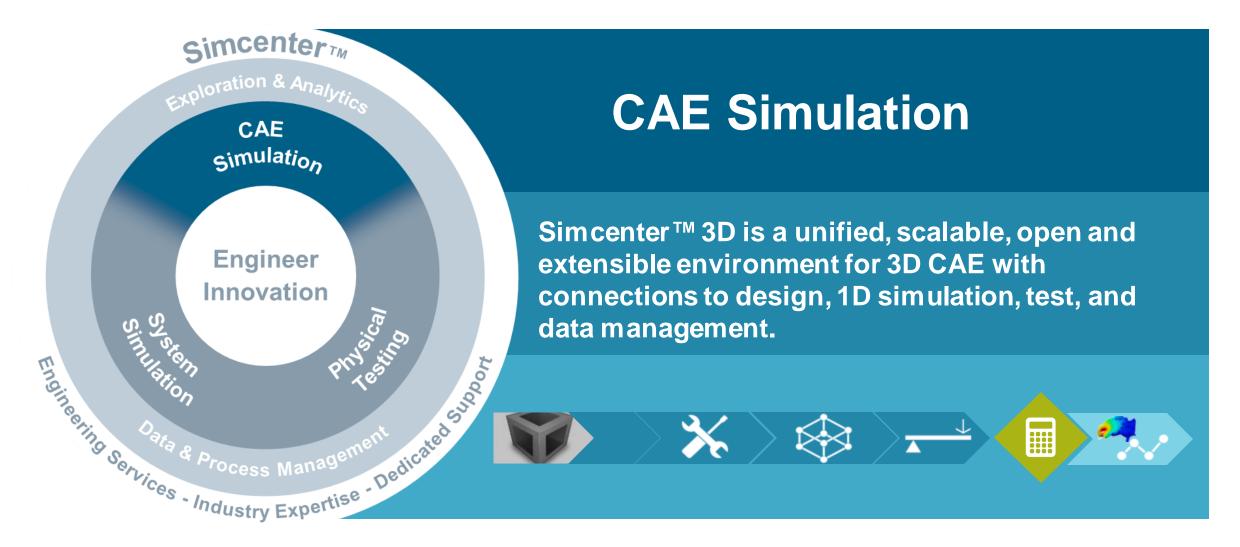


# Simcenter 3D Value-Based Licensing for Simcenter 2021.1



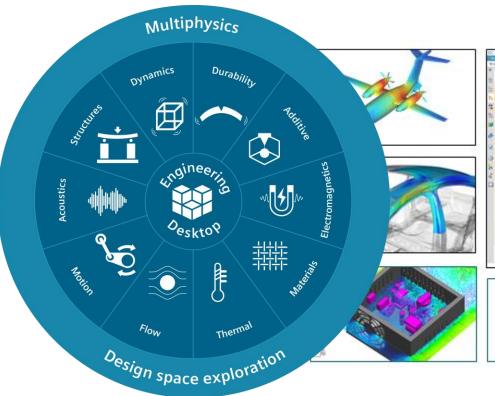
### Simcenter - Simulation and Test Solutions

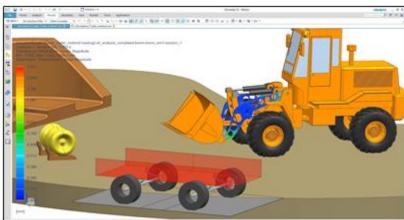


# Simcenter 3D Value Based Licensing – Motivation

Simcenter 3D provides multidiscipline solutions in a single common user environment.

Value-Based (or tokens)
licensing provides a costeffective way for users to
access the full range of
Simcenter 3D capabilities.





Benefit from a unified, scalable, open and extensible environment for 3D CAE



### What is Value Based Licensing?

Value Based Licensing (VBL) is an additional licensing method accessed through the token packs.

### Operates by the same Flex license server as used for module-based Simcenter 3D licenses

Users can have mix of token license and module-based licenses

#### Requires "Base Application" to enable the use of tokens.

- Tokens apply only for additional Product Modules configured on top of "Base Application" which is a module-based "Desktop" license (perpetual or lease/recurring)
- Base Application can be any of the following
  - SC12500 Simcenter Engineering Desktop
  - SC12510 Simcenter Engineering Desktop Add-On
  - SC13500 Simcenter Structures
  - SC13510 Simcenter Structures Add-On





### Why Value Based Licensing?

#### **Provides flexibility to customers**

- Allows access to various applications without having to buy specific products
- Accommodates changes in customer capability usage over time
- Customers can try-out new capabilities without having to purchase a license
- Cost efficient licensing model for customers that need access to variety of capabilities





### **How Value Based Licensing Works?**

Users always need to run Base Application that uses module-based licensing.

#### Additional Simcenter 3D applications can be run using:

- Module-based licensing or
- Value-Based (token) licensing

#### Licenses for additional Simcenter 3D applications are checked-out as follows:

- First a module-based license is checked-out if available. If not available ...
- Tokens are checked out. If not available ...
- License fault message

#### When tokens are used ...

- Each application consumes a defined number of tokens
- The same number of tokens are checked-in when application ends
- Total number of applications that can be checked out on top of the Base Application is limited by the number of tokens that the user has available.





