Scheduling using gOntt
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What is Scheduling?

**Scheduling**

**Definition**
Scheduling refers to the activity of identifying the different activities and processes to be performed during the ontology development, their arrangement, and the time and resources needed for their completion.

**Goal**
The scheduling activity establishes a concrete programme or schedule to guide the ontology network development; it includes processes and activities, the order in which these are carried out as well as time, human resources restrictions and assignments.

**Input**
Ontology Requirements Specification Document (ORSD).

**Output**
Schedule for the ontology network development.

**Who**
Software developers and ontology practitioners, who form the ontology development team (ODT), in collaboration with users and domain experts.

**When**
This activity must be carried out after the ontology requirements specification activity.

Why Scheduling is needed?

To properly manage a development project, it is crucial to have knowledge of the entire development life cycle. In this regard, planning and scheduling are related activities that should be carried out before starting any project. The project plan defines the tasks to be done and the human resources to perform the project work. The project schedule is a calendar that links the tasks to be done with the resources to support their performance.

Ontology Network Life Cycle

Scheduling includes the establishment of the ontology network life cycle, that is, the specific ordered sequence of processes and activities that ontology developers have to carry out during the life of the ontology network.

Processes and Activities are defined in Chapter 3.

Ontology Network Life Cycle Models

The ontology network life cycle model defines in an abstract way how to develop an ontology network project.

The waterfall ontology model represents the stages of the ontology development as a waterfall (a concrete stage must be completed before the following stage begins and backtracking is permitted from the maintenance phase to the phase after the requirements one).

The iterative-incremental model organizes the ontology development in a set of iterations (or short mini-projects with a fixed duration). Each iteration is scheduled as a single ontology project using a waterfall model.

The Gantt chart illustrates the start and finish dates of the processes and activities involved in the project, as well as dependencies among them.
gOntt is a NeOn Toolkit plug-in that provides support to ontology developers

(a) to decide which ontology life cycle model is the most appropriate for building their ontologies (e.g., waterfall, iterative-incremental), which processes and activities should be carried out and in which order (e.g., specify ontology requirements before re-engineering a knowledge-aware resource into an ontology) and

(b) to create a graphical representation in the form of a Gantt chart with the processes and activities needed, including time restrictions between them. Schedules for ontology development projects can be created either from scratch or in a guided way.

Additionally, gOntt provides help for ontology developers during the ontology project execution by means of

- presenting a filling card that includes the process or activity definition, its goal, inputs and outputs, who carries it out, and when it should be done,
- presenting a workflow that describes how the process or the activity should be done, with its inputs, outputs, tasks and actors involved, etc., and
- providing a direct access to NeOn Toolkit plug-ins associated to each process and activity.

Additional information:
- NeOn Deliverable D5.3.2

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