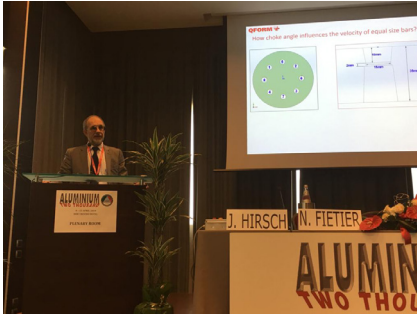


11th Aluminium Two Thousand World Congress on 9–11 April, 2019 in Treviso, Italy

11th Aluminium Two Thousand World Congress was held on 9–11 April at the BHR Treviso Hotel in Treviso, Italy. In the exhibition hall we had a booth where we were glad to meet the congress participants interested in QForm simulation software. The congress was also attended by our partners Ubaldo Panzone (MONTEROSA ADVISORY S.A.G.L., Italy) and Masa Miyake (Applied Design Analysis Corporation, Japan).



Dr. Nikolay Biba with a presentation "Aluminium profile extrusion and product quality control by means of simulation"

Dr. Nikolay Biba (Micas Simulations Ltd., QForm Group, UK) made a presentation "Aluminium profile extrusion and product quality control by means of simulation" during the congress.

Polish Forging Association Seminar on April 11–12 in Zdzieszowice, Gogolin

The Association brings together individuals and companies from forging industry, suppliers of equipment and materials, end users and scientific institutions (Universities, Institutes etc.). The association is a member of the European Association of forging EUROFORGE and scientific cluster HEFAJSTOS.



Bartłomiej Nowak, President of ZKP, opened the forging seminar



Awarding of Mr. Rudolf Kenig — Firma Usługowa Kendin

Paul Mordvintsev (QForm Group) demonstrated a presentation «QForm simulation software for design, analysis and optimization of metal forming processes». Representative of QForm Group Mr. Rudolf Kenig (Firma Usługowa Kendin) was awarded with a medal for long-term service and support for companies' members of the association.

Forge Fair 2019 in USA. May 21–23



Dr. Nick Biba, Micas Simulations Ltd., and Mr. Tom Ellinghausen, Forge Technology, Inc., at our booth #118

The first time QForm has been presented at Forge Fair in 1997 and since that time we didn't miss any single exhibition. This time together with Forge Technology, Inc., QForm representative in USA, we presented a new version of QForm software at booth 118 in Cleveland Convention Center we presented QForm 9.

At the conference we made two presentations: one dedicated to the methods of prediction and elimination of forging defects and another about advanced ring rolling simulation. Both presentations have attracted the big interest of the participants, and many of them came later to our booth to learn more about our software and experience of its practical implementation.

NEW QFORM 9

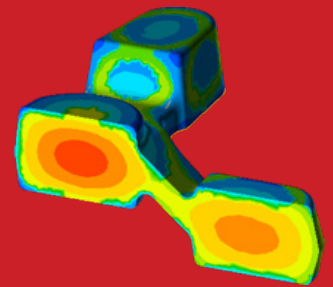
New QForm Heat Treatment and Microstructure

Capable to simulate:

- phase composition
- residual stress
- residual strain

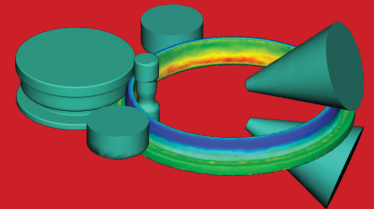
Mechanical properties prediction:

- hardness
- ultimate tensile stress



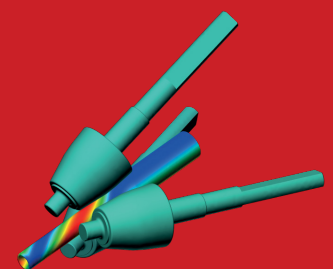
New QForm Ring Rolling

- Database of ring rolling mills
- Relative difference in velocities of upper and bottom axial rolls
- Axial roll velocity depends on load and torque
- Cylindrical coordinate system
- Electro-mechanical drive type
- Simulation of complicated processes



Rolling module

- Automatical definition of necessary boundary conditions
- Automatical use of dual mesh algorithm
- Automatical mesh adaptation in deformation zone



QForm Forum. Berlin. May 27–29, 2019

Researchers and engineers from 17 countries came together in the capital of Germany to discuss new QForm 9 which was officially presented by QForm Group specialists during the event.

Among many new interface and calculation features and possibilities of new QForm version, we want to highlight implementation of popular models for workpiece damage analysis, new module for microstructure evolution prediction, variation analysis and multi-view mode, significant improvement of ring rolling, profile extrusion, heat treatment, cross rolling modules, and new QForm Cloud.



Complimentary speech of Dr. Sergey Stebunov, CEO, QuantorForm Ltd., QForm Group



QForm Forum participants

This year within the forum we organized a special session dedicated to simulation of aluminium profile extrusion which was very popular. Participants shared experience in using simulation software for different purposes.

QForm Seminar for steel pipes and aluminium manufacturers on May 29, 2019 in Moscow, Russia

QForm seminar was held during the exhibition "Metalloobrabotka 2019" in Moscow, Russia. The seminar was dedicated to new QForm 9 and its new features and possibilities.

Besides presentations of QForm Group specialists, reports were made by representatives of steel pipes manufacturing and aluminium products companies using QForm software – "PNTZ", "RosNITI", Vyksa Steel Works and ILMiT OK RUSAL. In discussion, when the seminar ended, participants continued to share to each other their experience of using simulation software for design and optimization of metal forming processes, to search ways of solving different problems together.



"Possibilities of new QForm version for simulation of cross-roll piercing and shape rolling processes", Danila Avramenko, engineer of technical support, QForm Group

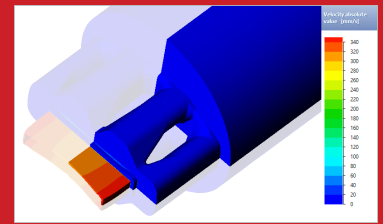


"Experience of using QForm at "RosNITI", Evgeniy Khramkov, head of laboratory of metal forming processes simulation

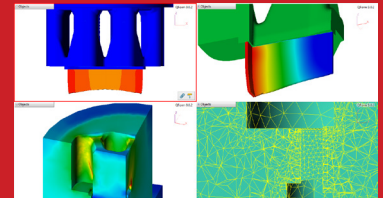
After QForm seminar representatives of pipes manufacturing companies using QForm took part in advanced training in using special module "Cross rolling" on May 30-31 at QuantorForm Ltd. office.

New QForm Extrusion

- Symmetry condition
- Simulation of several billets
- Advanced interface possibilities
- Grain size evolution

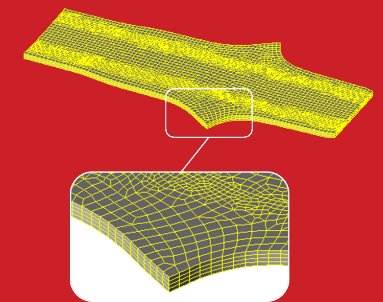


Multi-view mode



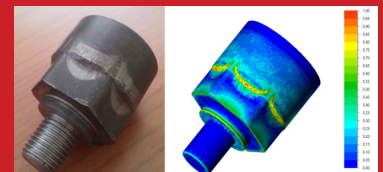
New type of mesh elements: Hexahedrons

Easy creation of 3D mesh from 2D hexahedral mesh



Workpiece damage analysis

9 damage models are implemented in the database of deformed materials



Sheet metal forming

Orthotropic material properties