### Simcenter 3D Products – Value Based Licensing Products

#### Simcenter 3D Valued Based Products ... started with Simcenter 11

### Value Based Licensing Packs SC10100 Simcenter Value Based License 100 Pack

- Contains 100 tokens
- Requires at least one Base Product

#### SC10050 Simcenter Value Based License 50 Pack

- Requires prerequisite of SC10100
- Contains 50 tokens

These products can be obtained on perpetual, subscription, or rental basis





### Token Enabled Products Most of Simcenter 3D and Simcenter Nastran

#### **Simcenter 3D Environments**

 MSC Nastran, Ansys, Abaqus, LS-Dyna, Samcef, Simcenter BEM, Simcenter Aerostructures

#### Simcenter 3D Thermal/Flow

Thermal, Flow, Advanced, DMP, SST, ESC

#### **Simcenter 3D Modeling Add-Ons**

Acoustic Meshing, Flow Modeling, Laminate Composites

#### Simcenter3D Solutions

BEM Acoustics, Durability, Response Dynamics, Correlation, Model Update

#### **Simcenter 3D Motion and Flexible Pipe**

Motion, Flexible Pipe

### **Simcenter 3D Materials Engineering**



Simcenter Nastran, Simcenter Samcef, Simcenter Multimech

Most Simcenter 3D and Simcenter Nastran products can use token licensing

88 Total Applications



### **Simcenter 3D Token Supported Applications**

Product ID	Product Name
Pre/Post	
SC30536	Simcenter 3D Environment for Simcenter Samcef
SC30523	Simcenter 3D Environment for LS-Dyna
SC30549	Simcenter 3D Environment for MSC Nastran
SC30550	Simcenter 3D Environment for Ansys
SC30551	Simcenter 3D Environment for ABAQUS
SC30570	Simcenter 3D BEM Acoustics Environment
SC30601	Simcenter 3D Aerostructure Environment
SC30522	Simcenter 3D Laminate Composites
SC30560	Simcenter 3D Advanced Fluid Modeling
SC30620	Simcenter 3D Meshing for Acoustics
SC30504	Simcenter 3D Rotor Modeling
SC30604	Simcenter 3D Environment for Ray Acoustics
Design Space I	Exploration
SC30610	Simcenter 3D Design Space Exploration
Additive Manu	ıfacturing
SC40110	Simcenter 3D AM Solver Add-On

Product ID	Product Name
Thermal/Flow	
SC30507	Simcenter 3D Thermal
SC30508	Simcenter 3D Flow
SC30515	Simcenter 3D Advanced Thermal
SC30516	Simcenter 3D Advanced Flow
SC30537	Simcenter 3D Thermal/Flow DMP
SC30517	Simcenter 3D Space Systems Thermal
SC30519	Simcenter 3D Electronic Systems Cooling
Acoustics	
SC30580	Simcenter 3D BEM Acoustics Solver
SC30593	Simcenter 3D ATV
SC30594	Simcenter 3D Acoustics HPC
SC30595	Simcenter 3D Aero-Vibro-Acoustics
Dynamics	
SC30521	Simcenter 3D Response Dynamics
SC30596	Simcenter 3D Noise & Vibration Modeling
SC30501	Simcenter 3D Load Identification
Correlation	
SC30527	Simcenter 3D FE Model Correlation
SC30528	Simcenter 3D FE Model Update
Durability	
SC30531	Simcenter 3D Advanced Durability
SC30532	Simcenter 3D Specialist Durability Modelling
SC30533	Simcenter 3D Specialist Durability for Connections
SC30540	Simcenter 3D Specialist Durability Solver
SC30541	Simcenter 3D Specialist Durability Composite Fatigue
Aerostructures	
SC30602	Simcenter 3D Margin of Safety

	· · · · · · · · · · · · · · · · · · ·
Nastran	
NXN001	Simcenter Nastran Basic
NXN002	Simcenter Nastran Advanced Bundle
NXN004	Simcenter Nastran Dynamic Response
NXN010	Simcenter Nastran DMP
	Simcenter Nastran Superelement
	Simcenter Nastran DMAP
	Simcenter Nastran Aero- Elastic
	Simcenter Nastran RDMODES
	Simcenter Nastran Reduced Representations
NXN015	Simcenter Nastran Advanced Acoustics
NXN016	Simcenter Nastran Topology Optimization
NXN030	Simcenter Nastran Multistep Nonlinear
NXN040	Simcenter Nastran Rotor
Samcef	
SCSCF0151	Simcenter Samcef Bacon
SCSCF0152	Simcenter Samcef Asef Solver
SCSCF0156	Simcenter Samcef Stabi Solver
SCSCF0154	Simcenter Samcef Dynam Solver
SCSCF0155	Simcenter Samcef Repdyn Solver
SCSCF0158	Simcenter Samcef Spectral Solver
SCMEC0181	Simcenter Samcef Mecano Non-Linear Mechanical Solver
SCMEC0191	Simcenter Samcef Mecano Thermal Solver
SCSCF1152	Simcenter Samcef Asef Parallel Solver
SCSCF1154	Simcenter Samcef Dynam Parallel Solver
SCSCF1156	Simcenter Samcef Stabi Parallel Solver
SCMEC1160	Simcenter Samcef Mecano Parallel Solver
SCMEC0111	Simcenter Samcef Mecano Supervisor

SC30572 SC30581 SC30582	Simcenter 3D Motion Modeling Simcenter 3D Motion Solver Simcenter 3D Motion Systems and Controls Simcenter 3D Motion Flexible Body
SC30572 SC30581 SC30582	Simcenter 3D Motion Solver Simcenter 3D Motion Systems and Controls Simcenter 3D Motion Flexible Body
SC30581 SC30582	Simcenter 3D Motion Systems and Controls Simcenter 3D Motion Flexible Body
SC30582	Simcenter 3D Motion Flexible Body
	•
SC30585	Simcenter 3D Motion Standard Tire
SC30590	Simcenter 3D Motion Drivetrain
SC30579	Simcenter 3D Motion TWR
SC30583	Simcenter 3D Motion Flexible Body Advanced
SC30599	Simcenter 3D Motion Driving Dynamics
SC30575	Simcenter 3D Motion C-code export
SC30574	Simcenter 3D Motion Real-Time Desktop Solver
Flexible Pipe	
SC40510	Simcenter 3D Flexible Pipe Standard Beam
SC40570	Simcenter 3D Flexible Pipe Standard Shell
SC40500	Simcenter 3D Flexible Pipe Standard Beam + Shell
SC40520	Simcenter 3D Flexible Pipe Linear Dynamic
SC40530	Simcenter 3D Flexible Pipe Non-Linear Dynamic
SC40540	Simcenter 3D Flexible Pipe Optimization
SC40550	Simcenter 3D Flexible Pipe Advanced Beam
SC40580	Simcenter 3D Flexible Pipe EC&WH Option
SC40590	Simcenter 3D Flexible Pipe Simulation for EC&WH
<b>Materials Engine</b>	ering
SC40200	Simcenter 3D Materials Engineering Standard
SC40201	Simcenter 3D Materials Engineering Advanced
	Multimech
	Multimech HPC Add-on
	Multimech for Ansys
MLM1003	Multimech for Abaqus



# **Customer Usage Example Scenario: Medium # Users, Many Applications**

#### Aerospace Customer

- Has 12 licenses of <u>Simcenter</u>
   <u>Engineering Desktop</u> or <u>Simcenter</u>
- Has varying need for add-ons

Each may have the the need to run Simcenter 3D Add-on Products

- Thermal
- Flow
- Space System Thermal
- Electronic Systems Cooling
- Response Simulation
- Laminate Composites
- Adv Fluid Modeling

Are tokens or individual licenses more cost effective?

