

Spider Project



www.spiderproject.ro

Spider Project History

- Spider Project - professional project management software package with unparalleled functionality.
- The first version of the package was launched in 1992 and since then it has a long history of development and improvement.

Spider Project Application Areas

- Now Spider Project is the most popular professional PM software in Russia and has customers in 25 other countries.
- Today it is used in:
Aerospace & Defense, Agriculture, Banking, Construction, Consulting, Energy, Engineering, Shipbuilding, Metallurgy, Oil & Gas, Retail, Software Development, Telecommunications, Utilities, and many other areas.

Spider Project customers

large scale projects

- Today Spider Project is used in many large scale projects and programs like:
 - Winter Olympic Games 2014 preparation,
 - The program of Russian Far East development,
 - Development of Bovanenkovo Gas Field,
 - Urucu-Manaus Pipeline Construction (Brazil),
 - Development of Telecommunication Infrastructure Program, Next Generation Network (Romania)
 - Construction of Moscow 4th Ring Highway,
 - Construction of Trans-Siberian highways (Kolyma, Amur, etc.).

Spider Project Advantages

- Spider Project wins competition with other PM software due to wider functionality and better solutions for the same projects and programs.
- Spider Project users can create project computer models that adequately simulate real processes and support any management approaches (Critical Path, Critical Chain, Risk Simulation and Management, Project Portfolio Management, etc.).

Introduction

- In this presentation we will describe the major differences between Spider Project and other PM software.
- Many management functions and approaches realized in Spider Project have no analogues to compare with.

Data

- For understanding Spider Project functional capabilities it is necessary to learn what initial information can be entered and used for project/program/portfolio computer modeling.

Power

- Unlimited number of activities, resources, dependencies, calendars, etc.
- Unlimited number of project, program and portfolio WBS and OBS.
- Unlimited number of hierarchical levels in any structure.
- Unlimited number of cost components and currencies.
- Unlimited number of Cost, Resource and Material Centers.

Cost, Resource and Material Centers

- Cost Center in Spider Project is the sum of selected cost components calculated across the user defined group of resources and materials. Spider Project users can apply Earned Value Analysis not only to overall cost, but also to Cost components, Materials and Cost Centers.
- Cost Centers may be used for management of several parallel project budgets.
- Has no analogues in other PM software

Work Volumes and Resource Productivity

- Usage of work volume (quantity of work to be done) and resource productivity for activity duration calculations.
- In most packages activity duration is the initial information for project computer simulation. Spider Project users can define activity duration or activity work volume. In the later case SP users shall also define assigned resource productivities for activity duration calculations.
- Has no analogues in other PM software

Corporate Norms

- This feature permits to use corporate norms in the process of project planning. Most norms are applied to work volume unit (like material requirements per volume unit, unit costs), or to production rates (or resource productivities).
- Spider Project allows to create and to use corporate reference-books that contain corporate norms. These reference-books can be linked with the projects and used for calculation of activity, resource and assignment parameters.
- *Has no analogues in other PM software*

Income, Material Production and Supplies

- Spider Project simulates not only cost and material consumption but also financing, production and supplies.
- Spider Project leveling algorithms calculate resource constrained schedules taking into account not only resource but also financial and supply limitations. These limitations can be applied not only to the total cost but also to any cost and material component or center.
- Has no analogues in other PM software

Resource Production

- Resources can be spent or produced on project activities.
- It permits to simulate resource mobilization processes, resource transfer from one place to another, etc.
- Has no analogues in other PM software

Multi-resources

- Capability to create multi-resources (predefined crews of resources) and to assign them to activities.
- At any time in the course of project execution it is possible to change the set of resources belonging to some multi-resource and this change will be applied to all future multi-resource assignments.
- This feature is very useful for the *what if* analysis and project resource pool optimization.
- Has no analogues in other PM software

Independent Resource Teams

- Spider Project users can assign to activities resource teams that work together but independently of other assigned teams.
- Assigning several resource teams simulates the situation when activity can be performed by any of them or as the result of joint efforts that may take place at different time periods.
- Has no analogues in other PM software

Shift Work Simulation

- Resource teams allow simulation of working in shifts. If several shifts (independent resource teams) are assigned to an activity then its work volume (or duration) will be shared among these teams according to specified constraints (calendars, availability of resources, productivity of resources, costs, priorities).
- Has no analogues in other PM software

Volume lags

- Spider Project users can apply time or volume lags to activity dependencies.
- Volume lag defines the volume (or percent) of preceding activity work quantity to be done before the succeeding event could occur.
- Has no analogues in other PM software

