigFit

Installation Manual SigFit 2020R11



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Sigmadyne, Inc. 1200C Scottsville Rd, Suite 350 Rochester, NY 14624 sigmadyne.com **Warning:** Use of this program is subject to the terms of the Demo Software Agreement or the Software Agreement agreed upon in writing with the User's authorized representative(s). Installation of this software indicates acceptance of the Software Agreement.

Technical Support

IMPORTANT: When contacting technical support please provide the following:

- 1. Your .sig file defining your SigFit analysis.
- 2. All files referenced by the .sig file. This includes FEA model files, FEA results files, OLOAD files, VECTOR files, etc.
- 3. The nature of the problem and the error you are seeing, if any.

Licensing Issues

Gregory Michels (585) 235-6892 michels@sigmadyne.com

Visual SigFit

Gregory Michels (585) 235-6892 michels@sigmadyne.com

SigFit Engine

Victor Genberg (585) 235-7460 genberg@sigmadyne.com

Gregory Michels (585) 235-6892 michels@sigmadyne.com

For more information about Sigmadyne visit our website at: sigmadyne.com.

The background theory used in SigFit is discussed in the following book & short courses:

Doyle, K., Genberg, V., Michels, G., Integrated Optomechanical Analysis, Second Edition, SPIE Press, November, 2012.

Integrated Optomechanical Analysis short course available from Sigmadyne, Inc.

SigFit short course available from Sigmadyne, Inc.

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1 Installation and Uninstallation

1.1 Upgrading the SigFit Applications

To upgrade SigFit from any SigFit version, simply follow the installation instructions in Section 1.3. The installer will automatically detect and optionally uninstall the most recent prior installation of SigFit. Note that SigFit 2020R1 and later use a new version of the license server software. Please be sure to upgrade your license server software to 11.17.0.0 with the installer SigmadyneFNPLicensingv11.17.0.0_x86_64.exe. You may use the same license file as you are using for the current license server software.

1.2 Installation Requirements

Installation of SigFit requires administrator permissions.

SigFit requires installation of Microsoft Visual C++ 2005 Redistributable SP1 with the latest security updates, Microsoft Visual C++ 2008 Redistributable SP1 with the latest security updates, and Microsoft Visual C++ 2012 Redistributable Update 4. The installer will install these redistributables automatically if the specific versions are not already installed.

SigFit has been tested on the following platforms:

Microsoft Windows 10 on Intel x86_64

Be sure that "Beta: Use Unicode UTF-8 for worldwide language support" is not checked. Some machines have been found to ship with this option checked. Checking this box results in a segmentation fault in a library call from wxPython to a Windows library when VSigFit is started. You can find this option in Settings > Time & Language > Administrative language settings (upper right under Related settings) > Change system locale.

😥 Region Settings	\times			
Select which language (system locale) to use when displaying text in prog that do not support Unicode. This setting affects all user accounts on the computer.				
<u>C</u> urrent system locale:				
English (United States)				
Beta: Use Unicode UTF-8 for worldwide language support OK Cancel				

SigFit help files are accessible from VSigFit or by the shortcuts in the Start menu require Adobe Reader.

1.3 Installation of the SigFit Application

WARNING: Installation of this software indicates your acceptance of the license agreement supplied with the software.

1.3.1 Installation of the SigFit Application Using the Installer GUI

The following steps will install SigFit and Visual SigFit as well as setting the appropriate environment variables. These steps must be performed on any machine on which the SigFit applications will be executed. Download SigFit2020R11_x86_64.exe from the Sigmadyne website using the username and password provided by Sigmadyne. To begin, double-click SigFit2020R11_x86_64.exe and follow the instructions.

IMPORTANT: Please verify that you see a message indicating that the software you are installing is by Sigmadyne, Inc. as a verified publisher. If Sigmadyne, Inc. is not shown as a verified publisher, then cancel the installation and contact Sigmadyne.

IMPORTANT: During the install process, some popup dialogs requiring a response may become hidden behind the main dialog window. If the install appears to be hung, simply move the displayed window(s) around to see if a dialog is present requiring a response. It is very common for the final dialog of the uninstallation of prior security device drivers to be displayed behind Uninstall – SigFit dialog.

A check for an existing installation is made. If a prior version is found, the user may request the installer to uninstall it.

