Service Pack 1 for Autodesk Simulation CFD 2013

September 24, 2012

Release Notes - Read Me file

Autodesk, Inc.

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Installation Preparation

Prior to installing Autodesk Simulation CFD Service Pack 1, you will need to uninstall any previous versions of Autodesk Simulation CFD 2013.

To check if an earlier version has previously been installed, open the Control Panel (Start > Control Panel), select Programs and Features (Add/Remove Programs on Windows XP systems) and look for entries titled Autodesk® Simulation CFD 2013.

To uninstall an earlier version of Autodesk® Simulation CFD 2013:

1. Verify that Autodesk® Simulation CFD is not running.
2. Open the Control Panel (Start > Control Panel).
3. Select Programs and Features (Add/Remove Programs on Windows XP systems).
4. Select the entry you want to remove and click **Uninstall/Change** (**Change/Remove** on Windows XP systems) to launch the uninstall procedure.
5. Restart the computer to complete the uninstall of the software.

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Download Location

You can download the Autodesk Simulation CFD Service Pack 1 installation by clicking **here.**

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Installation Requirements

- Autodesk Simulation CFD supports Windows® 7 Home Premium, Professional, Enterprise, Ultimate (SP0 or SP1 for x86 and x64); and Windows XP Professional (x86: SP3, .net 4.0; x64: SP2, .net 4.0 SP1).
- Verify that you have administrator privileges on your local machine to install Autodesk Simulation 2013 SP1.

For a complete list of installation requirements, click here.

The 32-Bit and 64-Bit versions of Autodesk® Simulation CFD are delivered in separate installation packages. It is important to install the correct version for your system. The 64-bit version of Autodesk® Simulation CFD cannot be installed on a 32-bit system, nor can the 32-bit version be installed on a 64-bit system.

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Installation Instructions

Autodesk® Simulation CFD uses an Installation Wizard to guide you through the installation process.

1. Log in to the computer using an account with **Administrator** privileges.
2. Exit any Autodesk® programs that are currently running.
3. You can install Autodesk® Simulation CFD from either a downloaded installation executable or from an installation DVD.
    - If installing from a downloaded executable file, navigate to the file, right click on it, and select **Run as Administrator**. (For an XP computer, just double-click on the installation executable to start the installation.)
    - If installing from the DVD, insert it into the DVD drive. If Autorun is enabled, the DVD main menu displays automatically. Otherwise, navigate to the DVD drive folder, right-click on **setup.exe**, and select **Run as Administrator**. (For an XP computer, double-click on **setup.exe** to start the installation.)
4. After the Installation Wizard initializes, the **Welcome** page appears.
    - Click **Install** to begin the installation process.

5. The **License Agreement** page appears.

    - Select the appropriate entry in the **Country or Region** list.
    - Review the agreement.
    - Select the option to accept the agreement.

Note: If you reject the license agreement, you cannot install the software.

6. The **Product Information** page appears.

    - Enter a **Serial number** and **Product key** for one of the modules that you purchased. (It does not matter which module you use.)
    - Select the **License Server Model**. There are three options:
    - **Single License Server**: In the single license server model, the Network License Manager is installed on a single server. License management and activity is restricted to this server. A single license file contains the total number of licenses available on the server.
    - **Distributed License Server**: In the distributed license server model, licenses are distributed across multiple servers. A unique license file is required for each server. To create a distributed license server, you must run the Network License Manager on each server that is part of the distributed server pool.
    - **Redundant License Server**: In the redundant license server model, you use three servers to authenticate a single license file. One server acts as the master, while the other two provide backup if the master server fails. Licenses are monitored and issued as long as at least two servers are functional. The license file on all three servers is the same. You must install the Network License Manager on each server.

Note: **Network License** is the only license type available for Autodesk® Simulation CFD.

Check with your system administrator if you are unsure which model to select.

- Enter the name of the license server computer what will run the Network License Manager (NLM).

    - If the NLM is installed on another computer, enter the name of that machine. (Do not enter the name of the local machine.)
    - If the NLM is installed and configured to run on the local machine, enter **127.0.0.1** as the license server name. If the "FLEXnet License Finder" dialog opens when Autodesk® Simulation CFD is first started, enter **127.0.0.1** as the **Computer Name of the License Server System**.

    Note: Check with your system administrator if you are unsure which computer to specify.

7. The **Configure Installation** page appears.

    - Select **Autodesk Simulation CFD**.
    - Optionally, select **Autodesk Inventor Fusion 2013**. Fusion does not require licensing, and provides unique capabilities for editing 3D geometry data, regardless of the source. It is a powerful design exploration tool.
    - Accept the default **Installation Path** or click **Browse** to select a different folder.

- Review the installation settings. You can change settings by clicking **Back** until the relevant screen appears. When you are satisfied with the settings, click **Install** to begin the installation.

8. The **Installation Progress** page appears.

   - The Wizard begins installing Autodesk® Simulation CFD.
   - A progress indicator shows how much of the installation has been completed.

9. The **Installation Complete** page appears.

   - The successfully installed products are listed, as are any products that failed to install.
   - Click **Finish** to close the Setup Wizard.

Notes:

- Before you can use Autodesk® Simulation CFD, the Network License Manager must be installed, and you must be able to access your network. If the Network License Manager was already installed for an earlier version of Autodesk Simulation CFD 2013, then no further action is required to install it for the service pack.
- You must have activated your licenses on the license server machine.
- To change the language of the installed version, open **SimCFDConfig**, located in the Autodesk Simulation CFD installation folder.

