

Femap with NX Nastran

Frequently asked questions

Siemens PLM Software

www.siemens.com/plm/femap

► 1. What are the differences between Femap with NX Nastran software and MSC.Nastran for Windows?

The two solutions are very similar and the Femap® software component is exactly the same except that with Femap with NX™ Nastran software, you will benefit by being able to access the very latest release of Femap, version 9.2. While there may be some differences in the packaging of the different solutions, there is no doubt that you will be able to access a similar or better configuration than you currently have, please see the table below for more details.

Nodelocked MSC.N4W option

Expert Modeler with basic analysis
(comprises statics, modes and buckling)

Expert Modeler with advanced analysis
(comprises basic analysis plus nonlinear, dynamics, heat transfer, optimization)

Femap with NX Nastran equivalent option

Femap with NX Nastran E600

Femap with NX Nastran E600

Dynamic response E502

Optimization E508

Dynamic response E502

Included in Femap with NX Nastran

Included in Femap with NX Nastran

Optimization E508

Advanced nonlinear E514

Included in Femap with NX Nastran

Aeroelasticity E504

Superelements E510

DMAP E512

Rotor dynamics E516

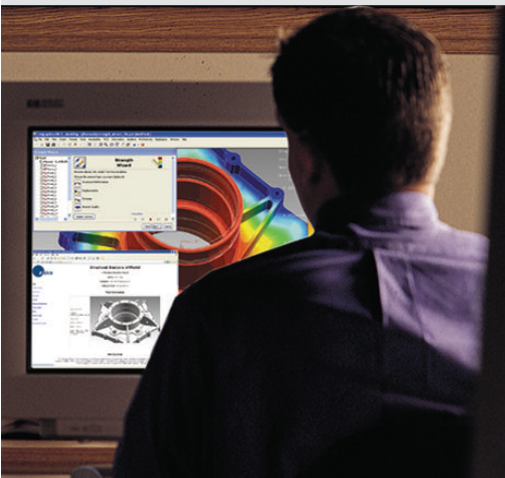
Thermal solver E305

Advanced thermal solver E307

Flow solver E309

Femap E002

CATIA V5 translator E075



Networked MSC.N4W option	Femap with NX Nastran equivalent option	
Expert modeler with basic analysis (comprises statics, modes and buckling)	Femap with NX Nastran	E601
Expert modeler with advanced analysis (comprises basic analysis plus nonlinear, dynamics, heat transfer, optimization)	Femap with NX Nastran	E601
	Dynamic response	E503
	Optimization	E509
Dynamic response	Dynamic response	E503
Heat transfer	Included in Femap with NX Nastran	
Nonlinear	Included in Femap with NX Nastran	
Optimization	Optimization	E509
Nonlinear+	Advanced nonlinear	E515
Shared memory parallel	Included in Femap with NX Nastran	
n/a	Aeroelasticity	E505
n/a	Superelements	E511
n/a	DMAP	E513
n/a	Rotor dynamics	E517
n/a	Thermal solver	E306
n/a	Advanced thermal solver	E308
n/a	Flow solver	E310
Standalone modeler	Femap	E004
n/a	CATIA V5 translator	E076

► **2. What is the cost of transferring to Femap with NX Nastran?**

If you are using the last available version of MSC.Nastran for Windows (2005 – Femap 9.0) there is no upgrade fee or additional software cost for transferring to Femap with NX Nastran, unless you want to extend your software configuration and to include some more advanced modules. However, we do require a payment to cover 12 months maintenance, to run serially with your current maintenance going forward.

► **3. What about maintenance payments, I currently have a maintenance agreement with MSC Software that doesn't expire for months yet?**

To transfer to Femap with NX Nastran we will require an immediate payment for maintenance for one year, to run serially with your current MSC maintenance contract. So, for example, suppose you have seven months left to run with your MSC maintenance contract and you purchase a further 12 months maintenance with Siemens PLM Software, then your next maintenance renewal with us won't come due until 19 months' time.

In other words, we'll still honor your maintenance period with MSC, and add it to the new twelve month maintenance period with Siemens PLM Software, and provide full technical support and software updates for the entire time. That way you'll be able to access the latest version of Femap with NX Nastran immediately, with technical support, and take advantage of future releases as they become available.

► **4. What if I am running an older version of MSC.Nastran for Windows...can I still upgrade?**

Yes, if you are running a version of MSC.Nastran for Windows older than 2005 (Femap 8.3 or older) then you will be required to pay 12 months back maintenance plus 12 months maintenance going forward. However, some payment will be required to get back onto maintenance, as detailed below.

When you get back on maintenance, you will:

- Be able to get the latest versions of Femap and NX Nastran
- Be able to swap out your olderrity device for a new USB one
- Access a more scalable solution, which offers many more advanced analysis add-on modules

► **5. Are there any distinctions or advantages in Femap with NX Nastran versus MSC Nastran for Windows?**

Femap with NX Nastran has the following advantages:

- Femap customers receive updated versions of Femap immediately they release – there is no time delay in the product release, as there is with the repackaged third party products that use Femap. Furthermore, the Femap release always contains the latest version of the NX Nastran solver. The current version of Femap is 9.2.
- There is a higher level of integration between Femap and NX Nastran which comes from greater interaction and close working relationship between the NX Nastran and Femap development groups in Siemens. New functionality that is developed in NX Nastran is simultaneously included in Femap so pre- and postprocessor support for the latest solver capabilities is made available very rapidly. For example, the new linear contact capability became available in NX Nastran 4, released in October 2005, and was supported by Femap 9.1 which released in November 2005.
- Femap with NX Nastran is more competitively priced and offers greater value for money. Functionality that is separately priced in N4W but is included in the Femap with NX Nastran base offering includes:
 - Heat transfer
 - Nonlinear
 - Multiple CPU (shared memory parallel)
- Femap with NX Nastran offers unique capabilities not available in MSC.Nastran for Windows, including:
 - Linear contact
 - Glued connection
 - CWELD fastener elements
- Femap with NX Nastran offers greater solution scalability with the availability of more advanced analysis modules including DMAP, superelements, aeroelasticity, rotor dynamics, advanced thermal analysis and computational fluid dynamics with the flow solver
- Femap with NX Nastran has a simpler licensing system that requires a single set of license codes that activate both programs

► **6. I currently have a node limited version, how do I upgrade?**

Siemens does not offer any node limited versions of Femap with NX Nastran, but you can upgrade to an unlimited version with the same configuration and functionality for no charge, as long as you pay maintenance for the unlimited configuration.

