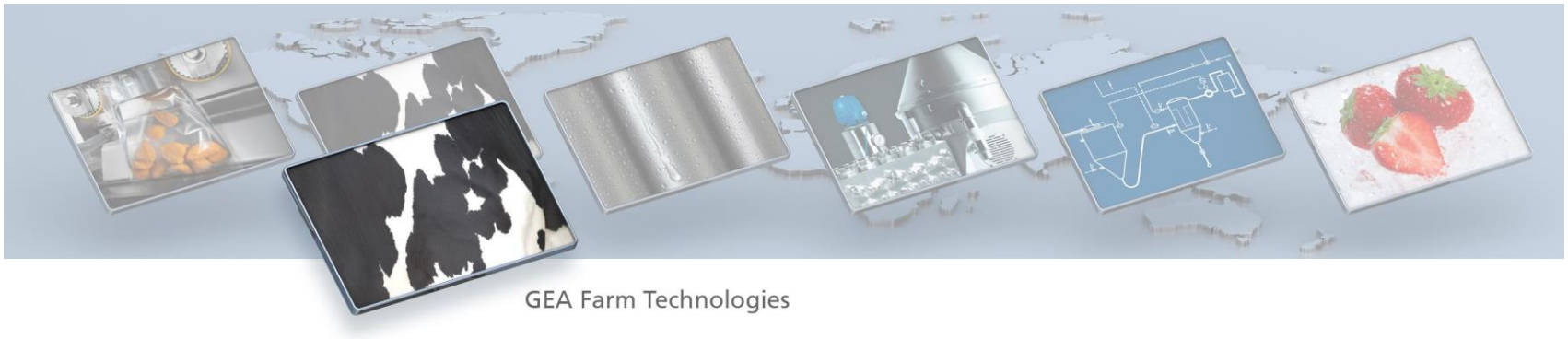


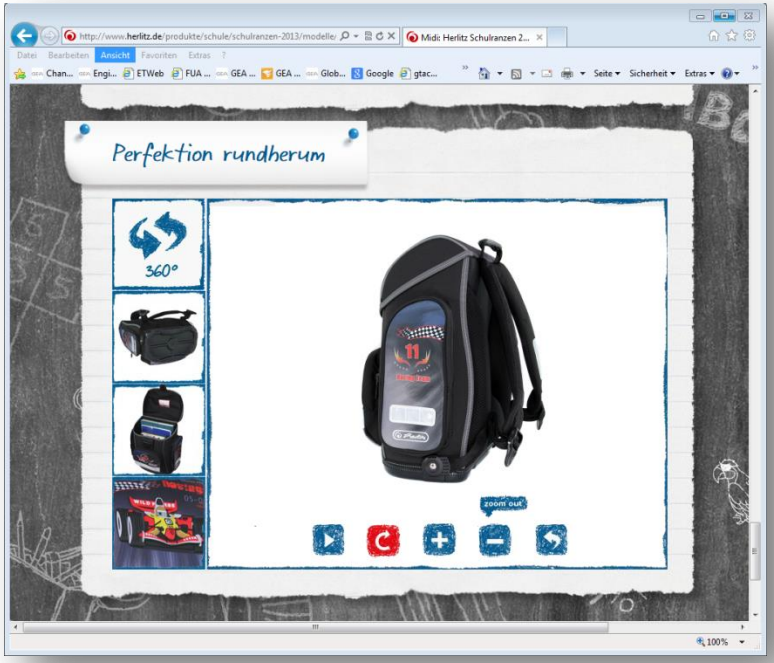
Generate 360° web presentation from 3D CAD

Example Utilization of NX Render QTVR Export
100170 CAE / TDM – Matthias Ahrens
2013-09-17