Select	X	Confirm		
Uninstall version 2004R1p4 of Sign © Yes © No		Ŷ	CONFIRM Are you sure you want to r	uninstall the program SigFit?
<u> </u>				<u>Y</u> es <u>N</u> o
	UnInstall - SigFit UnInstall will remove the software SigFit while each of the following components is Shared program Standard program Folder items Program folders. Program director Program registry	from your computer. Please waik removed files m files ies res		
	QSetup		Close	

Once any detected prior installations have been removed, a Welcome banner will appear. Close any programs you may have running and pick Next. Read the License Agreement and indicate your acceptance by picking the radio button next to "YES" and pick Next.

Welcome	×	License Agreement
	Welcome to SigFit Setup program. This program will install SigFit on your computer.	License Agreement
	running this Setup program.	Please read the following license agreement carefully.
	Click Cancel to quit Setup and then close any program you have running. Click Next to continue with this Setup program.	Press the PAGE DOWN key to see the rest of the agreement. SIGFIT SOFTWARE LICENSE TERMS AND CONDITIONS
	WARNING: This program is protected by copyright law and international treaties. Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalities, and will be prosecuted to the maximum extent possible under law.	The use of SigFit is subject to Certain restrictions, as set forth in this license agreement between Sigmadyne, Inc. (Sigmadyne) and Customer. Customer's use of SigFit indicates acceptance of this license agreement. I. DEFINITIONS. (A) "SigFit" means the executable code(s) described in Section B of the Software License V C VES-IAccept the terms of the License Agreement! C NO-IDO NOT Accept the terms of the License Agreement!
www.sigmadyne.com	< Back Cancel	www.signadyne.com <back next=""> Cancel</back>

The Select Components dialogue as shown below can be used to choose which files to install. Select the files groups you wish to install and pick Next. The default installation is to install all files and is recommended.

Select Components			X
Select Components			
Select the components you want to inst want to install.	all, clear the com	ponents you do not	
Components:			
✓ SigFit Executables		0 KB	A
SigFit Documentation		0 KB	
MSC.PATRAN Support Files		0 KB	
ANSYS Support Files		0 KB	
NASTRAN Examples		0 KB	-
Description:			
These are the SigFit executable files.			 ▼
— Q5etup —			
www.sigmadyne.com	< Back	Next >	Cancel

Use the default installation directory or modify it and pick Next.

Choose Destination Location		×
Choose Destination Location		
Setup will install SigFit in the following	directory.	
To install to this directory, click Next .		
To install to a different directory, click I	Browse and select another directory.	
Destination Directory C:\Program Files\Sigmadyne\SigFit\2	Browse	
Space required on drive:	0.015 MB	
Space available on drive:	8612.9 MB	
— Q5etup —		
www.sigmadyne.com	< Back Next >	Cancel

Choose if you would like .sig files associated with SigFit.

Set File Association			×
Set File Association			
Setup will associate some file types with Select the file types you want to associ to associate.	a SigFit . ate, clear the file	types you do not :	want
File Types:			
✓ .sig SigFit Input File			
Q5etup			1
www.sigmadyne.com	< Back	Next >	Cancel

Use the default program folder name or modify it and pick Next.

Set Program Shortcuts			×
Set Program Shortcuts			
Setup will add Shortcut to the Start/Pr	rogram menu.		
Start/Program Menu			
SigFitv2008R1			
www.sigmadyne.com	< Back	Next >	Cancel

Verify the installation settings and pick Next.

Confirm Setup Settings	×
Confirm Setup Settings	
Setup has enough information to start copying the program files. If you want to review or change any settings, click Back .	
Target Directory: C:\Program Files\Sigmadyne\SigFit\2008R1	
Start/Program Menu Entry: SigFitv2008R1	
Click NEXT to begin copying files	
www.sigmadyne.com <back next=""> Co</back>	ancel

The selected files will copy to the installation directory.

Copying Files			×
Copying Files			
File: Sigfit-Demo-Agreement.pdf			
Folder: C:\Program Files\Sigmadyne\SigFi	it\2008R1		
			-
www.sigmadyne.com	< Back	Next >	Cancel

Once the files are copied a choice will be given to select the type of licensing system SigFit should expect to use. The license type chosen here will be stored in the system environment variable SIGFIT_LICENSE_TYPE.

