


<p>PROJECT: ICT Platform for Holistic Energy Efficiency Simulation and Lifecycle Management Of Public Use Facilities</p>	
<p>DELIVERABLE TITLE: nD-Navigator</p>	<p>Deliverable Number: D 7.1 (Confidential, only for members of the consortium (including the Commission Services))</p>
<p>WORK PLAN: The objective of the Deliverable 7.1 "nD-Navigator" is the concept and architecture of a new, easy to use IT tool for flexible navigation in the nD information space, thereby enabling presentation of simulation results not only in detailed engineering representation forms but also – at least for preliminary design and overview inspection – in intuitive manner based on perception aspects and criteria.</p> <p>The results of Deliverable 7.1 are based on the general idea of the nD-Navigator published in the Deliverable 2.2, Chapter 4.5.</p>	<p>Deliverable Main Authors: Ales Siroky (NEM) Raimund Zellner (NEM)</p> <p>Co-Authors: Rasso Steinmann, Bastian Bort, Marie-Christine Geißler, Wilfred van Woudenberg, Jens Kaiser, Reijo Hänninen, Tuomas Laine, Friedrich Jonas, John Grunewald, Konrad Stuhlmacher, Romy Guruz, Peter Katranuschkov</p>
<p>EXECUTIVE SUMMARY: Energy saving measures, emission reduction and reduction of life-cycle costs are becoming increasingly important in the optimisation of complex facilities. These factors cause enormous costs that are far beyond a building's life cycle. However, sustainable construction is not limited to energy saving. In addition to optimising costs, there are a number of important aspects that need to be studied in advance. This is particularly important for PPP projects. These aspects include:</p> <ul style="list-style-type: none"> • Human well-being • Ecological aspects and climate protection • Slow ageing of the building structure and simple refurbishment/retrofitting • Flexible arrangement and utilisation of rooms <p>In terms of sustainable design, this means that design alternatives and building states are to be analysed and assessed on an interdisciplinary basis.</p> <p>As a result, planners, designers and facility managers require a simple but effective tool that clearly displays results from complicated and complex simulations and measurements, thus providing support in the decision-making process. This tool is called nD-Navigator. The Deliverable D7.1 covers the overall work performed within task T7.1 "Concept and architecture of the nD-Navigator" of WP7. It is structured into two parts.</p>	<p>Deliverable Partners:</p>    

In the **part one** of the Deliverable 7.1 the concept of the nD-Navigator, its components and the functionality are described in detail.



FIGURE: overview of the nD-Navigator components. The access will be realized via Internet. This Graphic User Interface is a first design draft for the nD-Navigator.

Part two describes the architecture of the nD-Navigator. It includes also the detail description of the signal processing of this tool.

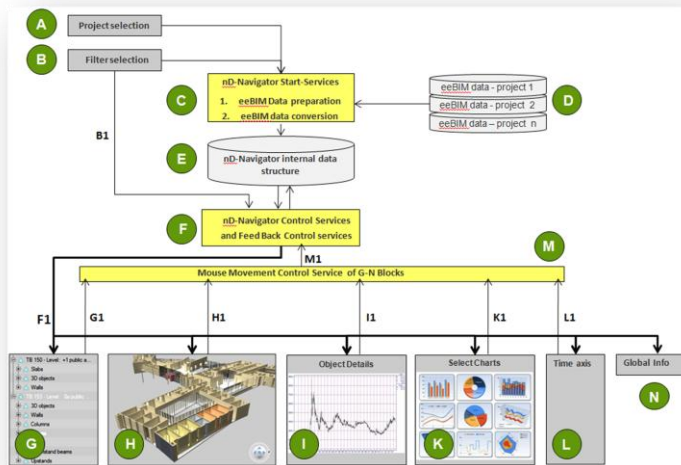


FIGURE: overall Architecture of the nD-Navigator

Module	Action Description	Reaction
G Object Explorer	Open or close hierarchy	1. The hierarchy of 2. no reaction on o
	Activation of sub-hierarchies o object	1. G: the subfolde 2. H: the c correspo 3. I: hierarchy of 4. K: the current 5. L: no reaction 6. N: no reaction
H Animation Window	Hide/unhide • sub-hierarchies • several objects • object types • or elements with special criteria like first floor or all elements except rooms	1. G: the subfolde 2. H: the c correspo 3. I: in case of its 4. K: the current 5. L: no reaction 6. N: no reaction
	transparency to not activated objects • sub-hierarchies • several objects • object types • or elements with special criteria like first floor or	1. H: not act throu 2. no reaction on
I Object property display	There are several possible actions in the Object Property dialog: View Object in selected colour Show corresponding data-	1. H: selected obj 2. no reaction on o 1. I: all relevant Property di

FIGURE: overview of the nD-Navigator Components description listed in **part two**.

TAGS:

Energy-efficient building management, eeBIM, nD-Navigator, Process and model integration, public-private-partnership (PPP) projects, life-cycle, IDM, BIM, openBIM, IFC

HESMOS is a 36-month project that started in September 2010 and comprises a Consortium of one university and five industry partners.

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