GEA Farm Technologies

The Intent

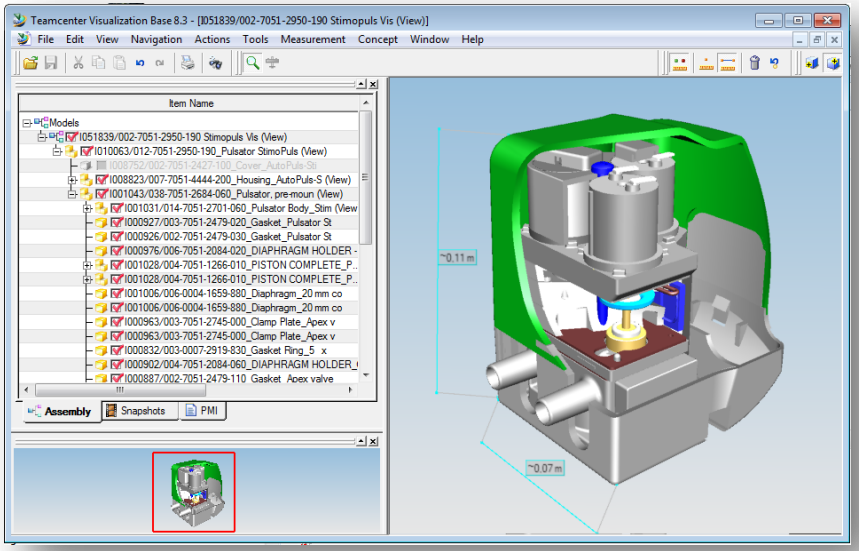
- Produce 360° views of 3D NX CAD data for web illustrations
- Those 360° views can be used in web shops or other illustrations for the internet
- With a HTML 5 browser those presentations do not need a special plugin on the client site.

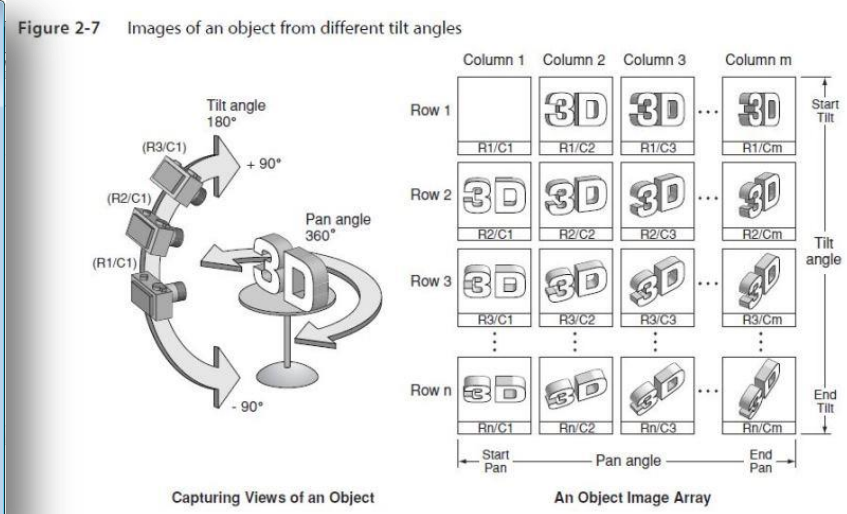


The Background

- Instead of exporting the entire product structure of a CAD model or the detailed geometric information via JT or other 3D visualization formats the 360° presentation only represent the view to the same product from various perspectives
- Therefore the risk of publishing engineering know-how via such 360° is nearly zero.

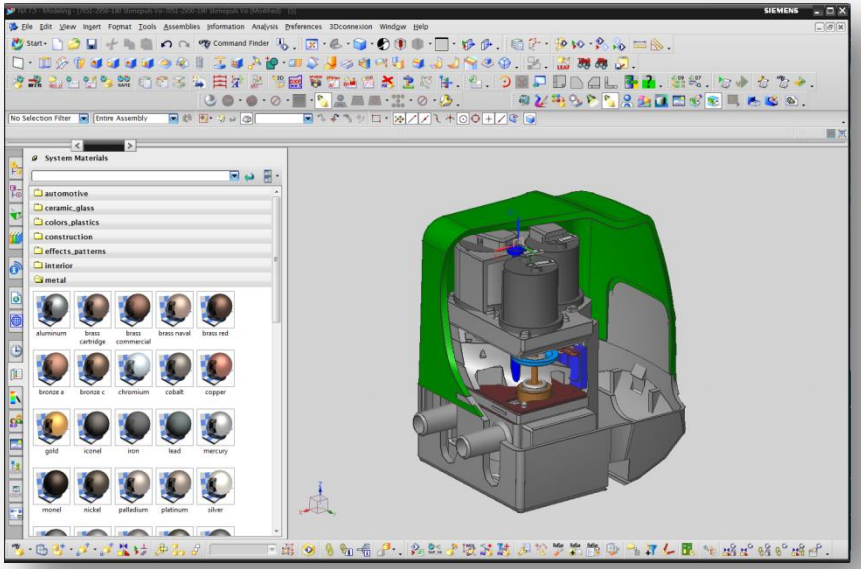
3D Visualization (e.g. JT) versus 360° presentation principle