Cu	stomer Usage - for a typical week	Monday	Tuesday	Wednesday	Thursday-Friday	Total #	Total #
ID	Product Name	# Licenses	# Licenses	# Licenses	# Licenses	Licenses Needed	Tokens Needed
SC30507	Simcenter Thermal	8	3	0	4	8	
SC30508	Simcenter Flow	4	3	0	2	4	
SC30515	Simcenter Advanced Thermal	0	0	0	4	4	
SC30516	Simcenter Advanced Flow	0	0	0	2	2	
SC30517	Simcenter Space Systems Thermal	0	1	0	0	1	
SC30519	Simcenter Electronic Systems Cooling	0	1	0	0	1	
SC30521	Simcenter Response Dynamics	0	0	5	0	5	
SC30522	Simcenter Laminate Composites	0	0	5	0	5	
SC30560	Simcenter Advanced Fluid Modeling	0	2	0	0	2	
						32	500

Cost Ratio Tokens/Modules=

9 Applications used throughout the week

Module-based Licensing

• 32 separate licenses would be required

Value-Based Licensing

• 500 tokens would cover usage

Almost 60% Cost Savings using Value Based Licensing



**Analysis:** 

## **Customer Usage Example Scenario: Medium # Users, Few Applications**

#### Aerospace Customer

 Has 12 licenses of Simcenter Engineering Desktop

Each may have the the need to run Simcenter Nastran Products

- Simcenter Nastran Basic
- Simcenter Nastran Dynamic Response

Are tokens or individual licenses more cost effective?

Customer Usage - for a typical week		Monday	Tuesday	Wednesday	Thursday-Friday	Total #	Total #
ID	Product Name	# Licenses	# Licenses	# Licenses	# Licenses	Licenses Needed	Tokens Needed
NXN001	Simcenter Nastran Basic	8	6	10	9	10	
NXN004	Simcenter Nastran Dynamic Response	2	3	6	2	6	
						16	1300

Cost Ratio Tokens/Modules= 159%

#### **Analysis:**

2 Applications used throughout the week

Module-based Licensing

• 16 separate licenses would be required

Value-Based Licensing

• 1300 tokens would cover usage

Module-based Licensing is 60% more cost effective



### How to Estimate Number the Number of Tokens You Need

#### **Process:**

- 1. Estimate your peak usage requirements number of products that may be in use at one time
- 2. Provide this information to the Siemens Digital Industries Account Manager
- 3. They can work up an analysis like in previous slides and tell you whether token licensing is a good fit for your company
- 4. Don't forget to consider what your future requirements may be

#### **Typical Usage Cases:**

Next slides show how many tokens are needed to run typical combinations of products

More complicated usages requires analysis described above



### Token Scenarios How to understand the tables

#### Example Token Amounts are labeled at the top for columns

Individual products or combination of products make up the rows

White shading in the token column means that the product has not been considered with the combination of products

Green shading in the token column means that the product or combination of products can be run using the number of tokens for that column

shading in the token column means that the product or combination of products cannot be run using the number of tokens for that column

			Token Amount					
Product ID	Product Name	Add	100	150	200			
Individual								
SC30508	Simcenter Flow							
SC30519	Simcenter Electronic Systems Cooling							
<b>Advanced Flo</b>	dvanced Flow Combination							
SC30508	Simcenter Flow with							
SC30560	Simcenter Advanced Fluid Modeling	n						
SC30516	Simcenter Advanced Flow	у						
SC30537	Simcenter Thermal/Flow DMP	n						
<b>ESC Combinat</b>	tion							
SC30519	Simcenter Electronic Systems Cooling with		_					
SC30560	Simcenter Advanced Fluid Modeling	у	_					
SC30537	Simcenter Thermal/Flow DMP	n						

#### For example:

- SC30519 needs at least 150 tokens to run
- SC30508 + SC305016 can be run with 100 tokens
- SC30519 + SC306560 needs at least 150 tokens to run





### Token Scenarios More Product Combinations

There are many possible capability combinations with tokens. The next slides lists typical combinations and the needed amount of tokens.

Your Account Manager can run this Token Calculator to explore other combinations of products

For more combinations use the Token Calculator





### Token Scenarios Simcenter 3D Pre-Processing

						Token /	Amount			
Product ID	Product Name	Add	50	100	150	200	250	300	350	400
Individual										
SC30536	Simcenter 3D Environment for Samcef									
SC30549	Simcenter 3D Environment for MSC Nastran									
SC30550	Simcenter 3D Environment for Ansys									
SC30551	Simcenter 3D Environment for ABAQUS									
SC30523	Simcenter 3D Environment for LS-Dyna									
SC30570	Simcenter 3D BEM Acoustics Environment									
SC30601	Simcenter 3D Aerostructure Environment									
SC30504	Simcenter 3D Rotor Modeling									
SC30604	Simcenter 3D Environment for Ray Acoustics									
SC30522	Simcenter 3D Laminate Composites									
SC30560	Simcenter 3D Advanced Fluid Modeling									
SC30620	Simcenter 3D Meshing for Acoustics									





