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Ontology Network Life Cycle Model

An **ontology network life cycle model** is defined as the framework, selected by each organization, on which to map the activities identified and defined in the NeOn Glossary of Activities in order to produce the *ontology network life cycle*.

- As in Software Engineering, in the *Ontology Engineering field*, there is not a unique model valid for all ontology development projects, since each life cycle model is appropriate for a concrete development, depending on several features.

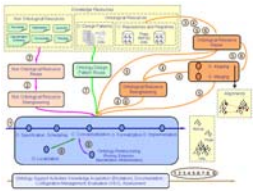
The **ontology life cycle** is the specific sequence of activities that the ontology practitioners carry out for developing an ontology.

- NeOn Deliverable D5.3.1 (2007)
- I-SEMANTICS 2008
- PhD Thesis (2010)

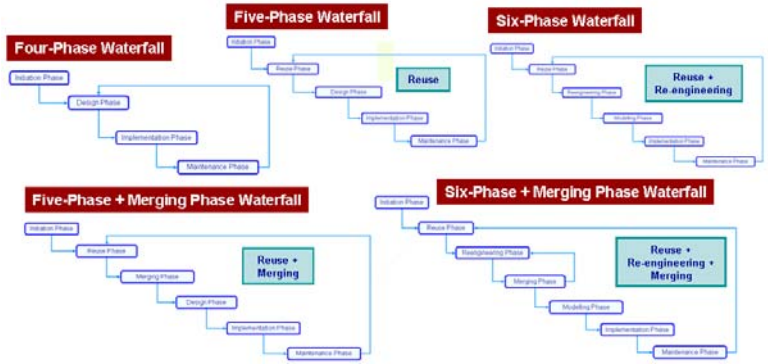
Waterfall and Iterative-Incremental Models

Waterfall Model

– To be used when: **the requirements are completely known, without ambiguities and unchangeable at the beginning of the ontology network development**.



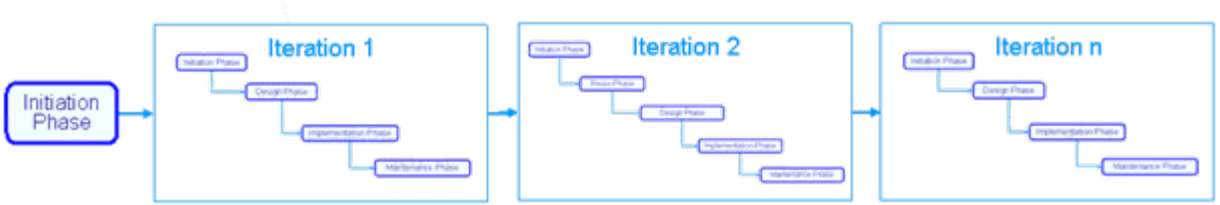
Scenarios identified caused the creation of different versions



Iterative-Incremental Model

– The **development of ontology networks organized in a set of iterations**.

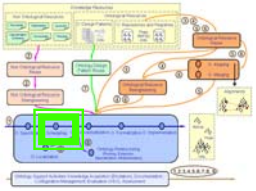
– The **result of any iteration is a functional and partial ontology network** that meets a subset of the ontology network requirements.



❑ PhD Thesis (2010)

Scheduling. Filling Card

D5.3.2



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 states a concrete programming or scheduling to guide the ontology network development, including processes and activities, their order, and time and human resources restrictions and assignments.

Input

Ontology Requirements Specification Document (ORSD).

Output

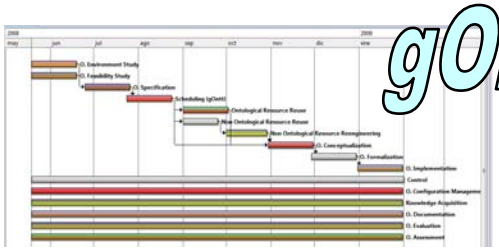
Schedule for the ontology network development.

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.

