

Education in Project Controls



Primaned Academy

Course Catalogue 2021



Project Controls

The Primaned Academy educates in Project Controls. Project Controls is a relatively new field, and is experiencing rapid growth internationally. Organisations are increasingly structuring themselves as project-based matrix organisations. The proper training of staff is an essential component to manage these projects.

“Project Controls is the part of project management that captures, models, monitors, analyses and visualises project data to generate insight into the project that results in improved decision making so that maximum value is created for the stakeholders.”



Integrated approach

The challenge of Project Controls lies in the relationships between the various knowledge areas within the field. For example, a change of scope is a change that potentially affects the schedule, resource allocation, communication plan, risk register and budget.

These interrelationships are taken into account with the development of our education programme, with the project planning playing the leading role. Thanks to the integrated approach, participants don't just learn the theory and tooling, but can also immediately apply these in managing their project portfolio.

This course catalogue

The Project Controls training programme can be followed as a complete education in Project Controls. It is also possible to register for individual training courses, depending on your needs. All our courses focus on the competences required for a Project Controls Professional. The courses have been developed by academics in partnership with our own practically-oriented Project Controls Consultants and Engineers. This has allowed us to develop practical, theory-supported, pragmatic training courses.

Do you have any questions about the content of our courses, or do you have a specific learning request? Please don't hesitate to contact us for personal advice.

Stefan Hollak PhD
Academy Manager

Project Controls education programme

The Project Controls education programme takes place several times throughout the year, and educates you to become a Project Controls Engineer in three steps. The course is structured in such a way that the modules connect well with one another, and that participants attain the knowledge necessary to effectively master the profession. It is also possible to register for individual training courses of the programme.

Foundation

Principles of Project Controls
Setting up an effective WBS
Network scheduling

Step 1: Learn the basic principles of Project Controls

It is important to develop a solid understanding of the basics of the profession, the Foundation. What is Project Controls and why is the integrated approach important? How do you prepare an effective Work Breakdown Structure? Participants subsequently learn the basics of network scheduling, the critical path method and Scheduling Best Practices.

Tooling

Oracle Primavera P6 Professional
and/or
Microsoft Project

Step 2: Choose your planning tool

The most effective tools for planning projects are Oracle Primavera P6 Professional and Microsoft Project. In the second step of the programme, the Tooling, you learn how to master project planning in the chosen planning tool, which includes learning how to apply Scheduling Best Practices in the tool.

Step 3: Specialise to become a professional

The third step in the Project Controls training programme consists of four specialisations, in which participants develop their in-depth knowledge. However, the Primaned Academy also offers the flexibility to design your own course programme by selecting specific training modules.

In the Risk specialisations, participants learn how to integrate project risks into the planning. The Cost specialisations focuses on the integration of planning and costs, with a major role for the Earned Value Management reporting and management method.

The Information specialisations covers preparing an integrated schedule, the relationship between different stakeholders, and setting up effective means of communication in your projects and organisation.

In the Claim specialisations, you learn how to deal with changes to the project and how claims can be calculated using Delay Analysis Techniques.

Risk

Project Risk Management
Schedule Risk Analysis

Cost

Project Cost Planning & Control
Earned Value Management

Information

Integral Planning Management
Effective Communication

Claim

Change Control & Claim Analysis

Principles of Project Controls

What does Project Controls mean? What is the relationship between Project Controls and project management? What are the benefits of Project Controls for a project organisation? Which conditions are essential for a project organisation for the effective implementation of Project Controls? These questions are key in the Principles of Project Controls training module, the ideal start to your education in Project Controls.

Classroom



0.5 day



Subjects

- Challenges of the Project Controls profession
- Definitions and terms of Project Controls
- Baseline and update cycle
- Areas of expertise of Project Controls
- Project Controls techniques
- Reporting and influencing



Requirements

No specific prior knowledge is required for this training module. We advise you to follow this course in combination with *"The Art of setting up the WBS"*.



Certificate

After completing this training module you will receive a Primaned Academy certificate.



Part of the Project Controls education programme

This training module is part of the *Foundation*. This course can also be completed separately. See www.primanedacademy.com for the options or contact us.

The Art of Setting up the WBS

The Work Breakdown Structure (WBS) forms the backbone of an integrated schedule. How do you set up an effective WBS? Should you choose a product-oriented or action-oriented WBS? In this module, the most important theoretical background of setting up a WBS is discussed, after which participants themselves get to work translating a schedule of requirements into an adequate and effective Work Breakdown Structure.

