

Workflow Management at RRP

RRP-N.V. Rotterdam-Rijn Pijpleiding has introduced the Asset Management Tool GeoNAM in 2014. The GeoNAM components Information, External Inquiries and Workflow Engine help the Dutch pipeline operator in creating, managing, controlling and implementing activities related to construction work near their pipes.

Background information

RRP manages different processes concerning activity management and third party inquiries (WION/KILIC). The GIS that is used for documenting the company's assets is complemented by the GeoNAM work management system. The new setup provides access to activities also for employees working remotely and for external service providers, based on an internet application.

The activity management and WION/KLIC functionality covers processes common to many pipeline operators. WION/KLIC is a system for dealing with third party inquiries / dig requests which is regulated by Dutch law and managed centrally for the whole of the Netherlands. For the application users, activity management and inquiry processes are presented as a list of jobs that can be assigned to a specific person, executed and then marked as completed.

Overview of project goals

RRP wanted to move the processes they were already using to a web-based solution in order to minimize maintenance efforts and improve usability. RRP now uses GeoNAM Information, GeoNAM External Inquiries and GeoNAM Workflow Engine. It is important to the company to not only model and execute correct business processes, but also to completely document process execution and archive the results and related documents in order to comply with legal traceability obligations.

»Both internal business processes and legal obligations tend to change quickly. It is an important point in favor of GeoNAM that workflows can be adapted exactly to customer requirements and that they can be configured reasonably easily. It is also important that different KLIC messages can be treated in a fixed pattern by RRP employees and archived. In this way, we can demonstrate legal compliance at a later date to external parties such as public authorities.«

Implementation details

RRP receives inquiries and dig requests in a pre-processed form from an external service provider who is responsible for dealing with KLIC requests from all of the Netherlands. The service provider has access to pipeline and cadastral data and assigns a status of “not affected”, “affected”, or “affected with close surveillance required”. For each inquiry, an XML file and a PDF file are delivered, which are then imported into GeoNAM. The XML file contains contact information, a description of the construction work to be done, and coordinates. Using these coordinates, an area geometry can be created and displayed in GeoNAM to make the position and size of the affected area visible to all users. A process is automatically started by the system, depending on the type of inquiry, its status, and the department responsible at RRP for the affected area. Jobs are displayed in the task list on the GeoNAM start page, and can be assigned to individual users.

In the map view, information can be displayed and marked thematically. For example, parcels of land can be displayed along with the pipeline information, or pipe segments on which construction surveillance by the operator is mandatory can be highlighted. This functionality provides added reliability for RRP that the status of the inquiry is dealt with correctly.

The GeoNAM Workflow Engine supports process management. Business processes can be modelled graphically and used immediately. It has to be stressed that processes cannot only be modelled, but also linked to GeoNAM objects, connecting the data in the application to defined input forms or jobs. The Workflow Engine controls the process steps, making sure that the process is executed exactly as modelled.

The N.V. Rotterdam-Rijn Pijpleiding (RRP) was established in 1958 as a joint venture between Shell, Ruhr Öl, BP and Texaco. RRP operates two pipelines stretching a total length of 295 miles. One pipeline system transports crude oil to refineries in Germany. The other transports oil products such as petrol, naphtha, diesel, gas oil and kerosene. Both pipeline systems are efficient, safe and environmentally friendly.

If a process definition is modified, new inquiries will automatically be governed by the new definition, while existing process instances will be finished according to the old process definition they were started with.

Supported tasks

- Interdepartmental workflows
- Cooperation with external service providers
- Asset information for inquirers and processing of asset/construction information received
- Complete audit-proof documentation of processes and archiving of related documents
- Automated drawing of affected areas over a background map
- Thematic mapping for data analysis
- Initiating construction surveillance measures
- Initiating asset documentation updates, creating detailed plans if necessary

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