Assignment Cost

- Spider Project users can define not only resource, material and activity costs, but also resource assignment costs. Assignment costs are necessary for control of resource usage costs when they are paid fixed price or for the quantity of work done.
- Has no analogues in other PM software

Partial Resource Assignments

- Spider Project is the only PM package that correctly simulates partial resource assignments. Unlike other PM packages Spider Project takes into account both the number of assigned resources and the planned percentage of their working time that should be spent on activity execution.
- You can not distinguish between two resources assigned for 50% of their working time and one assigned for 100% if to define only total percentage as other packages do.
- **Has no analogues in other PM software**

Variable Resource Workloads

- Spider Project users can define the minimum and maximum number and workload of assigned resources and let the package to adjust resource assignments in search for the best schedule. The number and workloads of assigned resources can vary during the time of activity execution. Activity duration can be fixed or be adjusted together with the number and workload of assigned resources.
- Has no analogues in other PM software

Material assignments

- Material consumption could be assigned not only to activities, but also to an hour of resource work and to an hour or work unit of resource assignments.
- Example: the car consumes gas.
- Has no analogues in other PM software

Advanced Skill Scheduling

- Spider Project users can create resource Skill sets - groups of resources that can perform the same activity types (maybe with different cost and productivity). If resource skill is assigned Spider Project selects which resources to use according to their availability and required number of assigned resources or their total productivity.
- This feature can save a fortune to Spider Project users.
- **Has no analogues in other PM software**

Typical Fragments

- Spider Project users can create, store and incorporate into projects typical project fragments.
- Usually project fragment is the computer model of the typical project work package.
- In the process of fragment incorporation activity volumes, duration and material requirements can be adjusted to the user defined ratio.
- Has no analogues in other PM software

Functionality

A spider is positioned on a web in the center of the image. The background is a soft, misty landscape with silhouettes of trees and hills. The overall tone is light and ethereal.

Resource Constrained Schedule Optimization

- Spider Project optimizes project resource-constrained schedules taking into account resource, material and financial limitations.
- Spider Project leveling capabilities also include simulation of complex resource assignments like skills, partial and variable resource workloads, independent teams, etc.
- Spider Project resource constrained schedules usually are shorter than the schedules created for the same projects by other PM packages.
- Has no analogues in other PM software

Schedule stability

- The major problem of most PM packages - instability of resource constrained schedules. Changing initial information (for example - entering actual data) users can get schedules with different order of planned activity execution. In the middle of the project execution it could become a serious problem. That is why Spider Project includes leveling option "Previous version support". If this option is selected Spider Project calculates project resource-constrained schedule keeping the order of activity execution in the selected archived schedule.
- *Has no analogues in other PM software*

Project Archives

- Maintaining project archives. Any number of project versions. Capability to compare any two versions with each other. Unlimited number of baselines. Unlimited *what if* scenarios.
- This feature permits to estimate not only project status but also project trends, to estimate project performance for any period.
- Has no analogues in other PM software

Risk Analysis

- Spider Project employs unusual methods of risk analysis. SP users simulate uncertainties and risk events creating optimistic, most probable and pessimistic scenarios of project execution.
- Spider Project calculates target dates, material consumption and costs that can be achieved with the user defined probabilities.
- Has no analogues in other PM software

Success Probability Analysis

- Defining Project target data (dates, costs, material requirements) SP users acquire information on probability of their successful achieving and contingency reserves that exist on any of project activities.
- During project execution SP users control current success probabilities. Success Probabilities trends are the best tools for analyzing project performance.
- Has no analogues in other PM software

Earned Value Analysis

- Spider Project not only calculates current Earned Value parameters but also keeps project history and provides project managers with their historical trends and forecasts.
- SP users can apply Earned Value Analysis not only to the total project cost but also to any cost component, cost center, material and material center.
- Has no analogues in other PM software

Trend Analysis

- Spider Project keeps project history and can restore trends of any project parameter like expected project cost, expected project finish date, etc.
- Trend reports supply project managers with necessary data for discovering problems ASAP, before negative tendencies create real and obvious problems.
- Has no analogues in other PM software

Project Performance Measurement

- Project performance measurement system implemented in Spider Project monitors not only time but also volumes of work that had been done, materials consumed, and money spent.
- Spider Project users can get the reports on project execution for any user defined period of time.
- Has no analogues in other PM software