Classroom 

0.5 day 

Subjects

- Using a PBS and/or WBS
- Setting up an effective WBS
- Work-oriented vs. product-oriented WBS
- Preparing work packages



Requirements

Although no specific prior knowledge is required, we recommend completing this course in combination with “*Principles of Project Controls*” (which are planned together on 1 day).



Certificate

After completing this training module you will receive a Primaned Academy certificate.



Part of the Project Controls education programme

This training module is part of the *Foundation*. This course can also be completed separately. See www.primanedacademy.com for the options or contact us.

Critical Path Method & Scheduling Best Practices

In a network schedule, you show the relations between the various activities in your project. In this module, you learn to understand the various types of activities and relations, and to use smart relations to set up an effective network schedule. You also learn to master the calculation method used to calculate the critical path (Critical Path Method) and floats. Milestones, constraints, lags and other network scheduling terms are covered. This module prepares you to use planning software in accordance with the best practices of network scheduling.

Classroom 

1 day 

Subjects

- The various network relationships
- Calculation method for network scheduling
- Scheduling, floats and critical path
- Types of activities
- Resources and levelling
- Best Practice network scheduling and progress cycle



Requirements

No specific prior knowledge is required for this training module.



Certificate

After completing this training module you will receive a Primaned Academy certificate.



Part of the Project Controls education programme

This training module is part of the *Foundation*. This course can also be followed separately. See www.primanedacademy.com for the options or contact us.

Project Cost Planning & Control

How do you progress from a cost estimate to a budget for your project? How do you manage the costs of your work packages based on a Cost Breakdown Structure and Control (Cost) Accounts? What can you do with Cash Flow statistics? These questions are answered in the Project Cost Planning & Control module. Attention is also devoted to the basic financial knowledge required for Cost Control in an integrated schedule. The Earned Value Management module connects well with this module.

Classroom 

1 day 

Subjects

- Cost Breakdown Structure and Control Accounts
- Basic financial knowledge relevant for Cost Control
- Cost estimates
- Budgeting
- Cash Flow
- Cost Control (control and follow-up)



Requirements

This training module can be completed without specific prior knowledge. A general background in project controls (*the Foundation*) and experience with a planning tool are recommended.



Certificate

After completing this training module you will receive a Primaned Academy certificate.





Part of the Project Controls education programme

This training module is part of the *Cost* specialisation. This course can also be followed separately. See www.primanedacademy.com for the options or contact us.

Earned Value Management

The Earned Value Management (EVM) method is a powerful way of understanding the actual progress within projects. It is a standard international method, which combines time planning with costs. Using this method, you can assess both the financial health and the progress of the project in a transparent manner. Did you know that EVM can also be used effectively without using costs in your planning? This module discusses the definitions, calculation methods and Best Practice reports of EVM. This module connects well with the training module *Project Cost Planning & Control*.

Classroom 
1 day 

Subjects

- Benefits and motivations of EVM
- EVM definitions (planned value, actual costs, earned value etc.)
- EVM calculations and diagrams
- Learning to interpret and use EVM indices (CPI, SPI)
- Using EVM to predict further project progress
- Organisational processes necessary for EVM



Requirements

No specific prior knowledge is required for this training module. A general background in project controls (*the Foundation*) and experience with a planning tool are recommended. This module connects well with the Project Cost Planning & Control.



Certificate

After completing this training module you will receive a Primaned Academy certificate.





Part of the Project Controls education programme

This training module is part of the *Cost* specialisation. This course can also be completed separately. See www.primanedacademy.com for the options or contact us.

Project Risk Management

All projects involve risks. It is important not just to respond adequately to unexpected events, but also to identify risks and to mitigate them if possible. In this module, you learn the requirements of a good risk register. Which role should you adopt within a project team, and how do you know which questions to ask? How can you transform a risk register into a risk matrix, to further prioritise the risks? You also learn the benefits and requirements of carrying out a probabilistic, quantitative risk analysis.

Classroom 
1 day 

Subjects

- Benefits of using project risk management
- Preparing a risk matrix and risk register
- The terms risk scoring and risk behaviour
- Quantitative risk analysis
- The benefits of probabilistic planning
- Prioritising and mitigating



Requirements

This training module can be followed without specific prior knowledge. A general background in project controls (*the Foundation*) and experience with a planning tool are recommended.



Certificate

After completing this training module you will receive a Primaned Academy certificate.




Part of the Project Controls education programme

This training module is part of the *Risk* specialisation. This course can also be completed separately. See www.primanedacademy.com for the options or contact us.

