



LS CAD

NEWSLETTER Z88 AURORA®

JUNE 11th 2014

Dear readers,

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In 1985 I wrote the first lines of program code for Z88, a Finite Element Freeware. Today, 29 years later, Z88Aurora® exists, a GUI-based version of Z88.

From the very beginning, Z88 is a software from engineers, for engineers and that is still the credo.

Z88 and Z88Aurora® were never used to earn money. In fact we try to support small and medium-sized companies in designing their products.

Plus we want to provide a software for universities and other institutions which is free of cost and which is not a bit inferior to commercial tools.

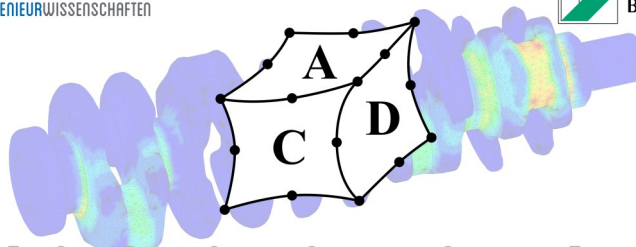
I hope you enjoy reading this newsletter which is supposed to keep you informed about Z88Aurora® continuously.

Best regards,

Your Professor Frank Rieg



Prof. Dr.-Ing. Frank Rieg
Head of the Chair of Engineering Design and CAD of the University of Bayreuth



Chair of Engineering Design and CAD

VISIT US ONLINE



www.Z88.de
www.lscad.de
www.fem-helden.de

Youtube-Channel:
www.youtube.de/Z88Aurora

Facebook:
www.facebook.de/Z88Aurora

Contact:
Z88Aurora@uni-bayreuth.de

Release Z88Aurora® V2b – that's new

On April 3rd, the new Z88Aurora® release V2b was ready for download on our website. Of course, there are some innovations.

Now it is possible to export FEM-structures in STL-file format both non-deformed and deformed. Additionally we created the function trimming.

Starting with a 3D-structure, it enables generating a 2D cross section in order to compute very efficiently with 2D Finite Elements.

Another new feature is called STL-mesh refining. It is possible to convert STL-meshes into shell elements by using a random refining setting.

As always, Z88Aurora® release V2b is available for Windows, Unix and Mac. Just visit our website www.Z88.de and have some fun.

We're already concentrating on V3...



Z88Aurora® at Hannover Fair 2014

From 7 to 11 April this year's Hannover Fair took place. As part of the shared exhibition stand Bayern Innovativ our Chair was rep-



resented, too. All activities of our Chair were introduced to the industrial public. The focus – who could expect otherwise – was our FE-freeware tool Z88Aurora® as well as the new FE Android app for smartphones Z88Tina (see report on page 3).

The response to Z88Aurora® was good, as usual. During the five days of Hannover Fair we conducted many very interesting talks, both with prospective business customers and private persons who are interested in FE. These talks are very helpful to collect valuable feedback in order to

know about recent market trends.

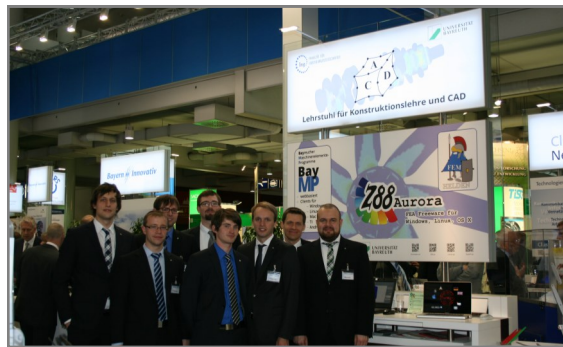
Furthermore our colleague Michael Frisch had the opportunity to present the range of functions of Z88Aurora® within the framework of techtransfer Gateway2Innovation. Therefore we would like to say a big thank you.

Also, special thanks goes directly to Bayern Innovativ,

who gave us the opportunity to use their exhibition stand



once again after 2013.



We are confident that we will be a part of Hannover Fair 2015 as well.

