

# Simcenter 3D 2019.2 Series update

## **Welcome to Simcenter 3D**

February 2020

Dear Siemens Digital Industries Software Customer:

We are proud to introduce the latest Maintenance Software Fix Release, Simcenter 3D 2019.2 v1892.3201, of our product development solution. With this release, we continue to provide innovative ways to deliver solutions that meet the next generation of your product design, development, and simulation challenges. The new version of Simcenter 3D is robust and powerful, and it delivers advanced technologies for product design, development, and simulation in a single, multidisciplinary platform. It preserves best-in-class customer deployment readiness and builds on the productivity and stability achievements of the previous release.

Sincerely,

Your Simcenter 3D Release Team

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## NOTICES

### Simcenter 3D Automatic Update

Automatic updates will not be available for releases on Simcenter 3D 2019.2 Series after Simcenter 3D 2019.2-1892, including Simcenter 3D 2019.2-1892.3201. Users who are on Simcenter 3D 2019.2-1892 with automatic update option turned on will be notified to download and install the Simcenter 3D 2020.1 release. If any release on the Simcenter 3D 2019.2 Series is preferred, users must download the release from the Siemens Download Server.

## SIMCENTER 3D 2019.2-1892.3201

### 2019.2-1892.3201 FIXED PROBLEM REPORTS (PR)

Please see the table below for a summary of the PR updates included in this release.

<b>Application</b>	<b>Count of PR Number</b>
SYSENG	22
CAM	16
DRAFTING	10
KDA	8
NXMANAGER	7
ASSEMBLIES	5
TRANSLATOR	4
SHIP_DESIGN	4
DESIGN	4
TC_FEATURES	3
SIMCENTER	3
CORRUPTED_PARTS	2
ROUTING_GENERAL	2
SYSTEM	1
MECHATRONICS	1
<b>Total</b>	<b>92</b>

For a cumulative list of PR fixes, see Fixed\_Problem\_Reports.csv included with the release documents.

### 2019.2-1892.3201 ENHANCEMENTS (ER)

No Enhancements specific to Simcenter 3D is included in this Maintenance Software Fix Releases.

## SIMCENTER 3D 2019.2-1892.2940

### 2019.2-1892.2940 PROBLEM REPORTS (PR)

Please see the table below for the PR updates included in this release.

PR Number	Description	Application	Function	Sub_Function
9413878	Synchronize Assembly Arrangement flag: change FindNo in SM gives wrong position	NXMANAGER	ASSEMBLY	UPDATE_STRUCT

For a cumulative list of PR fixes, see Fixed\_Problem\_Reports.csv included with the release documents.

## SIMCENTER 3D 2019.2-1892.2920

### 2019.2-1892.2920 PROBLEM REPORTS (PR)

Please see the table below for the PR updates included in this release.

<b>PR Number</b>	<b>Description</b>	<b>Application</b>	<b>Function</b>	<b>Sub_Function</b>
9618423	Performance of Profile Sketches	SHIP_DESIGN	DRAWING_AUTO	INVRB_BEND_LINE
9622649	Section drawing to support sloped plates	SHIP_DESIGN	DRAFTING	SHIP_SECTN_DRWG
9626003	Profiles Sketches with same position numbers on same sheet	SHIP_DESIGN	DRAWING_AUTO	INVRB_BEND_LINE

For a cumulative list of PR fixes, see Fixed\_Problem\_Reports.csv included with the release documents.

## SIMCENTER 3D 2019.2-1892

### 2019.2-1892 PROBLEM REPORTS (PR)

Please see the table below for a summary of the PR updates included in this release.

<b>Application</b>	<b>Count of PR Number</b>
CAM	19
SIMCENTER	16
NXMANAGER	11
DRAFTING	9
TRANSLATOR	6
KDA	6
SYSENG	5
PMI	4
TC_FEATURES	3
CMM_INSPECTION	3
SHIP_DESIGN	2
NX_SHEET_METAL	2
PCB_EXCHANGE	1
MECHATRONICS	1
TECH_DATA_PKG	1
ASSEMBLIES	1
ROUTING_GENERAL	1
GATEWAY	1
<b>Total</b>	<b>92</b>

For a detailed list of PR fixes, see Fixed\_Problem\_Reports.csv included with the release documents.

