

TimeChainage

# Project Management software for planning, tracking progress and presentation in time chainage format

#### Introduction

Peter Milton Planning is pleased to announce the release of **TimeChainage version 8.6**, the project management software package based on the time chainage chart.

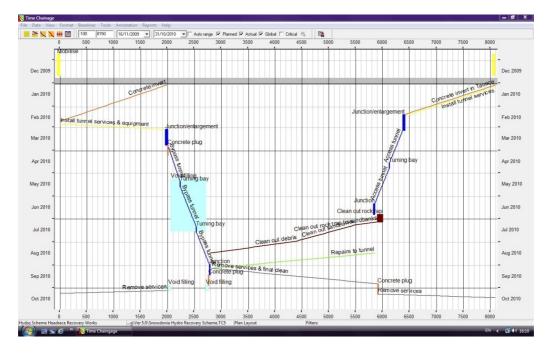
**TimeChainage** is used for planning, tracking progress and graphically displaying construction projects in a time chainage or line of balance format. Time chainage charts are ideal for projects of a linear or repetitive nature.

#### Examples include:

- Roads
- Rail
- Tunnels
- Cabling
- Pipelines
- Transmission lines

It can be used on its own or as a complement to traditional bar chart style planning packages.

Time Chainage is a full planning package with many useful features not found elsewhere.



## Planning

Typical screen view

Unlike bar chart style project management software, **TimeChainage** will calculate the duration of activities based on length and progress rates. The user inputs start and finish locations, progress rate, logic links and any start constraints, **TimeChainage** will then calculate start and finish dates and duration. Non-work time such as weekends and holidays are accounted for with user-defined calendars. Rapid planning and presentation of projects is thus made possible.

# Activities can be grouped into a user defined Work Breakdown Structure (WBS) which provides a logical and convenient way to organise and display your project. This concept also provides flexibility so you can plan the way you want to. For example, multiple projects or sectional "plans" can be created to provide "What if" scenarios and the filtering and layout options allow many different ways of showing this information.

In addition to the WBS, you can allocate Activity Codes to planned and actual tasks to provide further options to organise and display your project. User defined colours and thicknesses can be applied to each planned activity based on its Activity Code value, you can also create filters using the Activity Code values.

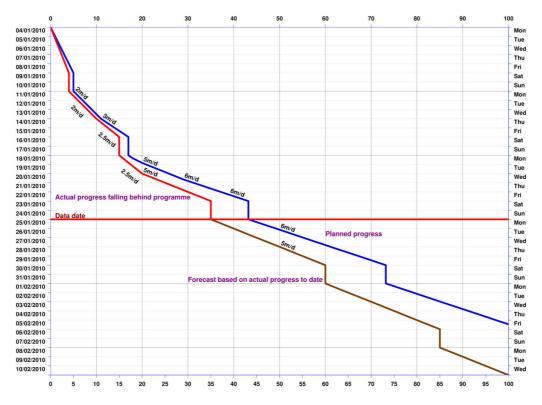
With its full critical path analysis, **TimeChainage** can be used for all your planning requirements or in conjunction with bar chart applications as a complementary tool.

#### **Progress Tracking**

Time chainage charts are an excellent way to track progress. You can instantly see not only whether an activity is ahead or behind schedule and by how much, but also whether you are gaining or losing ground on the original plan. Actual progress can be plotted alongside the planned programme and actual 'rates' of production can be compared visually with planned rates. **TimeChainage** allows progress to be added in any time periods you wish, from one day upwards.

As time chainage charts are two dimensional, they show more information than a bar chart (which is really one dimensional). Relative progress rates can be easily compared, problem areas where two tasks are in the same place at the same time are easily identified and completion dates can be forecast rapidly based on actual progress to date.

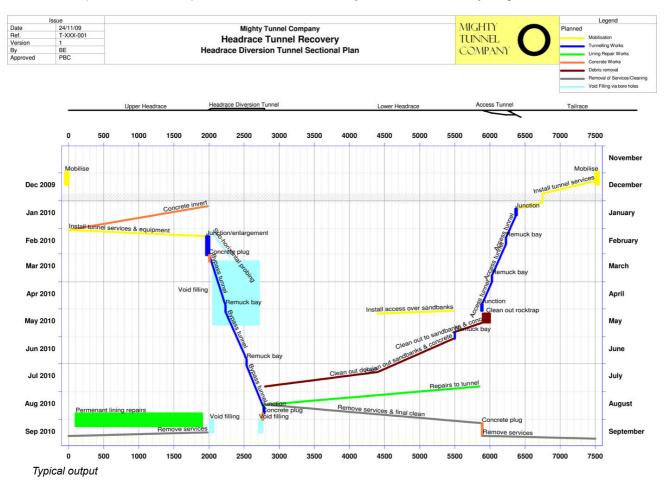
**TimeChainage** keeps the full history of actual progress along with your original plan (or plans) in a single data file. Planned and actual progress information are kept independent of each other for maximum flexibility and can be exported quickly to a spreadsheet for further analysis if required.