Select	×
Select the license manager type.	
OK Cancel	

A message may appear emphasizing the importance of entering the license location on the next dialog. If you ignore this message and do not specify the correct license server location on the following dialog, please do not expect SigFit to obtain a license when running an analysis.

Attention		x
	ATTENTION The next dialog will allow you to set the FlexNet license server location. The default value 27001@type_server_name_here MUST be changed in order to obtain a license when running an analysis. Failure to do this will require you to set the environment variable SIGMADYN_LICENSE_FILE to the correct license location specification in order to run an analysis successfully. If you do not know the license location please contact your IT administrator. Sigmadyne does not know this information.	
	ОК]

If the FLEXnet licensing system is chosen then the location of the FLEXnet license will be required. This location is given in the form of *port_number@myservername*. The port number may be chosen by the user but must be consistent with that used in the FLEXnet license file. Be sure that the port number chosen does not conflict with any other ports being used on your system. Please be sure to specify the netowork name of the license server machine in place of myservername or whatever default character string is displayed after the @ symbol. Failure to properly specify the TCP/IP port and the network name of the license server will cause SigFit to fail when an analysis is performed. The license location specified here will be stored in the system environment variable SIGMADYN_LICENSE_FILE and may be edited there.

	💂 Enter Text 🛛 🗙
Please do NOT ignore this setting. SigFit will NOT run analyses without a correct license location. If you do not know the setting please ask your IT administrator.	FlexNet License Location (27001@servername). <p>The default 27001@type_server_name_here OK Cancel</p>

When the copy is complete pick Finish.

5	etup has finished copying files to your computer.
	Click Finish to complete the Setup.
www.sigmadyne.com	< Back

Installation of the Microsoft Visual C++ Redistributables will begin only if the versions used by SigFit are not already installed on your machine. Pick Yes to install the Microsoft Visual C++ 2005 Redistributable if the following dialog appears.



Pick Next to install the Microsoft Visual C++ 2008 Redistributable.

🚰 Microsoft Visual C++ 2008 Redistributable Setup	2
Welcome to Microsoft Visual C++ 2008 Redistributable Setup	
This wizard will guide you through the installation process.	
Next	> Cancel

If the Microsoft Visual C++ 2008 Redistributable is not already installed then the following window will appear. Check the box and pick Install. The redistributable package will install.

License Terms	
Be sure to carefully read and understand all the rights and restrictions described in t license terms. You must accept the license terms before you can install the software	he
MICROSOFT SOFTWARE LICENSE TERMS MICROSOFT VISUAL C++ 2008 RUNTIME LIBRARIES (X86, IA64 AND X64), SERVIC PACX 1 These license terms are an agreement between Microsoft Corporation (or based on where you live, one of its affiliates) and you. Please read them. They apply to the software named above, which includes the media on which you received it, if any. terms also apply to any Microsoft • updates.	E The
Pri	nt
Press the Page Down key to see more text.	
V I have read and accept the license terms	
$\overrightarrow{M}_{\zeta}$ I have read and accept the license terms.	
To have read and accept the license terms.	lancel
Thave read and accept the license terms.	Cancel
Thave read and accept the license terms.	Cancel
T have read and accept the license terms.	Cancel
To the read and accept the license terms.	lancel
To thave read and accept the license terms.	Cancel
Lup Setup is configuring the install. The take a minute or two.	iancel
Very have read and accept the license terms. Very Comp Very Setup is configuring the install. The take a minute or two.	is may
Lup Setup is configuring the install. The take a minute or two.	iancel

Pick Finish to complete the installation.

🚰 Microsoft Visual C++ 2008 Redistributable Setup	
Setup Complete	
Microsoft Visual C++ 2008 Redistributable has been successfully repaired.	
It is highly recommended that you download and install the latest service packs and security updates for this product.	
For more information, visit the following Web site:	
Product Support Center	
En En	sh

At this point the installation of the SigFit application is complete and the installation will close.

1.3.2 Installation of the SigFit Application Using the Command Line

The SigFit application may be installed by using command line operation by invoking the installer .exe filename from the command line with optional arguments for automated deployment. The optional arguments are as follows:

Option	Purpose
/Silent	No interaction with the user will be used. Installer will not uninstall prior version.
	Note fully silent operation requires use of /[SilentHide]=y as shown below.