### 2019.2-1892 ENHANCEMENTS (ER)

No Simcenter 3D ERs were fixed in this update. For NX ERs fixed in this update, please check the latest NX 1872 Series – Monthly Update.



## SIMCENTER 3D 2019.2-1888

### 2019.2-1888 PROBLEM REPORTS (PR)

Please see the table below for a summary of the PR updates included in this release.

<b>Application</b>	<b>Count of PR Number</b>
SYSTEM	22
SIMCENTER	11
ASSEMBLIES	10
CAM	10
SHIP_DESIGN	10
ROUTING_GENERAL	6
NX_SHEET_METAL	4
NXMANAGER	4
TRANSLATOR	4
GATEWAY	3
CMM	2
DRAFTING	2
TC_FEATURES	2
TRANSLATORS	2
AUTOMATN_DESIGN	1
DMU	1
KDA	1
MECHATRONICS	1
PMI	1
SYSENG	1
<b>Total</b>	<b>98</b>

For a detailed list of PR fixes, see Fixed\_Problem\_Reports.csv included with the release documents.

### 2019.2-1888 ENHANCEMENTS (ER)

No ERs were included in this update.

## SIMCENTER 3D 2019.2-1884

### 2019.2-1884 PROBLEM REPORTS (PR)

Please see the table below for a summary of the PR updates included in this release.

<b>Application</b>	<b>Count of PR Number</b>
SYSTEM	22
SIMCENTER	19
NASTRAN	16
CAM	7
KDA	5
TRANSLATOR	5
ASSEMBLIES	5
SYSENG	4
SHIP_DESIGN	3
FLEXIBLE_PIPE	2
NXMANAGER	2
DESIGN	2
DRAFTING	1
CMM_INSPECTION	1
MECHATRONICS	1
ADD_FIXED_PLANE	1
<b>Total</b>	<b>96</b>

For a detailed list of PR fixes, see Fixed\_Problem\_Reports.csv included with the release documents.

### 1884 ENHANCEMENTS (ER)

No ERs were included in this update.

## SIMCENTER 3D 2019.2-1880

### 2019.2-1880 PROBLEM REPORTS (PR)

Please see the table below for a summary of the PR updates included in this release.

<b>Applications</b>	<b>Count of PR Number</b>
ROUTING_MECH	1
ADD_FIXED_PLANE	2
DESIGN	2
TRANSLATOR	2
CMM_INSPECTION	3
KDA	3
SHIP_DESIGN	4
SYSTEM	4
SIMCENTER	11
CAM	15
<b>Total</b>	<b>47</b>

For a detailed list of PR fixes, see Fixed\_Problem\_Reports.csv included with the release documents.

### 2019.2-1880 ENHANCEMENTS (ER)

No ERs were included in this update.

## SIMCENTER 3D 2019.2-1876

### 2019.2-1876 PROBLEM REPORTS (PR)

Please see the table below for a summary of the PR updates included in this release.

<b>Application</b>	<b>Count of PR Number</b>
ASSEMBLIES	1
BETA_EAP	1
DESIGN	1
FLEX_PC_DESIGN	1
FLEXIBLE_PIPE	1
KDA	1
ROUTING_ELEC	1
SHIP_DESIGN	1
TC_FEATURES	1
TRANSLATOR	2
SIMCENTER	3
NXMANAGER	3
ROUTING_GENERAL	6
NX_SHEET_METAL	9
<b>Total</b>	<b>32</b>

For a detailed list of PR fixes, see Fixed\_Problem\_Reports.csv included with the release documents.

