SIMULIA Nonlinear Structural Analysis PRPQ Version 5 Release 19 Modification Level 0

Nonlinear Structural Analysis (ANL) extends the capabilities of GPS to include more advanced analysis effects, such as large displacements and permanent material deformation. Material plasticity, typical of metals can be modeled, as well as the nonlinear elasticity in hyperelastic materials like rubber. ANL also provides more advanced contact capabilities, such as friction at contacting surfaces and the automatic detection of contact surfaces based on their proximity. When ANL is used in conjunction with SIMULIA - Thermal Analysis (ATH), 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:

- Includes the effects of large displacements and rotations.
- Enables the permanent deformation of materials to be modeled.
- Models the nonlinear elasticity of rubber and other hyperelastic materials.
- Multi-step analysis enables analysis of multiple sequential loadings.
- Provides advanced contact capabilities, such as friction at contacting surfaces.
- Automatically determines contact among parts through the automatic contact detection capability.
- Performs thermal stress analysis when used in conjunction with ATH.

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 - Nonlinear Structural Analysis.

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

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 - Nonlinear Structural Analysis product.

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.

Key Registration Information

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

Licensed Program Materials Availability

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

Supplemental Terms

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

Designated Machine Identification

No.

Test Period

No.

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