Schedule Risk Analysis

Clients and projects increasingly require a quantitative risk analysis. In this module, you learn to understand all aspects of probabilistic planning in the Primavera Risk Analysis (PRA) software package, based on practically-oriented examples and cases. As well as importing and checking a schedule, you add uncertainties and risks to the schedule. You learn to interpret the outcomes of the risk analysis and to communicate these to a project team in the correct manner using distribution diagrams, tornado diagrams and scatter plots etc. Other subjects covered include calculating buffers, scenario analyses and weather calendars. This module closely connects with the PPI (Project Planning Infrastructure) method used by Rijkswaterstaat (Dutch).

Classroom 

2 days 

Subjects

- Importing the schedule and carrying out a schedule check
- Adding uncertainties
- Preparing and/or importing a risk register
- Reporting with distribution, tornado and scatter plot diagrams
- Probabilistic cash flows
- Modelling weather-related losses
- Pre-mitigation and post-mitigation schedules and other reporting options



Requirements

This training module requires a good basic knowledge of Oracle Primavera P6 Professional or Microsoft Project (*the Tooling*). This module connects well with the Project Risk Management course.



Certificate

After completing this training module you will receive a Primaned Academy certificate.



Part of the Project Controls education programme

This training module is part of the *Risk* specialisation. This course can also be followed separately. See www.primanedacademy.com for the options or contact us.



Software version

Primavera Risk Analysis 8.7 is used in this training module.

Integral Planning Management

Projects involve various stakeholders, both internal and external, e.g. contractors, subcontractors and clients. In addition, a project may involve multiple departments, for example engineering, purchasing and construction. How do you work together at all these different levels, and how do you arrive at an integrated schedule? This module also covers the various interfaces between these different domains.

Classroom 

1 day 

Subjects

- Strategic design of a schedule
- Organisation of the schedule and planning department
- Integrated and integral planning
- Managing interfaces
- Managing the implementation
- Schedule Control and reporting



Requirements

This module can be completed separately without specific prior knowledge. A general background in project controls (*the Foundation*) and experience with a planning tool are recommended.



Certificate

After completing this training module you will receive a Primaned Academy certificate.



Part of the Project Controls education programme

This training module is part of the *Information* specialisation. Want to follow this course separately? See www.primanedacademy.com for the options or contact us.

Effective Communication in Project Controls

During this training module, we learn you how to develop effective (project) communication within your project organisation in 6 steps. This includes profiling your stakeholders, defining communication activities, and setting up effective KPIs, reports and dashboards. You also learn how communication styles have influence on what information is passed on and absorbed. Lastly, we discuss how the organisational structure and project governance supports effective communication.

Classroom 

1 day 

Subjects

- Communication within project organisation structures
- The principles of good project governance
- Stakeholder management and profiling
- Choosing the right communication goals and means
- Preparing a communication plan and communication baseline
- Setting up KPIs, reports and dashboards
- Using communication models and styles



Requirements

No specific prior knowledge is required for this training module. A general background in project controls (*the Foundation*) and experience with a planning tool are recommended.



Certificate

After completing this training module you will receive a Primaned Academy certificate.



Part of the Project Controls education programme

This training module is part of the *Information* specialisation. This course can also be followed separately. See www.primanedacademy.com for the options or contact us.

Change Control & Claim Analysis

One thing is certain when a project starts: not everything will go according to plan. Changes will always arise. These may be changes to the schedule, to the baseline, the contract, or even to the original business plan. How do you deal with these changes, and how do you make sure you stay in control? How do you determine whether a delay or change will lead to a claim? And how big will that claim be? How do you ensure that a claim does not lead to a conflict between, for example, the contractor and the client, and how do you ensure you are in a strong position if a conflict arises? These key questions are covered in this module.

Classroom 

1 day 

Subjects

- Identifying issues and changes
- Contract and Baseline
- Project administration
- Change Control
- Claim Management
- Applying delay analysis techniques



Requirements

This course can be followed separately without specific prior knowledge. A general background in project controls (*the Foundation*) and experience with a planning tool are recommended.



Certificate

After completing this training module you will receive a Primaned Academy certificate.



Part of the Project Controls education programme

This training module is part of the *Claim* specialisation. This course can also be followed separately. See www.primanedacademy.com for the options or contact us.