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Issues Addressed in this Service Pack

Results

- Temperature results reported in the ".sol" file are reported in Celsius instead of Kelvin for steady state heat conduction simulations run in SI units.
- The area of fluid-fluid interfaces (and in a specific case, the solid-solid interface) computed by the Wall Calculator is double the actual area.
- The resultant total heat to surface values computed from residuals for interior and exterior surfaces for steady state heat conduction analysis are higher than they should be.
- The function that maps CFD results to FEA loads fails.
- The heat flux reported by the Wall Calculator at a solid-solid interface for a specific conduction simulation is incorrect.
- It is not possible to export certain mesh or output files. An error message is issued, but the requested file is not saved.
- The surface temperature displayed on a Heat Exchanger Device after the simulation is complete incorrectly appears in Kelvin.
- Massed particle trace bounce data is not saved when the flag to enable it, write_trace_bounce_data, is enabled.

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CAD Connection

- The UGNX CAD connection now supports a direct launch in the same manner as Autodesk Simulation 2012.
- In SolidWorks 2012, CAD Connection Launchers are added in the "Office Products" tab as well as to the designated tabs. The result is duplicate launchers in the SolidWorks 2012 UI.
- On a Japanese OS, Japanese Parasolid part names are not transferred correctly into the CFD design study environment.
- Part names from Revit MEP 2013 on a French OS do not appear on the model after launching into Simulation CFD.
- Part Names are not transferred when an assembly is launched from SpaceClaim. All the parts come as "CAD Volume."
- After launching a model from Pro/E into CFD, the part or assembly can no longer be saved in Pro/Engineer. The Save object path is incorrect and it cannot be changed.
- A design that originated in Pro and launched through Granite is cloned. If the geometry in Pro/E is updated with parts substituted in the assembly from the original design, the cloned design in the CFD design study will not update when launched from Pro/E.
- Part names are not transferred into the CFD model correctly when a SolidWorks model contains a 3D body and a 2D shell is launched into CFD.
- For some Pro/E-based models launched through Granite, using Geometry tools causes part names to change and causes associativity errors between applied conditions and geometric entities.
- A crash occurs on some computers when loading a model unless the software_rendering flag is enabled. If your system was affected by this issue, you should disable the "use_dropshadow" flag with this service pack to ensure graphics stability.
- When a multiple configuration launch is used to update a design study, the cloned designs do not update based on the modified design geometry.

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Meshing

- Meshing fails for certain motion simulations that have contacting grouped parts and a specified initial position.
- The localized message dialog that appears when applying Automatic Mesh Sizing after having modified applied mesh sizes shows "??????" instead of the correct text.

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Materials

- When a CoCreate-based simulation containing a blower material and a surface part is continued, the solver exits unexpectedly and the simulation does not run.
- For certain materials, the vapor pressure displayed by the Material Editor is different from the value saved in the Material database.
- The displayed units of vapor pressure are incorrect when a material is saved in a custom database.
- A crash occurs on Unicode versions when a custom PCB material is saved to the "My Materials" material database.

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Boundary Conditions

- A crash occurs for a specific model containing several transient boundary conditions when an attempt is made to clone either the design or scenario or run the simulation.
- Slip/Symmetry boundary conditions that not aligned to a Cartesian axis behave as non-slip walls instead of slip conditions.
- A crash occurs for design studies that contain multiple designs when a pressure boundary condition is marked as a summary plane and results planes are created during the simulation.

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API

- A crash occurs when running a simulation using a Python script if the "solverComputer" parameter is not specified.
- It is not possible to change the 'continueFrom' Scenario property in a Python-based API script.

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Solver

- A crash occurs if the Thermal Comfort output quantity is enabled without also enabling the radiation solver.
- The memory footprint of the SimCFD executable grows substantially when switching between active scenarios. Also, the memory allocation increases when the UI is left open over a significant period of time.
- The first job submitted on a HPC cluster runs and finishes, but subsequent jobs in the queue do not start and remain in the queue. Such jobs do not appear in the HPC Cluster Manager Job Scheduler.
- A crash occurs before the first iteration completes when geometry tools are used to prepare the model for a Motion simulation.
- Flag settings that control Motion are not saved to the scenario when they are enabled.

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Documentation

- The "MaxRadMatrixSize" flag is missing from the flag manager, and there is no corresponding help topic that describes this flag.
- Several buttons on the Getting Started tab are linked to the legacy CFdesign Customer Portal. These have been modified to link to the Autodesk Simulation CFD WikiHelp site.
- The description of the DRSmoothing flag in the Flag Manager is incorrect. To disable smoothing, a value of -2 is required, not 2.

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Installation

- Deployment installation fails with the following error: "The system cannot find the specified path when copying files from the install kit."
- Deployment installation fails with the following error: "1: 5 2: adlmPITSetProductInformation failed: 3: 26". The installation rolls back and fails.

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Legal Notice

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Thank You

We thank all our customers who identify issues and report them to us. These reports give us the opportunity to improve the product and provide you with the best solution in simulation. We also thank you for your continued business and for the feedback regarding the content of this release.

Respectfully,

Autodesk Simulation CFD Team

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