/Hide	Installation will happen in the background with no status of progress shown. Note	
	fully hidden operation requires use of /[SilentHide]=y as shown below.	
/[SilentHide]=y	Custom dialogs for setting license information will be skipped. User will be required to set these setting manually. Please see subsections below. If you are	
	unsure of using this feature please use the graphical interface method.	
/InstallDir="Desination Directory"	Specification of the install directory. The default location is C:\Program Files\	
	Sigmadyne\SigFit\{version}.	

For fully silent and hidden installation be sure to use the following option combinations. Note the use of [] is very important.

/Silent /Hide /[SilentHide]=y

1.3.3 Changing the License Environment Variables of an Existing SigFit Client Installation

If you would like to change the license location of an existing SigFit client installation make the changes as shown in the table below.

- 1. Be sure the system environment variable SIGFIT_LICENSE_TYPE is set to FLEXNET.
- 2. Edit the system environment variable SIGMADYN_LICENSE_FILE and set it to the location of the FLEXnet license in the form of *port_number@servername*. If you do not know this information please contact your IT administrator.

1.3.4 Customization of Registry Entries

For users who wish to create a remote installation of SigFit on a server for use by client users there are registry entries that must be setup on the client machine to point to the network library folder used by SigFit. Registry creation files are provided in the folder Registry_Support in the SigFit installation directory. Before executing these registry files on a client machine the string <InstallDir> must be replaced with the network path to the SigFit server installation folder.

1.3.5 Installation of the MSC PATRAN Plotting Template Files

The MSC PATRAN template files for making plots of SigFit results within MSC PATRAN can be found in the MSCPatran_Support folder of the SigFit install directory. You may copy these files to a convenient location in the res_templates folder in the MSC PATRAN install directory. It is suggested that any customized templates be placed in a subfolder such as *{MSC PATRAN install}*\res_templates\Custom. This will allow easier browsing of the SigFit template files rather than browsing amidst the more than 60 templates in the res_templates folder level.

1.3.6 Installation of the Macro Files for ANSYS Mechanical APDL and ANSYS Workbench

For use with ANSYS Mechanical APDL and ANSYS Workbench macro files shipped with SigFit must be installed in the ANSYS APDL directory. The ANSYS macro files can be found in the ANSYS_Support folder of the SigFit install directory. Place the macro files *sigout.mac*, *sigout_select.mac*, and *sigfit_library.lib* in a directory location automatically visible to ANSYS. This may be the APDL macro directory (C:\Program Files\ANSYS Inc\v110\ANSYS\APDL in version 11.0), the user home directory, or, an alternate location which will be searched by ANSYS. Consult the ANSYS documentation for additional information relating to the placement of macro files so that they are visible to ANSYS Mechanical APDL.

1.3.7 Installation of the CSV Plot Extension for ANSYS Workbench

Users wishing to graphically plot in ANSYS Workbench results from SigFit will need to download and install an ACT extension available from the ANSYS AppStore.

- 1. Browse to <u>https://catalog.ansys.com/</u> and search for "CSV Plot".
- 2. Download the CSV Plot application archive and extract the contents to your hard drive.
- 3. Open ANSYS Workbench and pick Extensions and Install Extension
- 4. Browse to the location of the extension wbex file in the bin folder of the archive you extracted and pick Open
- 5. Pick OK for the confirmation message

Please note that each time you start ANSYS Workbench you will need to load the installed extension.

1. Pick Extensions and Manage Extension.

2. Check the box next to CSV Plot to load the extension.

The next time you start ANSYS Mechanical you will be able to create CSV plots of SigFit results as described in the Tutorial examples.

1.3.8 Installation of the ABAQUS ODB API Library

The SigFit interface to ABAQUS requires use of the ODB API library supplied by SIMULIA in addition to a call to ABAQUS itself. Therefore, users must have ODB API library and ABAQUS installed on the machine on which SigFit is to run. In current versions of ABAQUS the ODB library is installed automatically and SigFit is coded to find it as long as the user has selected the proper version of ABAQUS in the Solution or Parameter modules of SigFit.