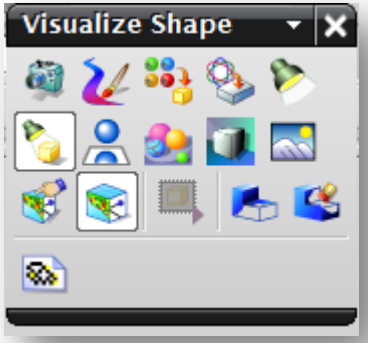




Preparing the NX Photo - Process

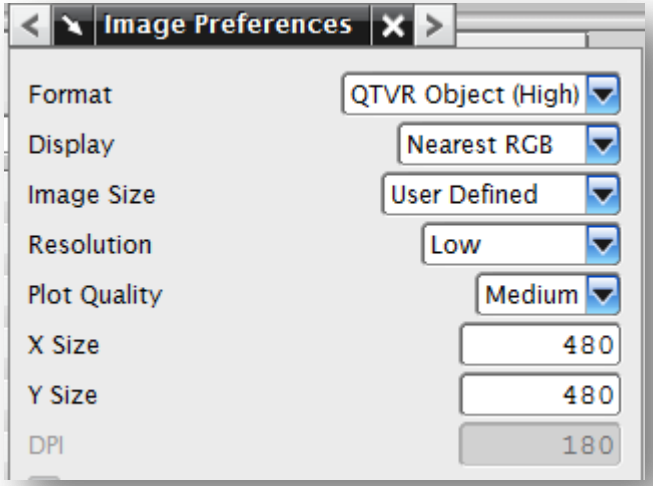
- NX is using the LIGHTWORKS Design Ltd. render engine.
- Apply render – materials to the relevant solids resp. faces.
- Use the Visualize Shape tool bar and the “Cameras” to setup a correct render scene.

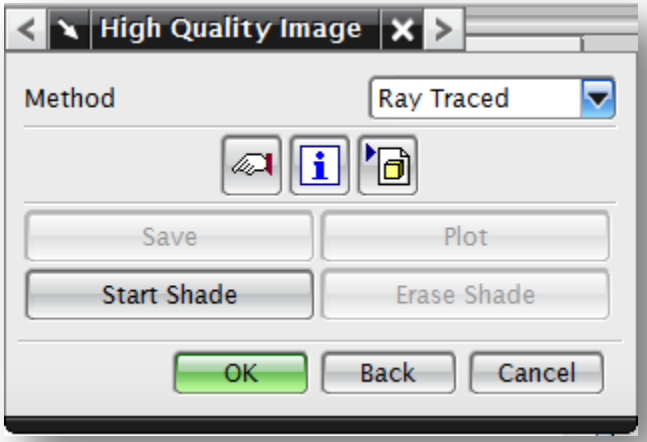




Export to 360° (QuickTime Format)

- Set Image Preferences of High-Quality Image dialog to QTVR Object.
- QTVR Object (Low) produces 9x8 = 182 views (20° steps).
- QTVR Object (High) produces 19x38 = 684 views (10° steps).
- Take care for “Resolution” and “Image Size”. Set it to web and performance optimized values!
- Export QTVR .mov file by “Start Shade” command.