Group Work in Spider Project

- Spider Project supports portfolio management and the group work though in an unusual way.
- At any moment project planner can send subprojects (database replication) to the specified folders or FTP sites of responsible managers and update project data by the current subproject information.
- Managers of the different subprojects can work separately without direct link with the project or portfolio database.
- *Has no analogues in other PM software*

Reports

Spider Project Reports

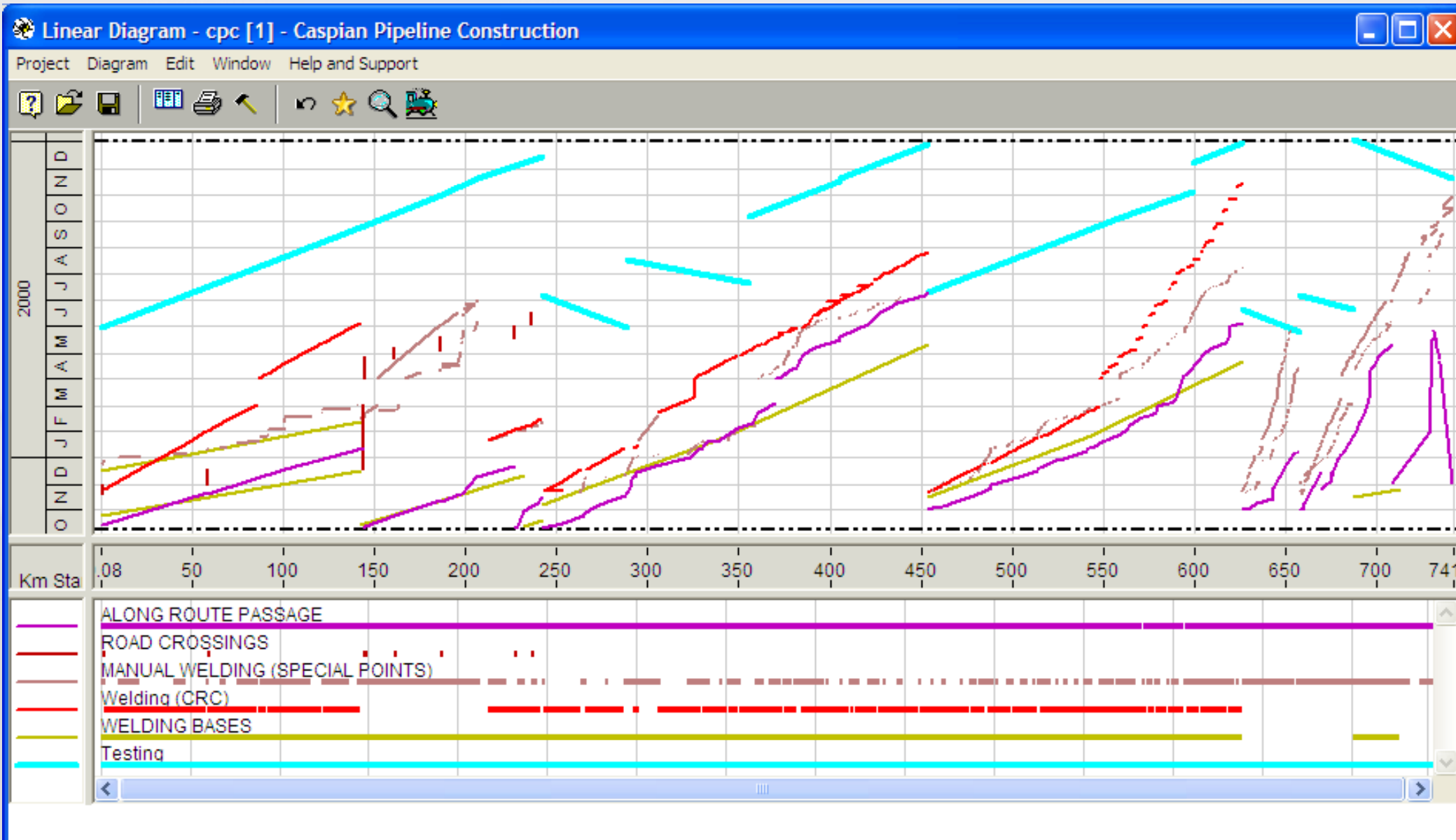
Spider Project graphical reports include:

- Activity Gantt Charts,
- Resource Gantt Charts,
- WBS and OBS Charts,
- Network Diagrams,
- Resource Workload Histograms,
- Cost and Material Histograms and S-curves,
- Earned Value Graphs and Trends,
- Time-Location Charts (with animation of the project execution),
- Success Probability Trends,
- Trends of any project parameter.