► **7. What is the difference between NX Nastran and MSC.Nastran?**

NX Nastran is based on MSC.Nastran version 2001 under a licensing agreement between Siemens and MSC.Software following the FTC settlement requiring MSC.Software to license MSC.Nastran to another company. For the most part therefore, the functionality accessed by the commonly used analysis types is exactly the same. For the last few years, NX Nastran and MSC.Nastran have followed separate development paths during which time many new features common to both programs have been developed independently, e.g. rotor dynamics. There are some features though, like linear contact and glued connection, that are exclusive to NX Nastran.

► **8. Is there any difference between the version of NX Nastran provided with Femap and standalone NX Nastran?**

No, essentially they are exactly the same program, subject to some differences due to platform dependencies and licensing mechanisms. Femap with NX Nastran can only be run on a Windows platform of course, which cannot take advantage of some of the numerical enhancements provided by the Distributed Memory Parallel (DMP) solver module.

▶ **9. How is Femap with NX Nastran licensed?**

Femap with NX Nastran, like MSC.Nastran for Windows, can be licensed in two ways – standalone using a hardware security device (dongle) or floating on a network. If you currently use a dongle to license your current software, you will be able to keep using the same device to access Femap with NX Nastran, after applying update license codes in the usual manner. For network license installations, a new network license code will be provided to allow access to Femap with NX Nastran.

Note that for the standalone configuration only one set of license codes is required for Femap with NX Nastran – both programs access the dongle in a similar manner.

▶ **10. My current hardware security device (dongle) is a parallel device; can I change that to a USB type device?**

Yes, by converting over to Femap with NX Nastran, you will be able to swap your current parallel device for a new Siemens one for no charge. Just send us your old device, and we'll replace it to cover your software configuration free of charge.

▶ **11. Is the technical support group part of Siemens or is support outsourced?**

In the United States, we do not outsource or use any business partners for technical support of our product lines.

Once you convert to Femap with NX Nastran you'll have access to Siemens' experienced and professional support personnel in the Global Technical Access Center (GTAC), which provides local support from 28 support centers around the globe.

▶ **12. What are the minimum qualifications for support personnel?**

Minimum qualifications include a bachelors degree in engineering, computer science, information technology or equivalent schooling and/or experience. All support agents have substantial and practical experience with our product lines and/or the operating systems and platforms used by our products, and/or programming experience for the support issues associated with programming languages and applications.

▶ **13. What are the hours of availability for technical support?**

Local support is available in local language during normal business hours in the countries that we operate in.

▶ **14. What is the relationship between technical support and developers of the NX Nastran solver?**

The NX Nastran technical support team and development team work closely together. The support team handles the customer interactions for all problems that come in through the hotline system. In the majority of cases, the support team identifies the solutions and provides a follow-up response. In other cases, the support team needs to elevate the issue to development for further investigation and resolution. Sometimes the resolution requires a fix to the code. Problems that give incorrect results must be resolved by the next release and for very critical items a maintenance release will be issued even sooner.

In addition to this structured problem resolution process, the NX Nastran development manager and product manager hold regular meetings with the technical support manager to review support issues.

▶ **15. Is it the same technical support for both Femap and NX Nastran?**

The Siemens GTAC organization is organized in support teams consisting of subject matter experts. Calls are taken through our 800 number; the caller makes the selection for the support area needed, then the call is routed by our automated call distribution system to the first available subject matter expert. GTAC does not have a tiered support model. The calls route directly to a technical support agent capable of handling the request.

► **16. MSC.Nastran continues to be developed by the original developers so how has Siemens continued the development of NX Nastran?**

NX Nastran version 1 first released in September 2003 and was essentially identical to MSC Nastran version 2001 (the initial version of the program that was supplied). Since then there have been several releases – the most recent being NX Nastran 4.1, released in March 2006. We have added significant technical content and capability. In some cases we have made similar enhancements as those made by MSC.Software (like rotor dynamics), but in other cases we have implemented unique capabilities (like linear contact, glued connection etc.).

The NX Nastran development team includes members that worked previously with MSC.Nastran, UAI/Nastran, and CSA/Nastran.

► **17. Are there any aerospace or defense companies using NX Nastran at this time, and if so, please name them?**

Yes definitely. Our largest aerospace account is Lockheed Martin Space Systems and Lockheed Martin Aeronautics. Both of these are large installations of NX Nastran and LMSS, they have completely converted to NX Nastran. LM Aeronautics will take a phased approach to replacing MSC.Nastran with NX Nastran. Furthermore, NX Nastran will be used for F16 and F35 programs.

Other major aerospace accounts that use NX Nastran include NASA Marshall, Northrop Grumman, Pratt and Whitney Rocketdyne, Orbital Sciences, Raytheon, Cessna, General Dynamics Space Systems, Xian Aero Engine, Space Exploration, EMS Technologies, Aerospace Corp, Jet Propulsion Laboratory, General Atomics, Alcatel Alenia Space.

► **Contact**

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