



ABSTRACT

With the new research project SCADA::GIS, researchers of the course program Information Technology and System Management are joining process supervision and control with geo-information. Today, almost all technological processes are supervised, visualized and controlled by special computer systems, which are called SCADA-Systems. 'Just imagine a production line for filling bottles. For example, there is a tank number 2 containing a liquid. If the amount of liquid is too low at any time, the SCADA-System will show a warning message' explains Thomas Heistracher, Head of IT-Research. However, from the system alone, no-one could really tell, where the tank is being located. Information about the location are either stored in a different file, or the employee has to know the location of the tank. Within the new research project SCADA::GIS ITS-researchers combine process data with geo-information to allow sufficient supervision and control of industrial production with location dependent subsystems.

Bridging the gap

To bridge the gap between SCADA-Systems and geo-information systems, Heistracher and his team are evaluating relevant standards, which are available for every type of technical communication. 'It is defined, how one piece of equipment has to be connected to another one and how data is being transferred between the two devices, just to name one example. However, for SCADA, different standards have been established than for geo-information systems.' The researchers have set the goal to establish a standardized crosslink (translator) between those two individual domains.

Cooperation with industrial partners

Following the initial conceptual stage, the newly developed system architecture will be tested in a prototypical environment. To accomplish this, the ITS-researchers have teamed up with the scientists of iSPACE, a research studio belonging to Research Studios Austria Forschungsgesellschaft and two industrial partners from Salzburg. SYNERGIS is an Austrian manufacturer for geo-information systems and COPA-DATA produces a SCADA software called zenon to automate, control, visualize and optimize production lines and distribution systems for more than 20 years. 'Especially with COPA-DATA we are engaged in a very successful cooperation for many years and we are concurrently working on two projects with this powerful and innovative company', ITS-researcher Simon Kranzer adds, who played a leading role in developing the SCADA::GIS project.

Team:	Thomas Heistracher, Simon Kranzer, Simon Back
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Sponsored by:	FFG, BRIDGE
Co-operation partner:	Copa Data GmbH, Research Studios Austria Forschungsgesellschaft mbH, SYNERGIS Informationssysteme GmbH