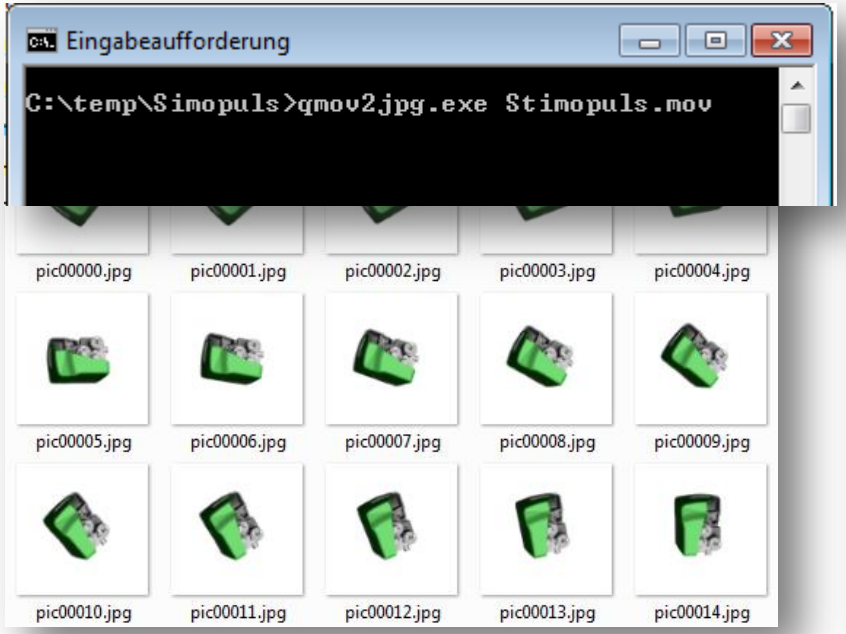


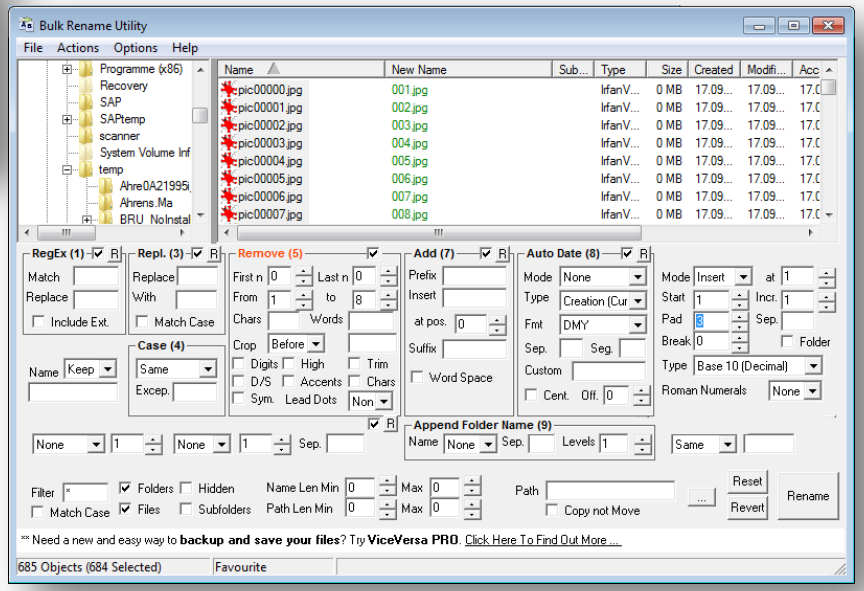
Review 360° (QuickTime Format)

- With the old Apple QuickTime Plugin you can review the generated 360° views directly.