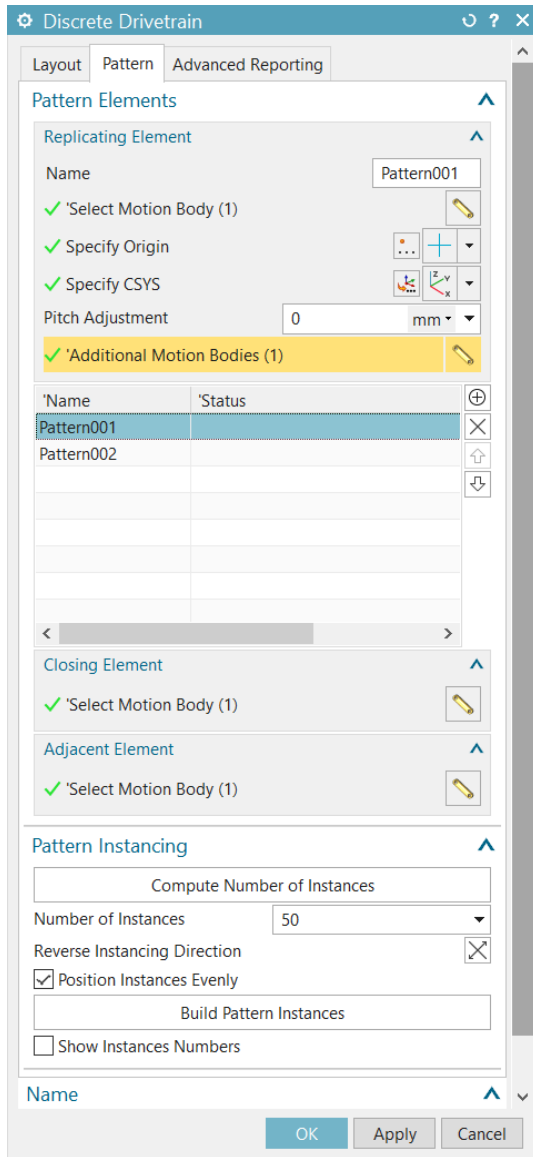
### 2019.2-1876 ENHANCEMENTS (ER)

Please see below for the enhancement included in this release.

# Discrete Drivetrain: Additional Motion Bodies

## Introduction

Pattern Elements now support the definition of Additional Motion Bodies.



## Additional Motion Bodies

The Motion Body selected in Select Motion Body is treated as the main Motion Body in this Pattern Element. Additional Motion Bodies in this list can be replicated and passively positioned as part of the Pattern Element along with the main Motion Body. These Additional Motion Bodies maintain their position and orientation relative to the main Motion Body in a pattern instance.

Additional Motion Bodies may be connected to the main Motion Body or to each other. Any Motion elements like joints, forces or constraints which connect them are also replicated when Build Pattern Instances is clicked.

NOTE: Additional Motion Bodies may NOT be connected to a neighboring Pattern Element's main Motion Body or additional Motion Bodies. Such connections are not replicated when Build Pattern Instances is clicked.

SIMCENTER 3D 2019.2 SERIES PRS WITH ISSUED SOFTWARE FIELD BULLETIN (SFB)

SFB	SFB Short Description	PR	PR Status	PR Fixed Version
<a href="#">SFB-Simcenter-8014358</a>	Erroneous conversion of complex data from amplitude-phase to real-imaginary format in Simcenter 3D Model and Load Pre-processing, if phase is expressed in degrees	9476699	Fixed	v1876
<a href="#">SFB-Simcenter-8014396</a>	Ply Sketcher Graphical Display Memory Issue	9505865	Fixed	v1876
<a href="#">SFB-Simcenter-8015486</a>	Serious Issue with "Compound Material" functionality	9538178	Fixed	v1888
<a href="#">SFB-Simcenter-8015607</a>	Potential Loss of Some Margin of Safety Log Files	8424682	Open	v1899
<a href="#">SFB-Simcenter-8015608</a>	Margin of Safety Panel Combined Methods with Shear May Fail Depending on the Aspect Ratio	8424703	Open	v1899
<a href="#">SFB-Simcenter-8015609</a>	Wrong Margin of Safety Value in Some Tensile Cases That Use Method Plate Buckling Curved Longitudinal Shear Combined	9552060	Open	v1899
<a href="#">SFB-Simcenter-8015799</a>	Serious Issue with Simulation Object option "Associate to Automatic Pair Recipe"	9562735	Fixed	v1888
<a href="#">SFB-Simcenter-8016007</a>	"Application Load Error" when switching into Simulation Pre/Post	8428374	Open	v1899
<a href="#">SFB-Simcenter-8016013</a>	Issue with Material Orientation on reflected solid elements	8427317	Open	v1899

## SIMCENTER NASTRAN 2019.2-1884

### SIMCENTER NASTRAN 2019.2-1884 PROBLEM REPORTS (PR)

Following list summarizes the issues that are fixed in 2019.2-1884.