### Token Scenarios Simcenter Thermal

						Token /	Amount			
Product ID	Product Name	Add	50	100	150	200	250	300	350	400
Individual										
SC30507	Simcenter 3D Thermal									
SC30517	Simcenter 3D Space Systems Thermal			_						
<b>Advanced The</b>	rmal Combination									
SC30507	Simcenter 3D Thermal with		1							
SC30515	Simcenter 3D Advanced Thermal	у								
SC30537	Simcenter 3D Thermal/Flow DMP	n								
SST Combinati	on									
SC30517	Simcenter 3D Space Systems Thermal with			_						
SC30537	Simcenter 3D Thermal/Flow DMP	n								
<b>Advanced The</b>	rmal Combination									
SC30507	Simcenter 3D Thermal with			_						
SC30515	Simcenter 3D Advanced Thermal	у	-	_						
SC30537	Simcenter 3D Thermal/Flow DMP	у	-	_						
SST Combination										
SC30517	Simcenter 3D Space Systems Thermal with			_	_					
SC30537	Simcenter 3D Thermal/Flow DMP	у	-	_	_					





### Token Scenarios Simcenter Flow

						Token	Amount			
Product ID	Product Name	Add	50	100	150	200	250	300	350	400
Individual										
SC30508	Simcenter 3D Flow									
SC30519	Simcenter 3D Electronic Systems Cooling		_	_						
Advanced Flo	w Combination									
SC30508	Simcenter 3D Flow with		_							
SC30560	Simcenter 3D Advanced Fluid Modeling	n								
SC30516	Simcenter 3D Advanced Flow	у	_							
SC30537	Simcenter 3D Thermal/Flow DMP	n								
<b>ESC Combinat</b>	tion									
SC30519	Simcenter 3D Electronic Systems Cooling with		_	_						
SC30560	Simcenter 3D Advanced Fluid Modeling	у	_	_						
SC30537	Simcenter 3D Thermal/Flow DMP	n								
Advanced Flo	w Combination									
SC30508	Simcenter 3D Flow with		_	_	_					
SC30560	Simcenter 3D Advanced Fluid Modeling	у	_	_	_					
SC30516	Simcenter 3D Advanced Flow	у	_	_	_					
SC30537	Simcenter 3D Thermal/Flow DMP	у	_	_	_					
ESC Combinat	tion									
SC30519	Simcenter 3D Electronic Systems Cooling with		_	_	_					
SC30560	Simcenter 3D Advanced Fluid Modeling	у	_	_	_					
SC30537	Simcenter 3D Thermal/Flow DMP	у	_	_	_					





### Token Scenarios Simcenter Thermal/Flow

			Token Amount								
Product ID	Product Name	Add	50	100	150	200	250	300	350	400	
Individual											
SC30507	Simcenter 3D Thermal										
SC30508	Simcenter 3D Flow										
Thermal/Flov	v Coupled Combination										
SC30507	Simcenter 3D Thermal and		_								
SC30508	Simcenter 3D Flow with		_								
SC30515	Simcenter 3D Advanced Thermal	n									
SC30516	Simcenter 3D Advanced Flow	n									
SC30560	Simcenter 3D Advanced Fluid Modeling	n									
SC30537	Simcenter 3D Thermal/Flow DMP	n									
Thermal/Flov	v Coupled Combination										
SC30507	Simcenter 3D Thermal and		_	_	_						
SC30508	Simcenter 3D Flow with		_	-	1						
SC30515	Simcenter 3D Advanced Thermal	у	_	_	1						
SC30516	Simcenter 3D Advanced Flow	у	_	_	_						
SC30560	Simcenter 3D Advanced Fluid Modeling	n									
SC30537	Simcenter 3D Thermal/Flow DMP	n									





### Token Scenarios Simcenter Structures with Simcenter Nastran Add-Ons

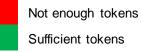
						Token /	Amount			
Product ID	Product Name	Add	50	100	150	200	250	300	350	400
Individual										
SC13500	Simcenter 3D Structures (no tokens)									
<b>Dynamics Con</b>	nbination									
SC13500	Simcenter 3D Structures and									
NXN004	Simcenter Nastran Dynamic Response with									
	Simcenter Nastran Superelement	n								
	Simcenter Nastran DMAP	n								
NXN010	Simcenter Nastran DMP	n								
	Simcenter Nastran RDMODES	n								
	Simcenter Nastran Reduced Representations	n								
SC30593	Simcenter 3D Noise & Vibration Modeling	n								
<b>Acoustics Com</b>	nbination									
SC13500	Simcenter 3D Structures and		_	_						
NXN004	Simcenter Nastran Dynamic Response with		_	_						
NXN015	Simcenter Nastran Advanced Acoustics with		_	_						
	Simcenter Nastran Superelement	n								
	Simcenter Nastran DMAP	n								
NXN010	Simcenter Nastran DMP	n								
SC30593	Simcenter 3D ATV	n								
	Simcenter Nastran RDMODES	n								
SC30595	Simcenter 3D 3D Aero-Vibro-Acoustics	n								
SC30596	Simcenter 3D Noise & Vibration Modeling	у	_	-						





### Token Scenarios Simcenter Structures with Simcenter Nastran Add-Ons (more combinations)

			Add 50 100 150 200 250 300 350 4								
Product ID	Product Name	Add	50	100	150	200	250	300	350	400	
Individual											
SC13500	Simcenter 3D Structures (no tokens)										
Aero-Elastic C	ombination										
SC13500	Simcenter 3D Structures and										
	Simcenter Nastran Aero- Elastic with										
	Simcenter Nastran Superelement	n									
	Simcenter Nastran DMAP	n									
NXN010	Simcenter Nastran DMP	n									
Optimization	Combination										
SC13500	Simcenter 3D Structures and										
NXN016	Simcenter Nastran Topology Optimization										
Non-Linear Co	pmbination										
SC13500	Simcenter 3D Structures and		-								
NXN030	Simcenter Nastran Multistep Nonlinear with		-								
NXN010	Simcenter Nastran DMP	n									
<b>Rotor Dynami</b>	cs Combination										
SC13500	Simcenter 3D Structures and		-	-							
SC30504	Simcenter 3D Rotor Modeling and		-	-							
NXN040	Simcenter Nastran Rotor with		-	-							
NXN010	Simcenter Nastran DMP	n									
Load Identific	ation Combination										
SC13500	Simcenter 3D Structures and										
SC30501	Simcenter 3D Load Identification										