Oracle Primavera P6 Professional

Primaned has decades of experience in implementing and training in the use of Primavera. This module has been developed in partnership with our planners and technical consultants. Good planning is much more than just “drawing bars”. In this training module you learn how to use the software effectively and also learn what a planner needs to prepare a good schedule. Based on a case study, which is closely linked to the manual we have developed, you learn to create and control a project yourself. This includes activities, relations, scheduling, resources and progress.

Classroom 

4 days 

Subjects

- Creating an Enterprise Project Structure and Work Breakdown Structure
- Creating activities and relations
- Scheduling
- Calenders and constraints
- Activity and project codes
- Filters and layouts
- Roles, Resources and Levelling
- Costs
- Baselines
- Update and analyse progress



Requirements

No specific prior knowledge is required for this training module. A general background in project controls and network scheduling (*the Foundation*) is recommended.



Certificate

After completing this training module you will receive a Primaned Academy certificate.



Part of the Project Controls education programme

This training module may be followed separately or as part of the Project Controls education programme.



Software version

Oracle Primavera P6 Professional R.20.12.3 is used in this course. This module is also suitable for newer releases and older versions from 8.X.

Oracle Primavera P6 Professional - Expert

You have used Oracle Primavera P6 Professional for some time, and your basic knowledge includes preparing a dynamic network schedule with activities and relationships. But what do all the different activity and duration types mean? How can I generate Earned Value S-curves based on the project progress? This module goes in-depth, while taking account of the Best Practices of Project Controls. Primaned has more than 30 years' experience in implementing and training in Primavera, and this module is based on those years of practical experience. In this two-day module, there is also time for any specific questions you may have, and you can learn optimally from the tutor's practical experience and expertise.

Classroom 

2 day 

Subjects

- Managing inter-project relationships
- Multiple float path analyse
- Scheduling options
- Activity, duration and resource types
- Resource levelling and resource analysis
- Combining global changes & UDFs
- Physical progress & steps
- Thresholds & issues
- Tabular reporting
- Import/Export files
- Earned Value S-curves
- Updating baselines
- Progress methods



Requirements

This training module requires a good basic knowledge of Oracle Primavera P6 Professional as well as (at least 6 months') practical experience with this software.



Certificate

After completing this training module you will receive a Primaned Academy certificate.



Software version

Oracle Primavera P6 Professional R.20.12.3 is used in this course. This module is also suitable for newer releases and older versions from 8.X.

Oracle Primavera P6 EPPM Functional Admin

Primavera P6 is a very extensive and often business-critical application. The functional application admins of the Primavera P6 environment are often involved with configuring the software to match the organisation's operating environment during the implementation process. This module has been developed to allow you to learn how business and project structures can be created. This module teaches all necessary skills to allow an administrator to derive as much functionality from the software package as possible.

Classroom 

1 day 

Subjects

- Creating an Enterprise Project Structure
- Defining and altering project and activity codes
- Creating security profiles for users and projects
- Creating users and assigning rights to them
- Defining notebook categories and other global settings



Requirements

This training module requires a good basic knowledge of Oracle Primavera P6 (Professional).



Certificate

After completing this training module you will receive a Primaned Academy certificate.



Software version

The training module and manual are designed for Primavera P6 EPPM R8.4 and more recent versions.

Microsoft Project

Microsoft Project is a planning tool that allows you to work in a relatively simple way based on the Office experience that most users have. However, which options must be enabled or disabled to plan in accordance with the Best Practices of Project Controls? How do you create and assign resources? What is the best way to input progress and re-schedule? And what are the benefits of effectively using baselines and the various Gantt Chart visualisations? This module is more than a computer course: based on a case, linked to the manual we have developed, you learn to master both the tool and the theory.

Classroom 

2 days 

Subjects

- Creating a project and WBS
- Filters and layout
- Creating activities and relationships
- Resources and levelling
- Calenders and constraints
- Scheduling
- Baselines
- Custom fields
- Inputting and analysing progress



Requirements

This course can be followed separately without specific prior knowledge. However, a good understanding of the theory of network scheduling (critical path method) is recommended.



Certificate

After completing this training module you will receive a Primaned Academy certificate.



Part of the Project Controls education programme

This training module may be completed separately or as part of the Project Controls education programme.




Software version

The course and manual have been designed for Project Professional 2013. This module is also suitable for the versions 2010, 2013, 2016 and 2019 on-premise solutions. The manual is written for the English-language version of the software.