We are looking forward to present new Aurora-functions next year.

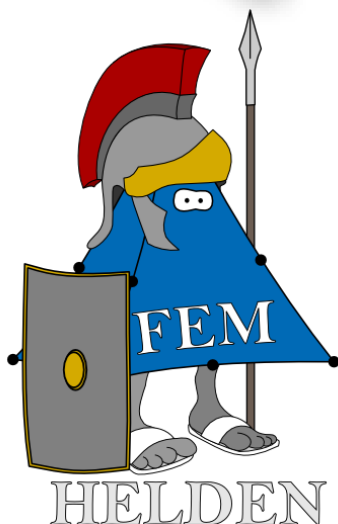


Your opinion counts! Give us your feedback on Z88!

Deutsch: <http://feedback-de.z88.de> English: <http://feedback-en.z88.de>



FEM-HELDEN.DE goes online



A website with helpful hints for students and FE-interested people, that is what fem-helden.de offers. It went online on 10 October 2013.

FEM-Helden (English FEM-heroes) are a community of engineers who are committed to numerical simulation.

A Hero, Latin Heros, is a person who achieves great things in the name of others or in the name of a great

idea while risking his life.

True to this definition, FEM-Heroes engage in disastrous adventures with insidious solvers, dangerous boundary conditions and sly product geometries. Thereby, they neither take care for their own wellbeing nor do they stop at the biggest dangers in order to assist the needy.

These heroes are mainly supported by employees of the Chair of Engineering

Design and CAD of the University of Bayreuth.

Nevertheless, everyone can be a FEM-hero, you too! Be a hero and contact us if you want to help us solving a great number of FE-problems using Z88Aurora® or giving useful hints in the framework of our website!



Z88Aurora® Workshop in October

As every year, our Z88Aurora® Workshop takes place on October 1st, 2014. This workshop is a whole-day course (9am–5pm) and is open for beginners and pro-

will be presented and explained. These analyse-types are:

- Linear mechanical
- Non-linear mechanical

Z88Aurora® Workshop on October 1st, 2014:

Registration: konstruktionslehre.cad@uni-bayreuth.de

or see

www.Z88.de

fessional FE users. Course language is German.

As participant you will get to know the whole range of features Z88Aurora® offers. All modelling and analysing steps which are needed for the different analyse-types

- Free vibration
- Steady-state thermal

Furthermore, the workshop addresses the large possibilities of visualization Z88 offers, e.g. regarding the picking menu for boundary conditions.

Other main topics are:

- Meshing
- Definition of boundary conditions
- Solver types
- Preparation of material data
- Interpretation of results

In addition to a detailed explanation of the features of Z88, participants will also learn about the most important basic knowledge of Finite Element Method.

The program features will be taught on the basis of examples.

Computers, software and workshop-material will be provided for all participants.

Physical well-being is en-

sured as well.

More information and registration details are to be found on our website:

www.Z88.de

or contact us via

konstruktionslehre.cad@uni-bayreuth.de

Save the date

September 17th:

3D-Konstrukteurstag

See www.lscad.de

October 16/17th:

KT-Kolloquium in Bayreuth

See www.kt2014.de

Z88Tina at Google Playstore



Did you ever have the wish to show FE results to a colleague in a fast and efficient way via your smartphone? Yes? Then we can offer something to you!

Z88Tina is our brand new Finite Element Android app. This app is developed to do more than just beams and trusses. It is able to calculate continuum elements such as plates and tori.

Structures can be created right in Z88Tina or can be

imported from your PC via a Text-file.

Online help, a manual and a tutorial-video are also integrated in the app, which makes it easy to use and learn.

Principally, Z88Tina is a very small cousin of Z88Aurora®. It is not made to replace it.

In order to keep up with the time we

would like to check out the feedback of the FE users for

such an app.

We believe that apps will be a big part of future life. Should you have the same opinion, we will expand the functionality of Z88Tina more and more.

Z88Tina can be downloaded free of any cost at Google Playstore. Just follow the link by using the QR-code below.



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