Extract and rename images

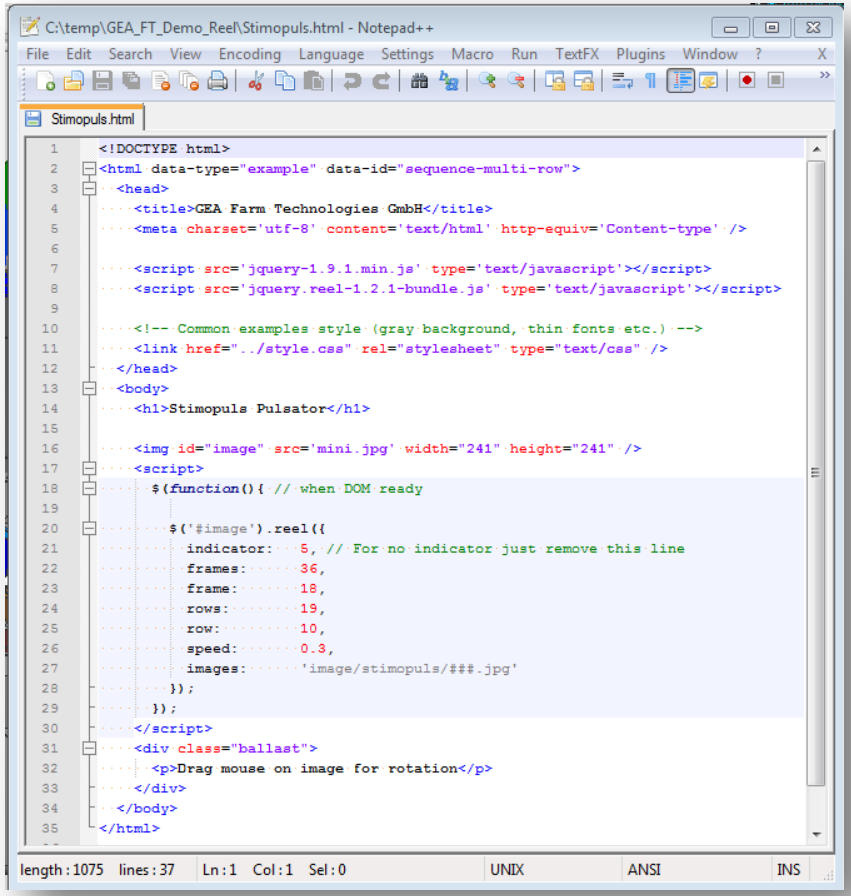
- Use the qmov2jpg.exe extractor from Ken Silverman to extract all images from the QTVR .mov file to a local disc space. http://advsys.net/ken/kube/kube.htm
- Use maybe tools like “Bulk Renaming Utility” to rename the image sequence to a logical order starting with image 001.jpg http://www.bulkrenameutility.co.uk/Main_Intro.php

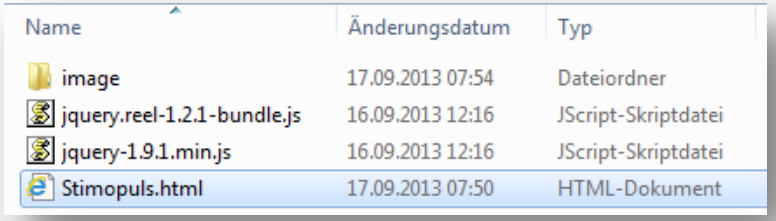


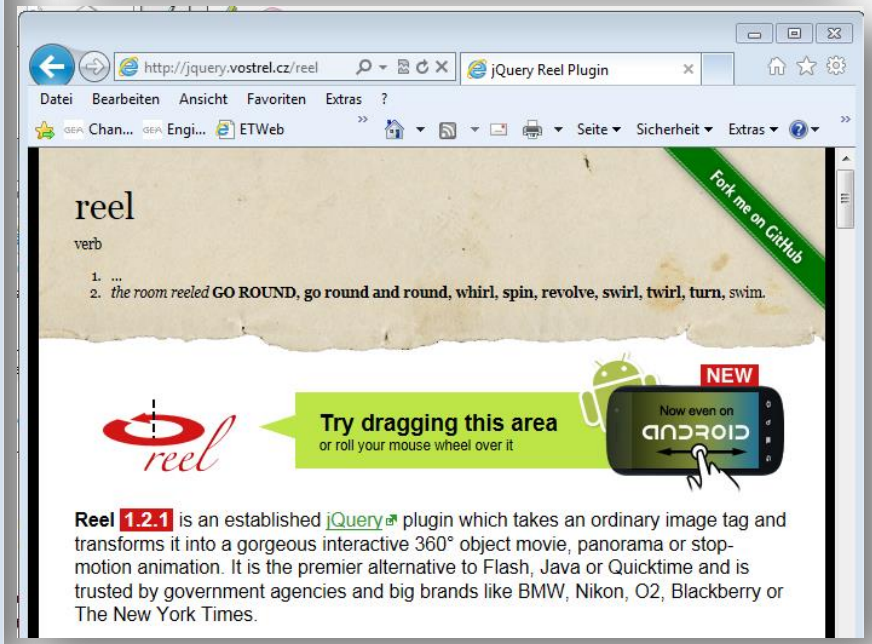


Extract and rename images

- Use the “reel” and “jquery” javascript plugins to generate an initial html web page. Take care for the image path/wildcard and frames/rows settings. http://jquery.vostrel.cz/reel







The Result

- With this converting path you can generate the basic image sequences for 360° views, which can used in web shops, etc.