### Token Scenarios Simcenter Nastran Enterprise

							Token /	Amount				
Product ID	Product Name	Add	50	100	150	200	250	300	350	400	450	500
Individual												
NXN001	Simcenter Nastran Basic		_	_								
<b>Dynamics Cor</b>	mbination											
NXN001	Simcenter Nastran Basic and		_	_								
NXN004	Simcenter Nastran Dynamic Response with		_	_								
	Simcenter Nastran Superelement	n										
	Simcenter Nastran DMAP	n										
NXN010	Simcenter Nastran DMP	n										
	Simcenter Nastran RDMODES	n										
	Simcenter Nastran Reduced Representations	n										
SC30596	Simcenter 3D Noise & Vibration Modeling	n										
<b>Acoustics Cor</b>	nbination											
NXN001	Simcenter Nastran Basic and		_	_	_							
NXN004	Simcenter Nastran Dynamic Response and		_	_	_							
NXN015	Simcenter Nastran Advanced Acoustics with		_	_	_							
	Simcenter Nastran Superelement	n										
	Simcenter Nastran DMAP	n										
NXN010	Simcenter Nastran DMP	n										
SC30593	Simcenter 3D ATV	n										
	Simcenter Nastran RDMODES	n										
SC30595	Simcenter 3D Aero-Vibro-Acoustics	n										
SC30596	Simcenter 3D Noise & Vibration Modeling	n										



### Token Scenarios Simcenter Nastran Enterprise (more combinations)

							Token /	Amount				
Product ID	Product Name	Add	50	100	150	200	250	300	350	400	450	500
Individual												
NXN001	Simcenter Nastran Basic		_	_								
Aero-Elastic C	ombination											
NXN001	Simcenter Nastran Basic and		_	_								
	Simcenter Nastran Aero- Elastic with		_	_								
	Simcenter Nastran Superelement	n										
	Simcenter Nastran DMAP	n										
NXN010	Simcenter Nastran DMP	n										
Optimization	Combination											
NXN001	Simcenter Nastran Basic and		_	_								
NXN016	Simcenter Nastran Topology Optimization		_	_								
Non-Linear Co	ombination											
NXN001	Simcenter Nastran Basic and		_	_	_							
NXN030	Simcenter Nastran Multistep Nonlinear with		_	_	_							
NXN010	Simcenter Nastran DMP	n										
<b>Rotor Dynami</b>	cs Combination											
NXN001	Simcenter Nastran Basic and		_	_	_							
NXN040	Simcenter Nastran Rotor (SOL414) with		_	_	_							
NXN010	Simcenter Nastran DMP	n										
SC30504	Simcenter 3D Rotor Modeling	n										



### Token Scenarios Simcenter Nastran for NVH

						Token /	Amount			
Product ID	Product Name	Add	50	100	150	200	250	300	350	400
Simcenter Na	stran Hybrid NVH Enterprise Combination									
NXN001	Simcenter Nastran Basic and		_	_	_	-				
NXN004	Simcenter Nastran Dynamic Response and		_	_	_	-				
SC30596	Simcenter 3D Noise & Vibration Modeling with		_	_	_	-				
	Simcenter Nastran Superelement	n								
	Simcenter Nastran DMAP	n								
NXN010	Simcenter Nastran DMP	n								
	Simcenter Nastran RDMODES	у	_	_	_	-				
	Simcenter Nastran Reduced Representations	у	_	_	_	-				
Simcenter Na	stran Hybrid NVH Desktop Combination									
SC13500	Simcenter 3D Structures and		_	_						
NXN004	Simcenter Nastran Dynamic Response and		_	_						
SC30596	Simcenter 3D Noise & Vibration Modeling with		_	_						
	Simcenter Nastran Superelement	n								
	Simcenter Nastran DMAP	n								
NXN010	Simcenter Nastran DMP	n								
	Simcenter Nastran RDMODES	n								
	Simcenter Nastran Reduced Representations	у	_	-						





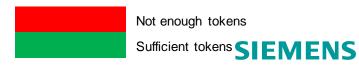
### Token Scenarios Simcenter Acoustics (BEM)

							Token /	Amount				
Product ID	Product Name	Add	50	100	150	200	250	300	350	400	450	500
Simcenter 3D	BEM Individual Products											
SC30570	Simcenter 3D BEM Acoustics Environment											
SC30620	Simcenter 3D Meshing for Acoustics											
SC30580	Simcenter 3D BEM Acoustics Solver		_									
SC30594	Simcenter 3D Acoustics HPC		_									
SC30604	Simcenter 3D Environment for Ray Acoustics											
Simcenter 3D	BEM Acoustics Combination											
SC30570	Simcenter 3D BEM Acoustics Environment and		_	_								
SC30580	Simcenter 3D BEM Acoustics Solver with		_	_								
SC30620	Simcenter 3D Meshing for Acoustics	n										
SC30594	Simcenter 3D Acoustics HPC	n										
SC30596	Simcenter 3D Noise & Vibration Modeling	n										
SC30593	Simcenter 3D ATV	n										
Simcenter 3D	BEM Acoustics Combination											
SC30570	Simcenter 3D BEM Acoustics Environment and		_	_	_	_	_	_				
SC30580	Simcenter 3D BEM Acoustics Solver with		_	_	_	_	_	_				
SC30620	Simcenter 3D Meshing for Acoustics	у	_	_	_	_	_	_				
SC30594	Simcenter 3D Acoustics HPC	у	_	_	_	_	_	_				
SC30596	Simcenter 3D Noise & Vibration Modeling	у	_	_	_	_	_	_				
SC30593	Simcenter 3D ATV	у	_	-	-	-	-	-				