Spider Project Time-Location Diagram

- Time-Location Diagram is the graphical presentation of the project schedule that allows to show complex project schedule on one A4 (or Letter) sheet of paper as a set of graphs.
- X-axis shows project metrics, Y-axis - time.
- Each graph shows when activities of certain types will be performed for any point of the project metrics.

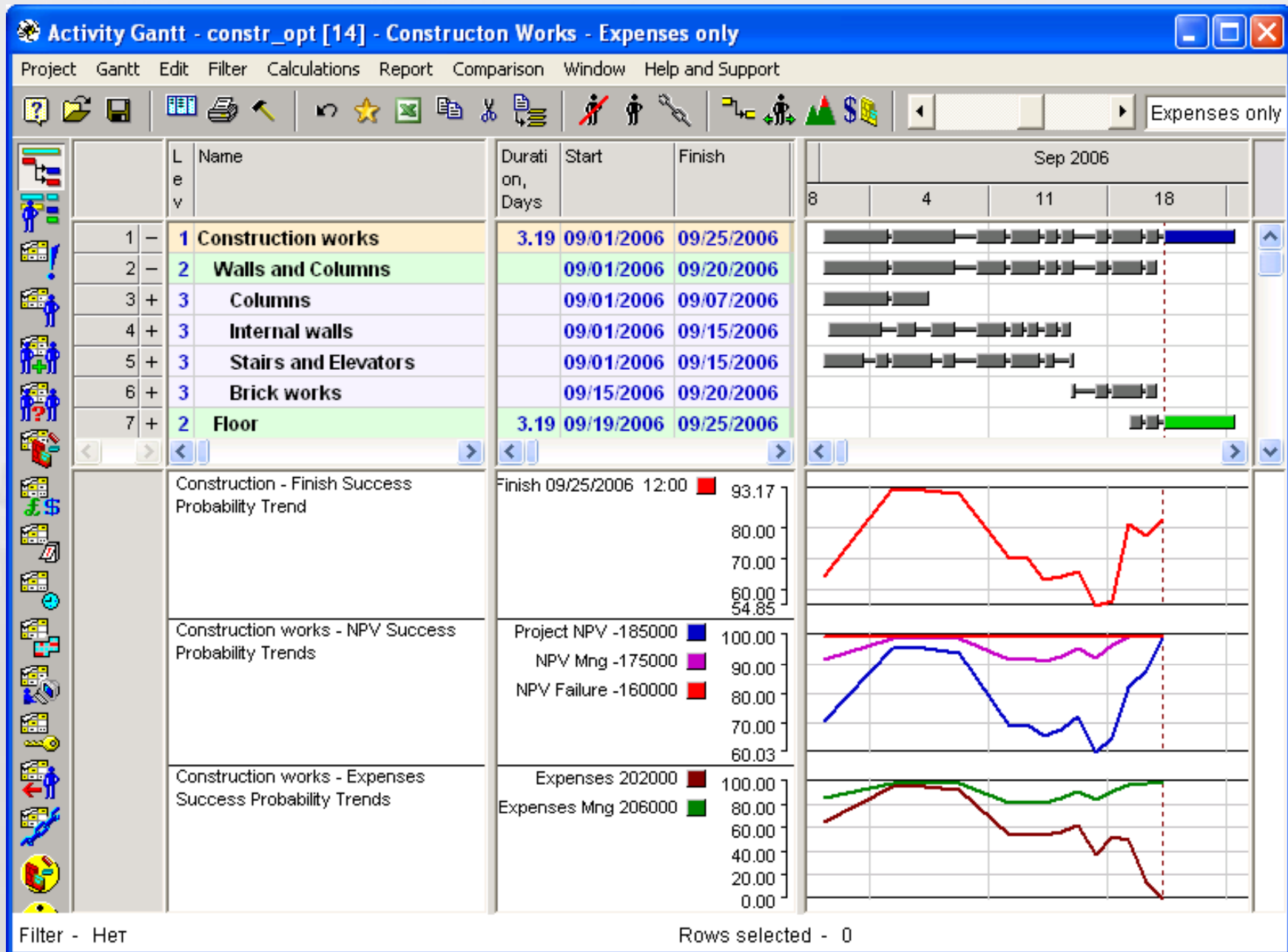
Spider Project Time-Location Diagram



Success Probability Trends

- The trends of success probabilities (probabilities to meet project targets) supplies project manager with the information that is very helpful for making decisions on necessary corrective actions.

Success Probability Trends



My taste is very simple!

**I am always
satisfied
with the best!**