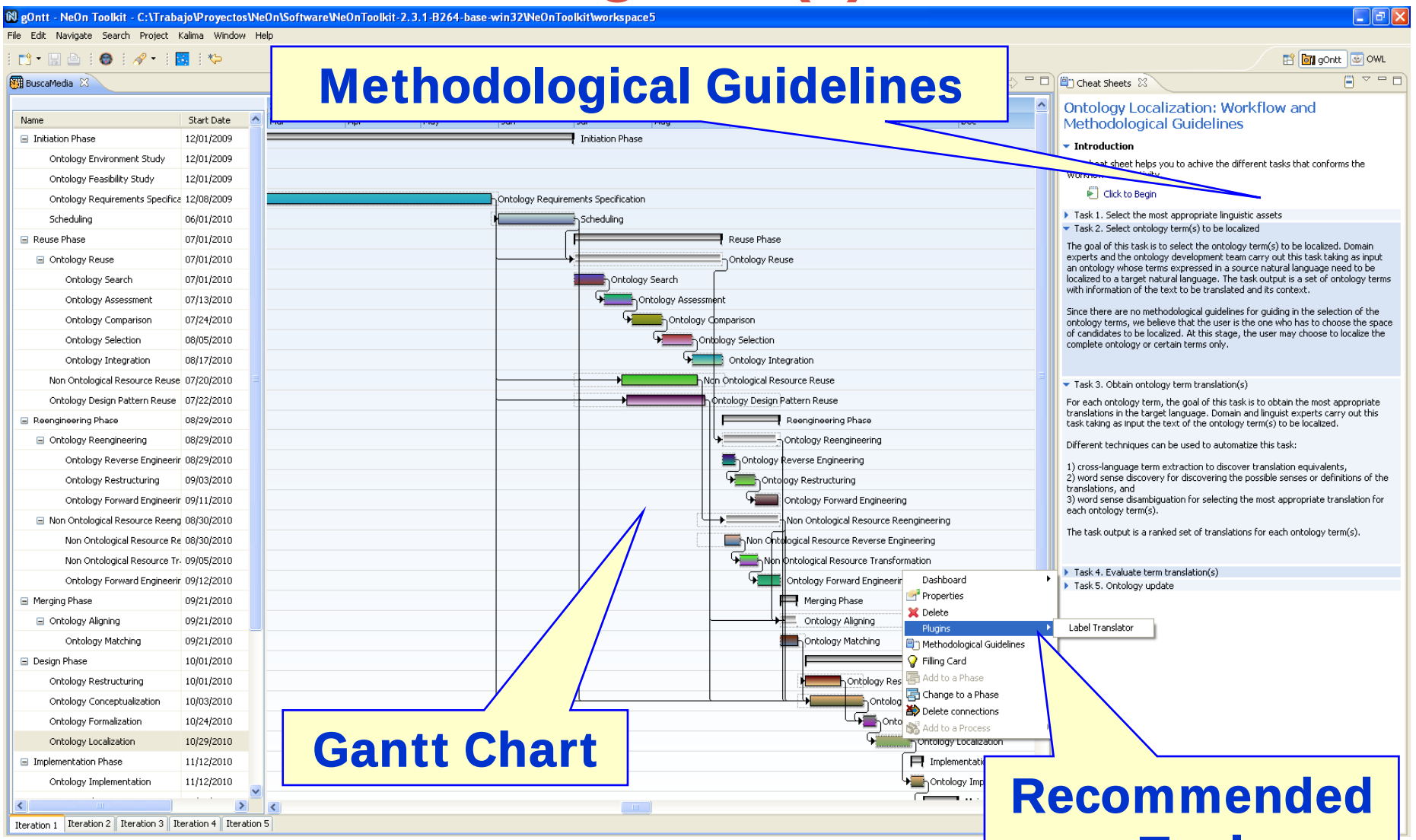


❑ PhD Thesis (2010)

Scheduling: Technological Support. gOntt (I)

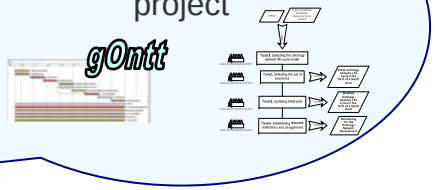
- **gOntt** helps in **scheduling an ontology network development project**
  - To create particular schedules from scratch
  - To create particular schedules in a guided way
    - gOntt provides wizard menus to select the ontology life cycle model and to select processes and activities
    - gOntt uses templates to automatically generate the initial plan for the ontology project in the form of a Gantt chart
- **gOntt** is a **NeOn plug-in for integrating the NeOn Methodology and the NeOn Toolkit**
  - gOntt provides filling cards, workflows, and methodological guidelines
  - gOntt triggers the NeOn plug-ins associated to each process and activity planned