Microsoft Project - Expert

It comes as no surprise to you that it is possible to carry out extensive (project) planning within Microsoft Project. You already work with Microsoft Project and wish to learn the finer details of, for example, checking existing schedules or creating reports. This in-depth training allows participants to become familiar with the advanced features of Microsoft Project, such as multi-project management and the use of macros. The added value of Primaned is not just our expertise and experience, but also that we implemented the Best Practices of Project Controls in the training module.

Classroom 

2 days 

Subjects

- Multi-project management
- Reporting
- Resource pool
- Macros
- Custom fields
- Tips & tricks
- Using the organiser
- Versions of Microsoft Project
- Templates



Requirements

This training module requires a good basic knowledge of Microsoft Project as well as (at least 6 months') practical experience with this software.



Certificate

After completing this training module you will receive a Primaned Academy certificate.




Software version

The course and manual have been designed for Project Professional 2019. This course is also suitable for the versions 2010, 2013, 2016 (only reporting functionalities deviate) and other Project 2019 on-premise solutions. The manual is written for the English-language version of the software.

PMWeb End-user

PMWeb is a web-based Capital Project Management Software solution for managing the complete life cycle of a project/asset in the portfolio. PMWeb is a modular solution, which consists of modules including Portfolio Planning, Cost Management, Asset Management, Visual Workflow, Scheduling, Document Manager and many other features.

Because the tool is modular in nature, the content of the training programme is greatly dependent on the configuration used by the client. As such, the End User training programme is also modular to allow it to be adapted to the configuration and needs of the client. The length of the training programme is dependent on the subjects to be covered. Would you prefer a tailor-made end-user training programme? Then please contact us.

Classroom 
1-5 days 

Subjects

- Portfolio Planning
- Visual workflow
- Engineering Forms
- Document Manager
- Site management
- Custom Forms & Reporting
- Cost Management
- Scheduling
- Asset/Facility Management
- Timesheets
- Collaboration



Requirements

This training module can be completed separately without specific prior knowledge, and is also suitable for new users. Knowledge of the business processes supported by PMWeb is an advantage.



Certificate

After completing this course you will receive a Primaned Academy certificate.



Software version

PMWeb version 6.0.03 is used in this training module. This course is also suitable for newer releases and older versions. The manual is written for the English-language version.

PMWeb Functional Admin

PMWeb is a web-based Capital Project Management Software solution for managing the complete life cycle of a project/asset in the portfolio. PMWeb is a modular solution, which consists of modules including Portfolio Planning, Cost Management, Asset Management, Visual Workflow, Scheduling, Document Manager and many other features.

The modules, fields, lists, forms, codes, currencies, forms and reports used can be adapted to the client's needs. As such, in addition to user management, the functional administration of the tool requires knowledge of how these configured fields can be managed effectively.

During this training course, you learn to understand the structure and configuration of the tool, and subsequently to manage these effectively. The length of the training programme is dependent on the subjects to be covered. Would you prefer a tailor-made functional admin course? Then please contact us.

Classroom 

1-2 days 

Subjects

- Cost Codes
- Portfolio Settings
- User Management
- Custom Forms & PMWeb
- PMWeb reports
- Document Manager
- Integration Manager
- Lists
- Workflows
- Stage gates
- Periods
- Currencies
- User-Defined Fields
- Admin Page



Requirements

It is recommended that functional administrators first complete the end-user training module, so that they also understand the user side of PMWeb.



Certificate

After completing this course you will receive a Primaned Academy certificate.



Software version

PMWeb version 6.0.03 is used in this course. This training module is also suitable for newer releases and older versions. The manual is written for the English-language version.

Primaned Academy

Training courses

Principles of Project Controls
Setting up an Effective WBS
Critical Path Method & Scheduling Best Practices
Project Cost Planning & Control
Earned Value Management
Project Risk Management
Scheduling Risk Analysis (with Primavera Risk Analysis)
Integral Planning Management
Effective Communication in Project Controls
Change Control & Claim Analysis
Oracle Primavera P6 Professional
Oracle Primavera P6 Professional - Expert
Oracle Primavera P6 EPPM - Functional Admin
Microsoft Project
Microsoft Project - Expert
PMWeb Functional Admin
PMWeb End User
Project Scheduling Game

In-Company

Primaned Academy offers companies made-to-measure training for teams and professionals in the field of Project Controls. In addition to the training modules above, we also deliver tailor-made support for usage of Oracle Primavera P6 Professional, Microsoft Project, PMWeb, ScheduleReader and Primavera Risk Analysis software packages.

Primaned Academy LinkedIn University Page

Follow us on LinkedIn for the latest news and blog posts about Project Controls, and add us to your Education on your LinkedIn profile.

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