PR Number	Short Description
9526603	When using SOL402, a performance issue that slowed down the analysis of the loads has been corrected
9545812	Contact model crashes in NXN1872 but solves in version NXN1847.
8562674	Bogus "insufficient memory" error issued for FRF + mode set model.
9541764	Simcenter Nastran was looking for both "sc_enabled" and "sc3d_desktop_presence" feature when trying to register Simcenter tokens and Flexxl Tokens. It should only look for "sc3d_desktop_presence". The code is modified to check presence on "sc3d_desktop_presence" feature only.
9537489	SOL401 failed for model specified bolt preload or initial strain or stress state and containing mass element
9507060	Data block Lama not created when secomb = yes
9523264	Memory overwrite in the TRLG module was resulting in the code being unable to find coordinate system defined for TLOAD3
8421556	For SOL402, PLOAD4 loads applied on quadratic shells (CQUAD8 or CTRIA6) were not correctly taken into account
8421516	When performing a restart analysis with SOL402, some types of results computed during the initial run were not available in the restart run
9516372	SOL402 deck with space in filename or path fails
9514043	Solver fatal message was generated when SOL 401 was attempting to recover temperatures (OTEMP request) for elements which don't have temperature data. These elements include CBUSH, CBUSH1d, CELAS, CELASNL, and fake BEAM/BAR units corresponding to RBAR/RBE2 when rigid=stiff is used.
9510890	DMAP error: attempt to output existing data block PVT01
9509989	Sparse data recovery crashes. Not sure why we care calling SPDR in SOL 108
9507554	Model with no 2D elements requested ERP results. Error message insufficient to describe problem.
8419800	SOL402 restart gives wrong results if the user changes the support of enforced displacements or single point constrains (SPCD) between the initial and the restart run
9508210	The acoustic power results may be wrong for ATV DMP analysis
8419054	When the contact datablock contains records that exceed in size (number of words) than the bufsize specified, then an access violation error occurs, resulting in a crash. This occurs when bolt of type 2 is selected in the model.
9502800	Element faces in transition region between wet and dry show wrong fluid pressures upon application of PLOADFP. This is only a pressure recovery issue.
8418969	In SOL 200 topology optimization, corrected convergence issues which occurred when defining the objective with DESOBJ (MIN, SCFUNC=MAX, ENFUNC=MAX) or DESOBJ (MAX, SCFUNC=MIN, ENFUNC=MIN) and there were more than 100 actual constraints in the job (such that SDO is selected as optimizer).
8418968	In SOL 200, when defining the objective with DESOBJ (MIN, SCFUNC=MAX, ENFUNC=MAX) or DESOBJ (MAX, SCFUNC=MIN, ENFUNC=MIN), corrected the objective value written into optimization CSV file.
9492104	Only 3 nodes in 3D element faces have the correct fluid penetration pressure output applied via PLOADFP. The fourth node shows zero. This is only a pressure recovery issue.