Scheduling: Technological Support. gOntt (II)



Scheduling: gOntt and Guidelines

I need to schedule my ontology development project



ORSD

Types of potential knowledge resources to be reused

INPUT

Users, Domain Experts and ODT

Task 1. Selecting the ontology network life cycle model

Users, Domain Experts and ODT

Task 2. Selecting the set of scenarios

OUTPUT

Initial Ontology Network Life Cycle in the form of a Gantt chart

Users, Domain Experts and ODT

Task 3. Updating initial plan

OUTPUT

Modified Ontology Network Life Cycle in the form of a Gantt chart

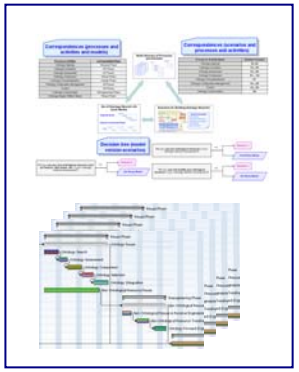
Users, Domain Experts and ODT

Task 4. Establishing resource restrictions and assignments

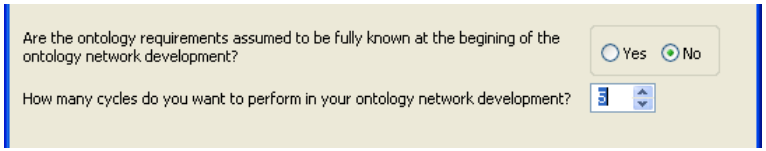
OUTPUT

Scheduling for the Ontology Network Development

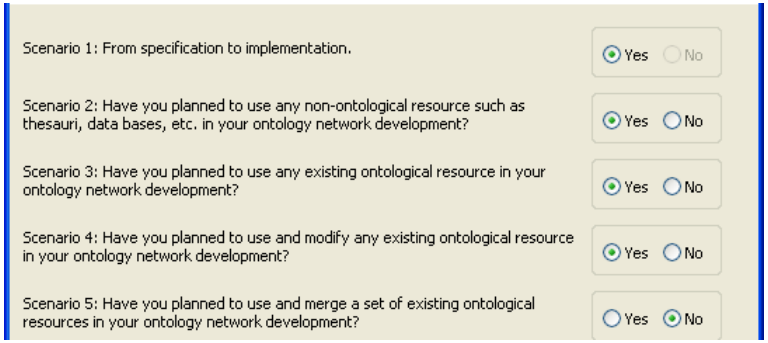
Methodological Basis

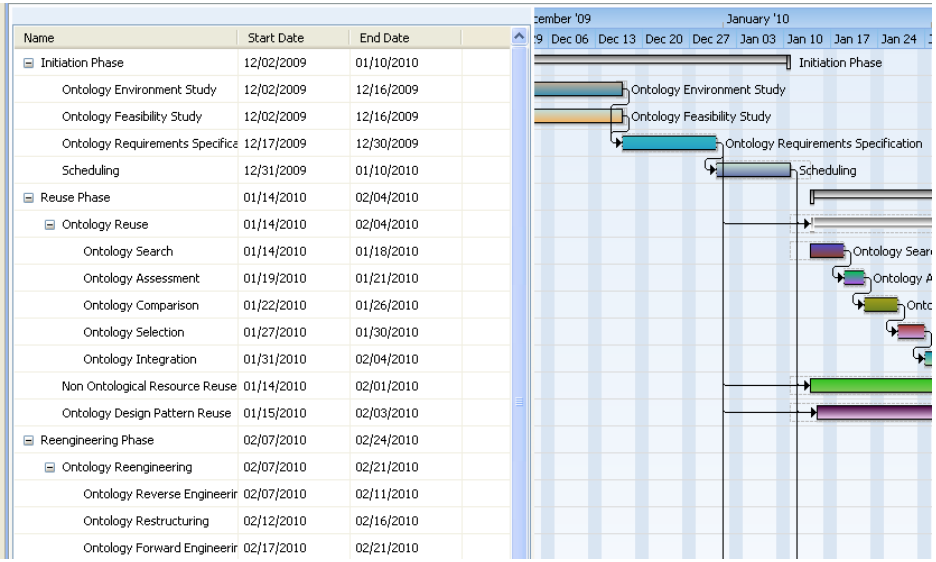


Life cycle model selection

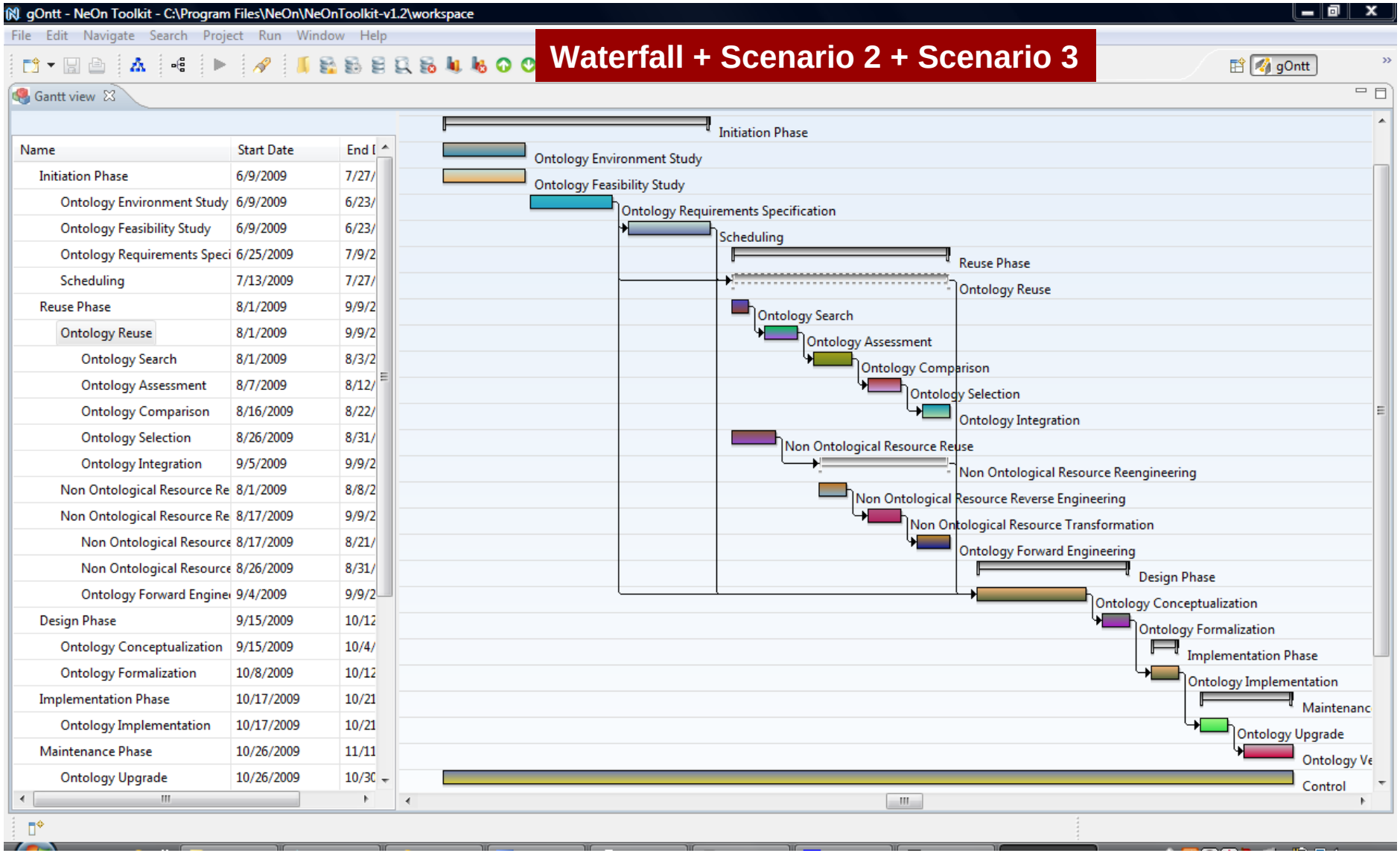


Scenarios selection





Gantt chart for your project (I)



Gantt chart for your project (II)

Iterative/Incremental + Scenario 2 + Scenario 3