1.3.9 Installation of the CODEV User Defined Gradient Index Lens DLL

In order to use the results files generated by SigFit with the thermo-optic user-defined gradient index lens feature, the DLL files supplied with SigFit must be placed in the CODEV UMR directory generally located at *{CODEV installation folder}*\umr. It is important for the user to note that only versions of CODEV 10.6 and later are suitable for use with this feature. The DLL files supplied with SigFit can be found in the CODEV_Support folder in the SigFit installation path. Note that this DLL can change between versions of SigFit so be sure to update it when upgrading SigFit.

1.3.10 Installation of the ZEMAX User Defined Gradient Index Lens DLL

In order to use the results files generated by SigFit with the thermo-optic user-defined gradient index lens feature, the DLL files supplied with SigFit must be placed in the ZEMAX DLL directory generally located at C:\Program Files\Zemax\DLL\Surfaces, C:\Program Files\Zemax OpticStudio\DLL\Surfaces, or

{User_Documents}\Zemax\DLL\Surfaces. Later versions of ZEMAX do not allow the use of the DLL/Surfaces folder in the Program Files installation path. Consult the ZEMAX user documentation for the correct installation location of the user defined surface DLLS files. The DLL files supplied with SigFit can be found in the ZEMAX_Support\UserGRIN folder in the SigFit installation path. Note that this DLL can change between versions of SigFit so be sure to update it when upgrading SigFit.

1.3.11 Installation of the ZEMAX User Defined Surfaces DLL

In order to use the result files generated by SigFit for the surface types and fitting polynomial types shown in the table below, the listed DLL files must be copied into C:\Program Files\Zemax\DLL\Surfaces or C:\Program Files\Zemax OpticStudio\DLL\Surfaces. DLL files may be found in the ZEMAX_Support\Surfaces folder in the SigFit installation path.

Surface Type	Fitting Polynomial Type	User Defined Surface DLL
Anamorphic	Standard Zernike	sigfit_anamr_szrn.dll

1.4 Installation of Sigmadyne FLEXnet Licensing

If you are upgrading from a prior version of the license server software please be sure to either stop the existing license server by using the lmtools utility or uninstall the license server software. If you uninstall the current license server please be sure to copy the license file from the license server install location. Please note that previous versions of the license software in stall to C:\Program Files (x86)\Sigmadyne\SigmadyneFNLicensing while the current version installs to C:\Program Files\SigmadyneFNLicensing.

Sigmadyne FLEXnet licensing is installed on the license server only by double-clicking Sigmadyne FNPLicensingv11.17.0.0_x86_64.exe. If you have a license certificate file for a specific license server machine, then be sure to install the license server software on that machine. No licensing software is required on client SigFit installations using Sigmadyne FLEXnet licensing.

Follow the instructions of the installation dialogs. You will be given a choice to install a license file.

= Do you want I	o install a SigFit licen:	se file now?	
• Yes	-		
O No			

If you answer yes, then you will be prompted to pick a license file which will be installed and used to start the FLEXnet service named Sigmadyne License Manager.

Select SigFit Lice	nse File	<u>?</u> ×
Look in:	Sentire Network 💽 📀 😥 💌	
My Recent Documents Desktop My Documents My Computer	Microsoft Terminal Services Microsoft Windows Network Web Client Network	
My Network	File name:)pen
	Files of type: Kat	ancel

This will complete installation of the FLEXnet licensing software. To further configure the FLEXnet license manageruse the lmtools utility found in Start/SigmadyneFNPLicensingv11.17.0.0.

1.4.1 Firewalls and Sigmadyne FLEXnet Licensing

Two rules must be added to the license server machine if a firewall is used on the license server machine. The instructions below apply to the Windows Firewall in Windows 10. Add rules similar to those described below for other firewall software. Open the Control Panel from the Start menu. If the icons are displayed by Category then pick System and Security and then pick Windows Firewall. If all icons are shown then simply pick Windows Firewall. Pick Advanced Settings as shown below.



Pick Inbound Rules and then under Actions pick New Rule...

	Actions	
	Inbound Rules	-
	🗱 New,Fiyle	
	Tilter by Profile	•
	🝸 Filter by State	•
Windows Firewall with Advanced S	🝸 Filter by Group	•
Inbound RNes	View	•
Connection Security Bulles	Q Refresh	
E Monitoring	🛃 Export List	
	? Help	

Select Program for the Rule Type as shown below. Pick Next.

