



# SIMULIA Thermal Analysis PRPQ Version 5 Release 19 Modification Level 0

Thermal Analysis (ATH) extends the capability of GPS, allowing designers to understand the thermal behavior of their designs. The steady-state or transient temperature distribution can be calculated in response to direct heating of a surface, the flow of a fluid past a surface, or the specified temperature of the surface. The thermal material properties can be temperature dependent. When analyzing assemblies, the conductivity across the interface between contacting parts can be specified.

When ATH is used in conjunction with the SIMULIA - Nonlinear Structural Analysis product (ANL), a new class of analysis problems can be tackled. Nonlinear structural analysis can be performed including the effects of the temperature distribution calculated by ATH, which can cause parts to expand and contract and also affect their material properties.

## Product Highlights:

- Calculates the temperature distribution in a part or assembly.
- Determines the steady-state or transient thermal response.
- Material properties can be temperature dependent.
- Allows the conduction of heat between parts in an assembly.
- Enables thermal stress analysis when used in conjunction with ANL.

**Special Note:** This product is designed for use with CATIA Generative Part Structural Analysis. This CATIA product must be available for correct operation of SIMULIA - Thermal Analysis.

- Co-requisite products include: GAS, EST, FMS, FMD

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## Programming Requirements

SIMULIA V5 products run on selected levels of Windows®. This product is designed for use with CATIA Generative Part Structural Analysis (5691-GPS) or equivalent. This CATIA product must be available for correct operation of SIMULIA - Thermal Analysis product.

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### For V5R19:

**Software Requirements:** This product runs solely on Microsoft® Windows XP® Professional SP2, XP Professional x64 and Microsoft Windows Vista x86 and Vista x64. All other hardware and software details for this product are consistent with that for CATIA V5. Refer to your country-specific CATIA V5R19 announcement letter for details. For installation of V5R19, Service Pack 3 or higher is required.

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## Key Registration Information

SIMULIA - Thermal Analysis requires a LUM V4 Software license key. Keys must be ordered from the Dassault Systemes Key Center for your region.

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## Licensed Program Materials Availability

- Restricted materials - No. This licensed program is available without source licensed program materials. It is available in object code only.
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## Supplemental Terms

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### Type/Duration of Program Services (also referred to as "Support Services")

You will find all necessary information including processes, on Dassault Systemes web site :  
<http://www.3ds.com/terms/support-policies>

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### Designated Machine Identification

No.

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### Test Period

No.

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### Use-Based Charges/Usage Restrictions

Charges for this program are based on the number of users logged on at any time. The total number of users logged on may not exceed the number for which you have been authorized. If the total number exceeds your authorization, you must notify Dassault Systemes and obtain additional authorizations.

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