

## 2003: Burgholz Tunnel designed with TILOS Time-Distance Diagrams

At the end of 2001 the Baresel AG Stuttgart, NL Tunnelbau and the G. Hinteregger & Söhne Baugesellschaft m.b.H., Salzburg were awarded the contract by the regional Straßenbau Nordrhein-Westfalen to construct the L418 – Burgholz Tunnel that had been planned since the mid-1960s. The Burgholz Tunnel J.V. under the technical management of the Baresel AG began work on July 7, 2002. Work on the northern tube of the two tunnel drives that are to be excavated by mining means was started on in July 2002.

To plan the Burgholz tunnel, the Baresel AG applied TILOS by Linear projects GmbH. The Time-Distance diagram is divided into columns and lines. Each field in the table can be occupied by a planning area, path and time axis, diagrams, free drawing fields or marking field with logo.



The planning field displays the project process with the phases. Forms of presentation such as lines, triangles or parallelograms are available for this purpose. Scheduling and control are undertaken via network planning technology.

Furthermore each phase can be provided with data such as quantities and resources with performance values and stored in libraries.

On the basis of these data and by feeding in the path segment the algorithm contained in TILOS works out the duration of a phase in conjunction with the performance parameters that are provided.

To the right and left of the planning field the construction engineers set up the West and East portal phases such as construction site installation, earth and road works etc. and important contractual data as milestones.

Layer technology was applied to obtain an overview of the planning stages. The first Layer contains the official proposal put forward by the Regional Office for Highway Construction in North Rhine Westphalia. It relates to all phases such as driving the crown, bench, and cross-passages, the permanent lining, drainage/carriageway superstructure etc. that are coded in grey in different line presentations.

The phases planned by the JV as well as current phases are contained in another layer in the same line presentation – in red for the northern tube and blue for the southern one.



The Time-Distance diagram in TILOS lucidly displays the dependencies of the phases to one another and how they relate to assessing the number of kilometers involved.

The construction management enters the current level reached in the plan at regular intervals. Earlier levels can be faded in and compared with the current ones whenever desired.

Specialists enter changes and up-dates into the plan in a fast and straight-forward manner. In this way, it is possible to obtain an insight of the current situation as well as a documentation of the process at any time.

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More Information about TILOS, Project Management-  
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