Rule Type Select the type of firewall rul	e to oreate.	
Steps: Plate Type Pogen Action Profile Name	Wat yop of all would you like to create? C Create C Para C	- Cancel

For the program path browse to the location of lmgrd.exe located in the platform dependent location specified in the table below.

Platform	Path to Imgrd.exe and SIGMADYN.exe
64 Bit Windows	C:\Program Files\Sigmadyne\SigmadyneFNLicensing

Pick Next.

ipecify the full program pat	and executable name of the program that this rule matches.	
Rule Type Program Action Profile Name	Does the rule apply to all programs or a specific program? All programs Rule applies to all connections on the computer that match other rule properties. G. This encourse path-	
	Longarnes (, ball, gonagne Gyndyne Huberny argot en toese Bangle: c) gaft gogan en Mingantifes Userver beweer en	
	Learn more about specifying programs	ß

For the Action specify to Allow the connection. Pick Next.

💣 New Inbound Rule W	fizard	×
Action		
Specify the action to be tak	ten when a connection matches the conditions specified in the rule.	
Steps:		
Rule Type	What action should be taken when a connection matches the specified conditions?	
Program	Allow the connection	
 Action 	This includes connections that are protected with IPsec as well as those are not.	
Profile	C Allow the connection if it is secure	
	The includes only connections that have been authenticated by using Place. Connections Numerous and using the settings in Place properties and uses in the Connection Security Numerous Connection Block the connection	
	Learn more about actions	
	and Research Court	1
	CauxCauxa	

For the Profile it is probably not necessary for your network to allow Public access so that can be unchecked. Pick Next.

Specify the profiles for which this rule Steps: Program Action Profile Profile Name	ute applies. When does this rule apply? FP Domain Applies when a computer is connected to its corporate domain. FP Invide
Steps: Plue Type Program Action Profile Name	When does this note apply?
 Program Action Profile Name 	Domain Applies when a computer is connected to its corporate domain. Private
Name	Private
	Apples when a computer is connected to a privale network location.
	Learn more about profiles

Specify a rule name of Sigmadyne lmgrd (TCP) and pick Finish.

Nemo	ro	<u> </u>
Name		
Specify the name and descript	ion of this rule.	
Steps:		
Rule Type		
Program		
Action		
Profile	Name:	
 Name 	(Sigmadyne imgra (TCP)	
	Description (optional):	
	6	
	C Back Finish Cancel	1
	Color	

After the rule is created double-click the rule shown in the Inbound Rule list. In the Protocols and Ports tab select TCP for the Protocol type. Specify the Local port to be the Specific Port of 27001 or whatever port number is used in the license file. Pick OK.

Sigmadyne	lmgrd (TCP) Properties	×
Gene	eral Programs and Services Computers sols and Ports Scope Advanced Users	
Protoco	ols and ports	-1
*	Protocol type: FCP	
	Local port: Specific Ports	
	Remote port: All Ports	
	Internet Control Message Protocol Customize (ICMP) settings:	
Learn mo	are about protocol and ports	
	OK Cancel App	ily .

A second inbound rule should be added in a similar fashion to allow SIGMADYN.exe to pass TCP traffic on any port number or a port number specified in the license file. The port number for SIGMADYN.exe may be specified by adding PORT=*port_number* to the end of the VENDOR line in the license file. If this port specification is not made in the license file, then it is important that any port be allowed for SIGMADYN.exe as the port number may change if the license manager service is restarted.

Gene	ral lo		Program	and Ser	vices		Comp	ters
Protoco	is and Por	18	Sci	ope	Adv	anced	1	Users
Protocol	ls and port	s —						
-	Protocol	type:		TCP				
	Protocol	number	r.		6			
	Local po	t:		All Ports			٣	
				Example	80, 443.	5000-50	10	
	Remote p	port:		All Ports			-	
				Example	80, 443,	5000-50	10	
	Internet ((ICMP) se	Control attings:	Message	Protocol		Custo	mize	
am mor	e about pr	010001	and pons					

1.5 Testing Your Installation of SigFit

Testing your installation requires opening an existing file supplied with the examples and running an analysis. Please follow the following steps:

- 1. Double click the file at C: \Program Files\Sigmadyne \SigFit\{
version}\Test\test.sig.
- 2. Pick File, Run..., and Submit.
- 3. The job should run with no errors as shown below.