### Token Scenarios Simcenter Acoustics (FEM)

							Token A	Amount				
Product ID	Product Name	Add	50	100	150	200	250	300	350	400	450	500
Nastran FEM /	Acoustics Enterprise Combination											
NXN001	Simcenter Nastran Basic and		_	_	_	_	_	_				
NXN004	Simcenter Nastran Dynamic Response with		_	_	_	_	_	_				
NXN015	Simcenter Nastran Advanced Acoustics	у	_	-	-	-	_	-				
SC30594	Simcenter 3D Acoustics HPC	у	_	-	_	_	_	_				
SC30593	Simcenter 3D ATV	у	_	_	-	-	-	_				
SC30595	Simcenter 3D Aero-Vibro-Acoustics	у	_	_	-	_	_	_				
	Simcenter Nastran RDMODES	у	-	-	-	-	-	-				
	Simcenter Nastran Superelement	n										
	Simcenter Nastran Reduced Representations	n										
	Simcenter Nastran DMAP	n										
Nastran FEM /	Acoustics Desktop Combination											
SC13500	Simcenter 3D Structures and		_	_	_	_	_					
SC30596	Simcenter 3D Noise & Vibration Modeling and		_	-	-	-	-					
NXN004	Simcenter Nastran Dynamic Response with		_	-	-	-	_					
NXN015	Simcenter Nastran Advanced Acoustics	у	_	-	-	-	_					
SC30620	Simcenter 3D Meshing for Acoustics	у	_	-	-	-	_					
SC30594	Simcenter 3D Acoustics HPC	у	_	-	_	_	_					
SC30593	Simcenter 3D ATV	у	_	-	-	_	_					
SC30595	Simcenter 3D Aero-Vibro-Acoustics	у	_	-		_	_					
	Simcenter Nastran RDMODES	n										
	Simcenter Nastran Superelement	n										
	Simcenter Nastran Reduced Representations	n										
	Simcenter Nastran DMAP	n										



### Token Scenarios Samcef Linear

						Token /	Amount			
Product ID	Product Name	Add	50	100	150	200	250	300	350	400
Individual										
SC30536	Simcenter 3D Environment for Samcef									
SCSCF0151	Simcenter Samcef Bacon									
Linear Statics	Combination									
SC30536	Simcenter Environment for Samcef and		_							
SCSCF-0152	Asef Solver with		_							
SCSCF-1152	Asef Parallel Solver	n								
Linear Bucklin	g Combination									
SC30536	Simcenter Environment for Samcef and		_							
SCSCF-0156	Stabi Solver with		_							
SCSCF-1156	Stabi Parallel Solver	n								
Linear Modal	Combination									
SC30536	Simcenter Environment for Samcef and		_							
SCSCF-0154	Dynam Solver with		_							
SCSCF-1154	Dynam Parallel Solver	n								
Linear Dynami	c Response Combination									
SC30536	Simcenter Environment for Samcef and		_							
SCSCF-0155	Repdyn Solver		_							
Linear Randon	n Response Combination									
SC30536	Simcenter Environment for Samcef and		_							
SCSCF-0158	Spectral Solver		-							





### Token Scenarios Samcef Non-Linear

						Token /	Amount			
Product ID	Product Name	Add	50	100	150	200	250	300	350	400
Individual										
SC30536	Simcenter 3D Environment for Samcef									
SCSCF0151	Simcenter Samcef Bacon									
Nonlinear Co	nbination									
SC30536	Simcenter 3D Environment for Samcef and		_	_						
SCMEC0181	Simcenter Samcef Mecano Non-Linear Mechanical Solver	with	_	_						
SCMEC1160	Simcenter Samcef Mecano Parallel Solver	n								
Thermal Com	bination									
SC30536	Simcenter 3D Environment for Samcef and		_	_						
SCMEC0191	Simcenter Samcef Mecano Thermal Solver with		_	_						
SCMEC1160	Simcenter Samcef Mecano Parallel Solver	n								
Thermal/Med	hanical Combination									
SC30536	Simcenter 3D Environment for Samcef and		_	_	_	_				
SCMEC0181	Simcenter Samcef Mecano Non-Linear Mechanical Solver	and	_	_	_					
SCMEC0191	Simcenter Samcef Mecano Thermal Solver and		_	_	_	_				
SCMEC0111	Simcenter Samcef Mecano Supervisor with		_	_	_	_				
SCMEC1160	Simcenter Samcef Mecano Parallel Solver	n								





### Token Scenarios Simcenter Motion

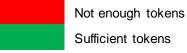
							Token /	Amount				
Product ID	Product Name	Add	50	100	150	200	250	300	350	400	450	500
Individual												
SC30571	Simcenter 3D Motion Modeling											
<b>Motion Soluti</b>	on Combination											
SC30571	Simcenter 3D Motion Modeling and		_	_								
SC30572	Simcenter 3D Motion Solver with		_	-								
SC30581	Simcenter 3D Motion Systems and Controls	n										
SC30579	Simcenter 3D Motion TWR	n										
SC30582	Simcenter 3D Motion Flexible Body	у	_	_								
SC30583	Simcenter 3D Motion Flexible Body Adv	у	-	-								
SC30585	Simcenter 3D Motion Standard Tire	n										
SC30590	Simcenter 3D Motion Drivetrain	n										
SC30575	Simcenter 3D Motion C-code export	n										
SC30574	Simcenter 3D Motion Real-Time Desktop Solver	n										
SC30599	Simcenter 3D Motion Driving Dynamics	n										
<b>Motion Soluti</b>	on Combination											
SC30571	Simcenter 3D Motion Modeling and		_	_	1							
SC30572	Simcenter 3D Motion Solver with		_	_	1							
SC30581	Simcenter 3D Motion Systems and Controls	у	_	_								
SC30579	Simcenter 3D Motion TWR	n										
SC30582	Simcenter 3D Motion Flexible Body	n										
SC30583	Simcenter 3D Motion Flexible Body Adv	n										
SC30585	Simcenter 3D Motion Standard Tire	у	_	_	-							
SC30590	Simcenter 3D Motion Drivetrain	n										
SC30575	Simcenter 3D Motion C-code export	n										
SC30574	Simcenter 3D Motion Real-Time Desktop Solver	n										
SC30599	Simcenter 3D Motion Driving Dynamics	у	_	_	1							