9487605	For SOL402, DTEMPEX card is ignored in a PRELOAD+STATIC+MODAL test
9487561	For SOL402, when the first subcase is MODES, DTEMP card is ignored
9485780	Sol401 Glue Sliding with GNL fails to converge
9475934	For SOL402, if DTEMP references both TEMP and TEMPD with the same ID, TEMPD is ignored for nodes without TEMP
9474437	For SOL402, if a MODES subcase is followed by a STATICS subcase for which NLCNTL2 TVAR=STEP, material parameters are not evaluated at the correct temperature for the MODES subcase
9472658	For SOL402, initial temperature not assigned to some nodes when TEMP(LOAD) references both TEMP and TEMPD cards
9472097	For SOL402, disabling contact regularization by setting BCTPAR2 STFR=0.0 does not work and leads to convergence problem
8416427	For SOL402, if the model contains only PRELOAD subcases, TEMP(INIT) is used instead of TEMP(LOAD), leading to wrong results
9464705	For SOL402, performing a restart analysis on a model with kinematic joints (PJOINT) and DRIVERS with enforced displacements does not work
9448606	For SOL 402, when DTEMPEX and TEMPD have the same ID, the computation fails due to an out-of-bounds array access
9535261	Having SPCD present in the same subcase as bolt preload in SOL101 is causing a fatal
9535262	When the type 2 bolt cutting plane is not perpendicular to the bolt axial direction, the correct preload effect is not seen
9516987	If ACPRESS is specified, the multiple subcases results are not correct after the first subcase.
9505508	Sol401 Contact Tangential contact stiffness based on fricmod=1 leads to smaller frequencies in modal solution
9502891	Improper group format causes access violation
9436218	Parabolic shell formulation changes cause numerical instability due to small K6ROT stiffness

**SIMCENTER NASTRAN 2019.2 SERIES PRS WITH ISSUED SOFTWARE FIELD BULLETIN (SFB)**

<b>SFB</b>	<b>SFB Short Description</b>	<b>PR</b>	<b>PR Status</b>	<b>PR Fixed Version</b>
<a href="#"><u>SFB-NX_NASTRAN-8014462</u></a>	Incorrect applied temperature for preload subcases in Simcenter Nastran SOL 402	8416427	Fixed	v1884
<a href="#"><u>SFB-NX_NASTRAN-8014566</u></a>	Incorrect temperature processing in Simcenter Nastran SOL 402	9472658, 9475934	Fixed	v1884
<a href="#"><u>SFB-NX_NASTRAN-8014567</u></a>	Temperature loads incorrectly applied in Simcenter Nastran SOL 402	9487561	Fixed	v1884
<a href="#"><u>SFB-NX_NASTRAN-8014380</u></a>	Incorrect fluid penetration pressure output for Simcenter Nastran SOL 401	9492104, 9502800	Fixed	v1884
<a href="#"><u>SFB-NX_NASTRAN-8014576</u></a>	Wrong orientation for 3D bolts in Simcenter Nastran SOL 101 and 401	9420636	Fixed	v1884
<a href="#"><u>SFB-NX_NASTRAN-8015735</u></a>	Incorrect results for thermal solutions with enclosed radiation heat transfer in Simcenter Nastran	9499966	Open	v1899
<a href="#"><u>SFB-NX_NASTRAN-8015737</u></a>	Incorrect results when using CGAP contact in Simcenter Nastran SOL 101	9525152	Fixed	v1888
<a href="#"><u>SFB-NX_NASTRAN-8015739</u></a>	Incorrect preloads with type-2 bolts in Simcenter Nastran SOL 101 and 401	9535262	Fixed	v1884
<a href="#"><u>SFB-NX_NASTRAN-8015740</u></a>	Incorrect preloads with type-2 bolts with large rotations in Simcenter Nastran SOL 401	9538185	Open	v1899
<a href="#"><u>SFB-NX_NASTRAN-8015993</u></a>	Incorrect results with Lagrange rigid elements using the iterative solver in Simcenter Nastran SOL 101	9429843	Open	v1899
<a href="#"><u>SFB-NX_NASTRAN-8015992</u></a>	Incorrect fluid pressure penetration loads on edges in Simcenter Nastran SOL 401	9586987	Open	v1899

<a href="#">SFB- NX_NASTRAN- 8015996</a>	Incorrect behavior with bolt loads in Simcenter Nastran SOL 401	9575108	Open	v1899
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## SIMCENTER CUSTOMER SUPPORT

### Installation assistance

For additional installation assistance, or to report any problems, contact the Simcenter Customer Support.

**Website:**

<http://support.industrysoftware.automation.siemens.com/gtac.shtml>