Polynom Coef found for Surface#= 1 Epsilon check on Solution Vect = 5.072930053930198E-016 Begin Polynomial Write End-of-Job SigFit job 23952 finished successfully	•
Submit Cancel SigFit	Dismiss

If a FLEXnet License Finder dialog appears, pick Cancel and see Section 1.7 below paying particular attention to 1.7.1 point 1, failure to properly specify a license location during install.

1.6 Uninstallation of the SigFit Application

SigFit may be uninstalled by the remove program feature in the Control Panel.

- 1. Double-click the Control Panel in My Computer.
- 2. Double-click the Add/Remove Programs icon.
- 3. Pick SigFit from the list and then pick Remove.
- 4. Pick Close after the uninstallation is complete.

1.7 Troubleshooting the FLEXnet Licensing System

If SigFit fails to access the license the following dialog will appear.

FLEXnet License Finder	X
Your application was not able to obtain a license because the FLEXnet license server manager could not determine where to find the licensing data it needs. Please choose one of the following:	•
 Specify the License Server System Specify the License File 	
Copyright (c) 1999-2007 Macrovision Corporation	
Cancel <back next=""></back>	

Do not attempt to specify the license through this dialog. If you get this dialog it means the license is inaccessible and the reason for this needs to be determined before attempting to run SigFit. Hit Cancel and follow the instructions below.

1.7.1 Quick Things to Check

There are a few common causes for failure to find a license as listed below.

- 1. The most common cause of failure to obtain a license is the failure to properly specify the location of the license server when SigFit is installed as shown earlier in the installation procedure. See Section 1.7.5 for instruction on checking this. Please at least perform this step before contacting Sigmadyne support for help with licensing issues.
- 2. Installation of License Sever Software: When installing SigFit for the first time there are two pieces of software to be installed. The SigFit application is installed on all client machines and the licensing software is installed on the license server. Please be sure that you have followed the steps in Section 1.4.
- 3. Restart License Server for W7 OS and Later: On newer operating systems such as Windows 7 and later the licensing service may only start with a restart of the machine. Try restarting the license server machine and then rerunning SigFit.
- 4. Allow Communication Through Firewalls: The licensing system uses TCP/IP to communicate and can be blocked by firewalls. Please be sure to follow the instructions in Section 1.4.1.

1.7.2 Accessing the Debug Log File

The licensing system writes a debug log file on the license server machine. This log file is often helpful in understanding why the license is not obtained when running SigFit. The debug log file is located in the path location shown in the table below.

Architecture of License Server Machine	Debug Log File Location
64 bit	C:\Program Files\Sigmadyne\SigmadyneFNLicensing\debug.log

Please check with your IT department for permission to send this file to Sigmadyne, and then send the file to <u>michels@sigmadyne.com</u>. You may want to wait for Sigmadyne to advise what steps to take next or you may continue with troubleshooting as described below.

1.7.3 Determining if the License Service is Running

The next step in troubleshooting licensing issues is to understand if the service that serves the license is running on the license server machine. To perform these steps you will need access to the desktop of the license server machine and administrative privileges.

1. Open the Windows Control Panel and be sure you are viewing the contents by Small Icon or Large Icon, not by Category.

© Control Panel	ntrol Panel 👻		- 🚱 Search C	
Adjust yo	ur computer's settin	gs	View by: Category Category	
	System and Security Review your computer's status	<u>.</u>	User Acc Change Large icons Change Small iccos	_
	Back up your computer Find and fix problems	S	Appearance and Personalization Change the theme	
<u>e</u>	Network and Internet View network status and tasks	~	Adjust screen resolution	
	Choose homegroup and sharing options		Clock, Language, and Region Change keyboards or	-

2. Pick the Administrative Tools icon and then right-click Services and pick Run as Administrator to view the services running on the machine with administrator privileges.



3. Scan down the list with the scroll bar and look for "Sigmadyne License Manager." The Status should be Started or Running and the Startup Type should be Automatic.

🔍 Shell Hardware Det	Provides n	Started	Automatic	
🤹 Sigmadyne License		Started	Automatic	
🔍 Skype Updater	Enables th		Automatic	

- 4. If the status is blank then select the service in the list and pick Action/Start.
- 5. If the service does not start then try restarting the license server machine.
- 6. Report to Sigmadyne the results of these steps.

