

Install Instructions for SINDA/FLUINT and Thermal Desktop

These instructions only apply to trial and student installations

This installation process will install SINDA/FLUINT and Thermal Desktop, which includes RadCAD, FloCAD, and TD Direct. These modules are activated individually with the appropriate license files. Additionally, this procedure will guidance for installing prerequisite software.

If you are evaluating CRTech software and already have the Intel Fortran compiler installed on your computer, please use our standard <u>Install Instructions for SINDA/FLUINT and</u> <u>Thermal Desktop</u>.

Before Installing

- 1. Verify your computer meets the CRTech System Requirements.
- 2. Ensure the person performing the installation has administrator access.
- 3. Prior to installing, turn off *User Account Control* through the Windows *Control Panel* and restart the computer.

Prerequisite Software

The following software must be installed prior to installing CRTech software.

• Intel Fortran compiler, required to support SINDA/FLUINT

- Microsoft Build Tools 2019 (recommended) or Visual Studio Professional or Community version, required to support Intel
- AutoCAD, required to support Thermal Desktop
- Spaceclaim Engineer, required if you are evaluating TD Direct

Intel Fortran Compiler

You must have the Intel Fortran compiler installed on the computer.

If you do not already have the Intel compiler installed on the computer, download *Intel* oneAPI HPC Toolkit. This is a free download, there is a download link to Intel install instructions below. Please follow these instructions carefully since the install must be customized.

View or download: <u>CRTech Intel oneAPI HPC Toolkit installation Instructions</u>

AutoCAD

If you do not have AutocCAD installed, download and install the <u>30-day free trial</u> or <u>student</u> <u>version</u>. After installing, open it at least once to verify its functionality and licensing.

SpaceClaim

If you are evaluating TD Direct, verify SpaceClaim is installed on the computer. Open it at least once to verify its functionality and licensing.

Download Required CRTech Installers

Download the following installers from our Trial Download page. You will need to be logged into our website to access this page.

- 1. SINDA/FLUINT Installer Available from our Trial Download page
- 2. Thermal Desktop Installer Available from our Trial Download page

Install SINDA/FLUINT

- 1. Close any other applications you may have running
- 2. Double-click on the SINDA/FLUINT installer: SindaFluint[version number]N_64.exe
- 3. The program will prompt you for directories and paths
- 4. When the installer is done, click Finish

Install Thermal Desktop

- 1. Close any other applications you may have running
- Double click on the Thermal Desktop installer: ThermalDesktopAcad[version number]_64.exe
- 3. The program will prompt you for directories and paths
- 4. When the installer is done, click Finish

Install CRTech License

- 1. If you do not have a license pack from us, contact our support team.
- 2. Install the license pack per our License Install Instructions.

Verify Thermal Desktop Installation and Licensing

1. Move to the following location on the computer where you will find a test file to verify the software and all related licensing is working.

C:\Users\Public\Public Documents\CRTech\ThermalDesktop

- 2. Right click on the file *beercan.dwg* and select "Open With", then select "Choose another app". Select AutoCAD DWG Launcher, check the box to always use this application. After this you can just double click on a *.dwg file to open it.
- 3. The test model should open in AutoCAD and will appear similar to either of the graphics below. Depending on your exact version of AutoCAD and Thermal Desktop, the ribbons and toolbars may vary. If the half cylinder appears correctly, continue to the next step.





If you see the error message indicating "Unable to get a license" as shown below, you may not have installed the license properly. Look in the Thermal Desktop installation directory (C:\Program Files\Cullimore and Ring\Thermal Desktop\) and verify there is a file called radcad.lic.



If you get an error window as shown below, your license file does not match the installed version of Thermal Desktop.



If you need new licenses, please see the <u>License Install Instructions</u> and follow the steps to Request Licenses. If you see a different error, or cannot resolve the issue, follow the steps in the License Install Instructions to Run a License Report.

4. If the model file opened, click on the green circle icon (Thermal > Case Set Manager)

to open the Case Set Manager shown below. Click on Hot Case in the left panel (it should turn blue when highlighted), then click on the **Run 1 Selected Case** button in the lower left corner of the window.

Case Set Manager		
All Case Sets Case Set 0 Hot Case		Manage Case Sets Add Copy Change Name/Group Delete Edit Edit Compare Import Export Options Save drawing before running Run with lower system priority Run Jobs in Demand Mode Prompt ii Duplicate Nodes Found Model contains no logic objects
Run 1 Selected Case	OK Cancel	Help

After click the Run button, a SINDA/FLUINT Processor Status window will appear on the screen followed by the message box shown below stating "Successful completion of processor." If you see this window, Thermal Desktop and SINDA/FLUINT are installed and working properly.

If you get an error message, please run a License Report as outlined in the <u>License Install</u><u>Instructions</u>.

🖳 Meshing Status					
Begin meshing Checking geometry Geometry OK Loading geometry Created a matched assembly model Mesh case created Global mesh controls set Local mesh controls set Ertities matched Meshing sufaces Meshing volumes Meshing completed, please check Thermal Desktop for completion of mesh transfer.					
Volume Meshing					
Volume Mesh Improver					
Volume Smoothing					

Supporting Materials

View our online <u>Getting Started Guide</u> for additional learning resources.

Q&A: Checking for Existing Intel Installation

To check if you already have the Intel compiler installed, open the Control Panel on your computer (type "Control Panel" in the search field of the start menu). Click on **Programs and Features.** Sort programs by **Name** and then scroll down to "Intel" and see if you have Intel Parallel Studio installed. If you see "Intel Parallel Studio XE", similar to the graphic below, with Intel Corporation as the publisher, you have Intel already installed. In this case, you can continue with your installation of CRTech software.

Control Panel/All Control Panel Items/Programs and Features								
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	Control Panel Home							
	View installed updates	To uninstall a program, select it from the list and then click Uninstall, Change, or Repair.						
•	Turn Windows features on or							
	off	Organize 🔻 Uninstall Change Repair						
		Name	Publisher	Installe	d On Siz			
		😘 Intel(R) Management Engine Components	Intel Corporation	12/28/2	2018			
		Intel(R) Parallel Studio XE 2019 Update 1	Intel Corporation	3/25/2	019			
		🖸 Intel(R) Software Manager		3/25/2	019			
🛃 Intel(R) Visual Fortran Redistributables for Windows* on Intel(R) 64		Intel Corporation	7/2/20	15				
腸 Intel® Graphics Driver		😬 Intel® Graphics Driver	Intel Corporation	12/28/2	2018			
Contel® Processor Identification Utility Intel Corporation		Intel Corporation	6/22/2019					