Example of actual progress (and forecast) compared with original plan

### Presentation

For projects of a linear/repetitive nature, the time chainage chart provides a clearer more easily understood picture of the plan than a bar chart because it has a more graphical structure. The two dimensional format (time and distance), allows progress rates to be shown (seen by the slope of the activity lines) and these can be compared with different tasks or between planned and actual. In addition, you can see where, as well as when, activities take place; this allows potential clashes to be easily identified at an early stage.



Very complex projects can be displayed on a single chart and still provide a clear picture of what is going on. Charts can be zoomed in or out to show specific areas of interest and filtered to show only specific work elements. A great advantage of **TimeChainage** is that it shows true progress rates on the chart by taking full account of weekends, holidays and any other non-work periods.

Activities are shown as lines, bars or hatched boxes and in any colour supported by your computer. Annotation can be added to the chart, and several options for adding text are available. Holiday periods can be shown. A time now line with user defined text can be shown. Date and Chainage Milestones can be added to highlight specific events or locations. Various header options are available, including Title box, Issue/Revision box, Legend box and you can even include your company logo. To enhance the looks of a chart, a background image or colour can be selected, the chart size and shape can be modified and the axes and grids have comprehensive formatting options.

A schematic of the project can be shown above the chart. A tool for creating schematics is included in **TimeChainage**; alternatively an existing image (say a photograph or CAD drawing) can be imported and accurately positioned relative to the chart.

Multiple chart layouts can be saved. This gives you the ability to quickly change between say a print layout and a screen view layout, or between an overall view and a zoomed view, or between several different filtered views.

A time chainage chart can be a very convincing tool to help explain a plan, or progress to the Project Manager or Client. And when changes are required, as they will be, these can be easily and quickly incorporated and shown against the original plan to highlight where the differences are and what the impact is.

#### **Main Features**

Time Chainage has the following features:

- A user interface that is simple and quick to navigate around
- Spreadsheet style data input tables
- Separate tables for planned and actual progress to allow maximum flexibility in data input
- WBS for filtering, sorting and defining default calendars, line colours, thickness etc
- Activity Codes for further filtering, sorting and organising which includes line formatting
- Planned activities with logic linking and start constraints. Entered details include start and finish chainages and progress rates. Dates and durations are automatically calculated
- Critical Path Method
- Actual progress entered in separate table. Entered details include period start and finish dates and chainages. Any time periods from one day upwards allowable and full as-built history is kept
- Multiple baselines can be created and saved with the project
- Multiple user defined calendars
- User defined schematic can be created and shown above the chart, or a pre-defined image can be imported
- Comprehensive set of chart formatting options
- Multiple user defined filters
- Quick filters for planned and actual tasks and critical path
- Tasks can be shown as lines, bars, or hatched boxes
- Multiple layouts can be defined and saved
- Easy zooming for date and chainage range
- Adjustable screen display chart size
- Local and Global chainage datums for easier data input and more flexible charts
- Chainage and date milestones to show specific locations and events
- Data date line and text
- Chart annotation with many options available
- Time and Chainage direction convention options
- Learning curve creator tool
- Easter Sunday calculator
- Export to and import from Windows Clipboard in Excel format
- Project analysis and graphical reports (data can be exported to Excel for further analysis)
- Chart can be saved as a graphic file for insertion into other documents such as Word, Excel etc.
- Use Primavera P6 (or other planning applications) to generate time chainage charts

#### The History of TimeChainage

Peter Milton has worked in the construction industry for over 40 years and has considerable planning experience. Over the years he has often had the need to produce time chainage charts. Prior to computers, this was undertaken with graph paper and pencil. When computers arrived, CAD packages and spreadsheet applications were used to good effect. While all these methods are capable of producing time chainage charts, they all suffer the twin drawbacks of being very labour intensive and error prone. There was a need for a dedicated time chainage software package. Looking at the existing market, Peter was unable to find anything that fulfilled his requirements for planning, tracking and presentation, so he decided to write the software himself.

#### TimeChainage was the result.

Version one of the software was rolled out in early 2000 and has steadily evolved with new features being added with each new release. **TimeChainage** has been used with great success on a number of major construction projects, both in this country and abroad.

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