1.7.4 Checking the License Server Status in LMTOOLS

This step is of no utility unless the "Sigmadyne License Manager" service is running as illustrated in the previous subsection. If the licensing service is running then the next step in troubleshooting licensing issues is to check the status in LMTOOLS. LMTOOLS may be launched from the SigmadyneFNLicensingv11.17.0.0 program group under the Start menu as shown below. Be sure to right-click on the icon and select Run as administrator.

📕 Sigma	dyneFNLicensingv11.17.0.0 ^				
2 In-+-	-∙- -⇔ Pin to Start			x	•
	More	>	-t⊐ Pir	n to taskbar	
<u>э</u> жу	🔟 Uninstall		⊑∂ Ru	n as administrator	
Snip o			D of	en file location	

- 1. On the Service/License File tab be sure that Sigmadyne License Manager is selected and that "LMTOOLS ignores license file path environment variables" is checked.
- 2. On the Server Status tab pick Perform Status Enquiry. If the license is accessible then the output should look something like the below. If the license is accessible then the highlighted regions should be present. If these contents are present and the client SigFit application still fails to obtain a valid license then it is most likely that there is a firewall block between the client SigFit application and the license server

```
Status
_ _ _ _ _ _ _ _ _
Flexible License Manager status on Sun 5/3/2020 14:26
[Detecting lmgrd processes...]
License server status: 27001@POP2
   License file(s) on POP2: C:\Program Files\Sigmadyne\SigmadyneFNLicensing\license.dat:
             icense server UP (MASTER)
      POP2: 1
                                       v11.17
Vendor daemon status (on POP2):
  SIGMADYN: UP v11.17.0
Feature usage info:
Users of SIGFIT STANDARD:
                           (Total of 1 license issued;
                                                         Total of 0 licenses in us
Users of SIGFIT ADAPTIVE: (Total of 1 license issued; Total of 0 licenses in use)
Users of SIGFIT DYNAMICS: (Total of 1 license issued; Total of 0 licenses in use)
Users of SIGFIT DESOPTEQN: (Total of 1 license issued; Total of 0 licenses in use)
Users of SIGFIT DNDT DNDS BIRE: (Total of 1 license issued; Total of 0 licenses in use)
```

3. If the status inquiry fails then output will be something like that shown below.

```
Status
Status
Flexible License Manager status on Wed 5/6/2015 11:04
[Detecting lmgrd processes..]
License server status: 27001@POP2
License file(s) on POP2: C:\Program Files\Sigmadyne\SigmadyneFNLicensing\license.dat:
lmgrd is not running: Cannot connect to license server system.
The license server manager (lmgrd) has not been started yet,
the wrong port@host or license file is being used, or the
port or hostname in the license file has been changed.
Server name: 192.168.0.53
License path: 27001@POP2;
FLEXnet Licensing error:-15,10. System Error: 10061 "WinSock: Connection refused"
```

For further information, refer to the FLEXnet Licensing End User Guide, available at "www.macrovision.com".

- 4. Please report the results of the above to Sigmadyne.
- 1.7.5 Checking the Environment Variables on the SigFit Client Machine

The SigFit application uses two system environment variables in order to obtain a license. The environment variables are described in the table below.

System Environment Variable	Value	Notes
SIGFIT_LICENSE_TYPE	FLEXNET	This value is used verbatim.
SIGMADYN_LICENSE_FILE	port_number@servername	<i>port_number</i> is the TCP/IP port number specified in the license file for communication. The default is 27001. You may optionally change the port number in the license file but it must be consistent with this setting on the client machine(s).
		<i>servername</i> is the network name of the license server machine. Obtain this name from your IT staff.

You may verify the values of the environment variables by following the steps below.

1. Right-click the Computer icon on your desktop or in the Start menu and pick Properties.



2. On the left-hand side pick "Advanced system settings."



3. At the bottom of the pop-up window pick Environment Variables...



4. Under System Variables scroll down to the variables SIGFIT_LICENSE_TYPE and SIGMADYN_LICENSE_FILE. Check that the settings are as intended.

System variables					
Variable	Value 🔺				
PSModulePath	C:\Windows\system32\WindowsPo\				
SIGFIT_LICENSE_TYPE	FLEXNET				
SIGMADYN_LICENSE_FILE	27001@zing				
New Edit Delete					

5. If the values are not as intended they may be edited by double clicking the variable in the list.