Not enough tokens
Sufficient tokens



### Token Scenarios Simcenter Motion (more combinations)

							Token /	Amount				
Product ID	Product Name	Add	50	100	150	200	250	300	350	400	450	500
Individual												
SC30571	Simcenter 3D Motion Modeling											
<b>Motion Soluti</b>	on Combination											
SC30571	Simcenter 3D Motion Modeling and		_	_	_	_						
SC30572	Simcenter 3D Motion Solver with		_	_	_	_						
SC30581	Simcenter 3D Motion Systems and Controls	у	_	_	_	_						
SC30579	Simcenter 3D Motion TWR	у	_	_	_	_						
SC30582	Simcenter 3D Motion Flexible Body	n										
SC30583	Simcenter 3D Motion Flexible Body Adv	n										
SC30585	Simcenter 3D Motion Standard Tire	n										
SC30590	Simcenter 3D Motion Drivetrain	у	_	_	_	_						
SC30575	Simcenter 3D Motion C-code export	n										
SC30574	Simcenter 3D Motion Real-Time Desktop Solver	n										
SC30599	Simcenter 3D Motion Driving Dynamics	n										
<b>Motion Soluti</b>	on Combination											
SC30571	Simcenter 3D Motion Modeling and		_	_								
SC30572	Simcenter 3D Motion Solver with		_	_								
SC30581	Simcenter 3D Motion Systems and Controls	n										
SC30579	Simcenter 3D Motion TWR	n										
SC30582	Simcenter 3D Motion Flexible Body	n										
SC30583	Simcenter 3D Motion Flexible Body Adv	n										
SC30585	Simcenter 3D Motion Standard Tire	n										
SC30590	Simcenter 3D Motion Drivetrain	n										
SC30575	Simcenter 3D Motion C-code export	n										
SC30574	Simcenter 3D Motion Real-Time Desktop Solver	у	_	_								
SC30599	Simcenter 3D Motion Driving Dynamics	n										





### Token Scenarios Simcenter Flexible Pipe

						Token A	Amount			
Product ID	Product Name	Add	50	100	150	200	250	300	350	400
Individual										
SC40510	Simcenter 3D Flexible Pipe Standard Beam		_							
SC40570	Simcenter 3D Flexible Pipe Standard Shell		_							
SC40500	Simcenter 3D Flexible Pipe Standard Beam + Shell		_							
SC40550	Simcenter 3D Flexible Pipe Advanced Beam		_							
SC40590	Simcenter 3D Flexible Pipe Simulation for EC&WH		_	_						
Simcenter 3D F	lexible Beam with Options Combination									
SC40510	Simcenter 3D Flexible Pipe Standard Beam with		_							
SC40520	Simcenter 3D Flexible Pipe Linear Dynamic	у	_							
SC40530	Simcenter 3D Flexible Pipe Non-Linear Dynamic	n								
SC40540	Simcenter 3D Flexible Pipe Optimization	n								
SC40580	Simcenter 3D Flexible Pipe EC&WH Option	n								
Simcenter 3D F	lexible Shell with Options Combination									
SC40570	Simcenter 3D Flexible Pipe Standard Shell with		_							
SC40520	Simcenter 3D Flexible Pipe Linear Dynamic	у	_							
SC40530	Simcenter 3D Flexible Pipe Non-Linear Dynamic	у	_							
SC40540	Simcenter 3D Flexible Pipe Optimization	n								
SC40580	Simcenter 3D Flexible Pipe EC&WH Option	n								
Simcenter 3D F	lexible Beam and Shell with Options Combination									
SC40500	Simcenter 3D Flexible Pipe Standard Beam + Shell with		_	-						
SC40520	Simcenter 3D Flexible Pipe Linear Dynamic	у	_	-						
SC40530	Simcenter 3D Flexible Pipe Non-Linear Dynamic	у	_	-						
SC40540	Simcenter 3D Flexible Pipe Optimization	n								
SC40580	Simcenter 3D Flexible Pipe EC&WH Option	n								
Simcenter 3D	Flexible Pipe Simulation for EC&WH with Options Combin	ation								
SC40590	Simcenter 3D Flexible Pipe Simulation for EC&WH with		_	_	_					
SC40520	Simcenter 3D Flexible Pipe Linear Dynamic	у	_	_						
SC40530	Simcenter 3D Flexible Pipe Non-Linear Dynamic	у	-	-	_					





### Token Scenarios Simcenter Response Dynamics and Model Correlation

						Token /	Amount			
Product ID	Product Name	Add	50	100	150	200	250	300	350	400
Response Dyna	amics with Simcenter 3D Structures Combination									
SC13500	Simcenter 3D Structures (no tokens) and									
SC30521	Simcenter 3D Response Dynamics									
Correlation wit	th Simcenter 3D Structures Combination									
SC13500	Simcenter 3D Structures (no tokens) and		-	-						
SC30527	Simcenter 3D FE Model Correlation with		-	-						
SC30528	Simcenter 3D FE Model Update	у	-	-						
Correlation wi	th Simcenter 3D Structures Combination									
SC13500	Simcenter 3D Structures (no tokens) and									
SC30527	Simcenter 3D FE Model Correlation with									
SC30528	Simcenter 3D FE Model Update	n								





### Token Scenarios Simcenter Durability

			Token Amount								
Product ID	Product Name	Add	50	100	150	200	250	300	350	400	
Individual											
SC30531	Simcenter 3D Advanced Durability		-								
SC30539	Simcenter 3D Specialist Durability Modelling										
Advanced Durability with Simcenter 3D Structures Combination											
SC13500	Simcenter 3D Structures (no tokens) and		_								
SC30531	Simcenter 3D Advanced Durability with										
SC30521	Simcenter 3D Response Dynamics	n									
Specialist Durability with Simcenter 3D Structures Combination											
SC13500	Simcenter 3D Structures (no tokens) and		_	_							
SC30539	Simcenter 3D Specialist Durability Modelling with		_	_							
SC30540	Simcenter 3D Specialist Durability Solver	у	_	_							
SC30533	Simcenter 3D Specialist Durability for Connections	у	-	_							
Specialist Durability Composites with Simcenter 3D Structures Combination		on									
SC13500	Simcenter 3D Structures (no tokens) and		_	_							
SC30539	Simcenter 3D Specialist Durability Modelling and		_	_							
SC30541	Simcenter 3D Specialist Durability Composite Fatigue		-	_							





