

## »SAR-Tutor« computer-assisted training for radar image exploitation

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»SAR Tutor« aids the understanding necessary for interpreting radar images in the scope of blended learning courses.

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### Need - Solution - Benefit

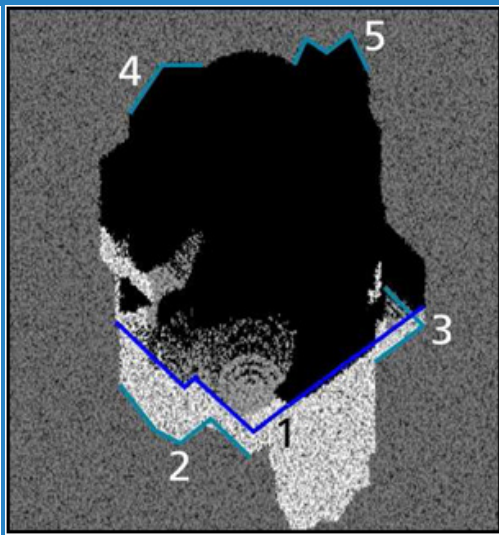
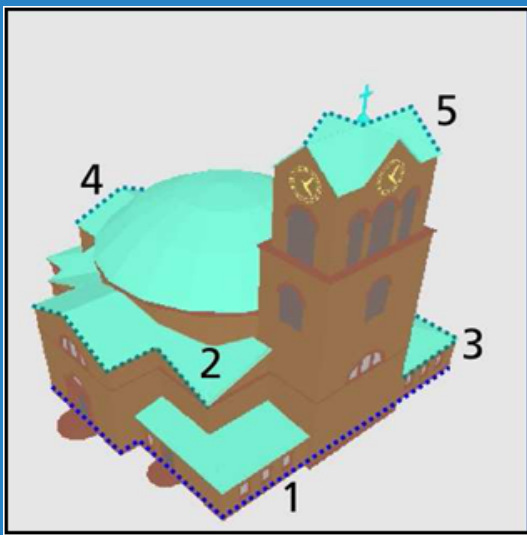
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When it comes to evaluation and analysis, radar images differ significantly from optical images. Using electro-magnetic waves, synthetic aperture radar (SAR) is even capable of rendering images created under »cloak and dagger« so that they can be interpreted. The radar image analyst training covers how to interpret such SAR images as well as the kind of image information that can be derived on their basis.

Based on a textbook metaphor, »SAR Tutor« utilizes various multimedia and hypertext methods to support the learning

process. Interactive sketches and animations offer room for exploring the characteristics which form the basis for the SAR images.

This is supplemented by an integrated simulator, which renders geometric radar effects in an interactive manner. Tasks are another primary aspect of »SAR Tutor«. Didactically distributed tasks allow students to evaluate their own learning success. Image exploitation tasks, which are relevant for reconnaissance, provide hands-on examples, whereas the automatic positive/negative feedback on all tasks improves the student's assessment of his learning progress. Dynamically generated task types also enable varied processing of tasks. In the scope of blended learning »SAR Tutor« helps students understand how imaging radar systems work:



**Target group**

The benefits of radar images are recognized. In addition to their benefit for military purposes, the skills acquired with »SAR Tutor« are also appropriate for application scenarios such as the analysis of agricultural cultivation or qualitative evaluation of forest damage.

Users in the field of air and satellite-aided radar image exploitation both for civil and national applications for example:

- Coast and water protection,
- Environmental protection,
- Reconnaissance and surveillance,
- Inner and external security.