### Token Scenarios Simcenter Aerostructures

			Token Amount							
Product ID	Product Name	Add	50	100	150	200	250	300	350	400
Individual										
Aerostructures with Simcenter 3D Structures Combination										
SC13500	Simcenter 3D Structures (no tokens) and									
SC30601	Simcenter 3D Aerostructure Environment and									
SC30602	Simcenter 3D Margin of Safety									





### Token Scenarios Simcenter Additive Manufacturing

			Token Amount							
Product ID	Product Name	Add	50	100	150	200	250	300	350	400
Additive Manufacturing										
SC12500	Simcenter 3D Engineering Desktop (no tokens) or									
SC13500	Simcenter 3D Structures (no tokens) with									
SC40110	Simcenter 3D AM Solver Add-On									





### Token Scenarios Simcenter 3D Material Engineering

			Token Amount											
Product ID	Product Name	Add	50	100	150	200	250	300	350	400	450	500	550	
Individual														
SC40200	Simcenter 3D Materials Engineering Standard		-	-		-								
Materials Engi	neering Standard and Advanced													
SC40200	Simcenter 3D Materials Engineering Standard and		-	-		-	-	-						
SC40201	Simcenter 3D Materials Engineering Advanced		-	-		1	-	-						
Materials Engi	neering with Simcenter Nastran													
SC40200	Simcenter 3D Materials Engineering Standard and		-	-		1	-	-	1	-				
NXN001	Simcenter Nastran Basic <b>and</b>		-	-		-	-	-	-	-				
NXN030	Simcenter Nastran Multistep Nonlinear with		-	-		1	-	-	1	-				
SC40201	Simcenter 3D Materials Engineering Advanced	n												
MLM2000	Multimech HPC Add-on	У	-	-		-	-	-	1	-				
<b>Materials Engi</b>	neering with Simcenter Samcef													
SC40200	Simcenter 3D Materials Engineering Standard and		-	-		-	-	-	1	-	-			
SC30536	Simcenter 3D Environment for Samcef and		-	-	-	-	-	-	-	-				
SCSCF0151	SAMCEF Bacon and		-	-		-	-	-	-	-				
SCMEC0181	Simcenter Samcef Mecano Non-Linear Mechanical Solver w/		-	-		-	-	-	-	-				
SC40201	Simcenter 3D Materials Engineering Advanced	У	-	-		-	-	-	1	-	-			
MLM2000	Multimech HPC Add-on	у	-	-		-	-	-	-	-				





### Which Simcenter 3D versions use Value Based Licensing?

VBL is supported with Simcenter 11 and subsequent

### Can Simcenter 3D tokens combine with tokens in other portfolio products?

 No, Simcenter 3D Tokens can only be used for Simcenter 3D, Simcenter Nastran, Simcenter Samcef and Simcenter Multimech applications.

### Can tokens be used with license borrowing?

No



#### How are Tokens consumed by the product

- When an applications or feature is accessed:
  - Software first checks for the license feature of the module. If not available, then ...
  - Checks for tokens and attempts to check out the required number of token license features
- In both cases, the license features will be held onto until license return actions occur

#### When are tokens more cost efficient then module-based licensing?

- There is no hard-and-fast rule. Each customer's situation needs to be evaluated.
- But in general, customers wishing to use a larger range of products will be a good candidate for VBL.

### Are all Simcenter 3D, Simcenter Nastran, and Simcenter Samcef products usable by tokens?

 Most are but some are not. Several royalty based products are not usable by tokens. Your account manager can explain.



#### Can tokens be used together with module-based licensing?

Yes

#### Can users control whether a module-based license or token license is consumed?

No. Simcenter 3D will always try to check-out the module-based license first. Only if not available will it then
try to check-out token licenses



#### Is it possible use Simcenter Nastran via token with Femap?

• Simcenter 3D base products are a mandatory pre-requisite to use Simcenter Nastran via tokens. If you have a mix of Femap with Simcenter 3D, Simcenter Nastran could be run with tokens.

#### How can users get training for capabilities they may want to use with tokens?

We recommend that users sign up for Learning Advantage where they can do self-training.



If the price for a module changes, will token count change?

No. Normal prices changes (inflation) impact all modules, including tokens, so the ratio "number of tokens= price of module/price of token" remains identical.

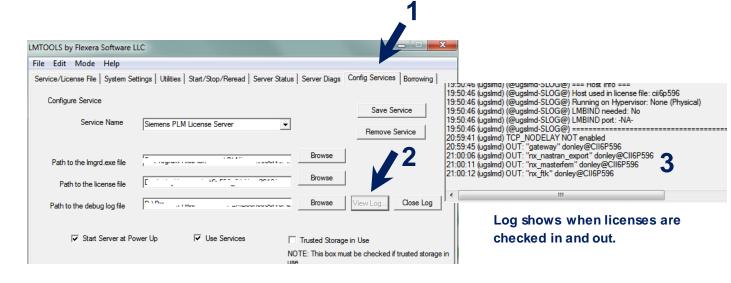
Does Siemens intend to add new applications into the token system?

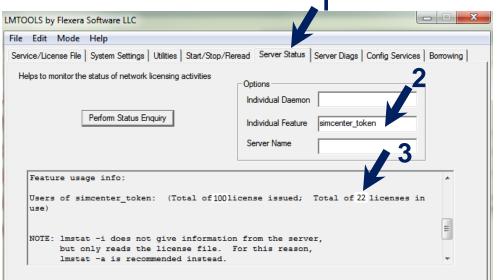
Yes. We are frequently adding new modules and we expect that most will be tokenable. This is the inherent value of the value-based licensing system.



#### How do customers track their token usage?

- Customers can use the Imtools application to track their license feature usage
  - Option 1: From the Config Services tab, users can view the log file. This will give a listing of license features (including for tokens) as they are checked in and out.
  - Option 2: From the Server Status tab, users can enter simcenter\_token in the Individual Feature entry and get a report of total tokens that are licensed and in use at any moment





Example shows 100 tokens in the license file and 22 in use



# Contact

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