IT-SIMPLICITY SOLUTIONS BV

ITS–NetProject™
Our FTTH / FTTX network planning &
project management software is
an important member of our suite
of FTTH solutions & planning tools.

Project phases:
Preparation/Planning
Implementation/Execution
Commissioning/Maintenance
With:
Material management
Contract management
Project management

FTTH / FTTX turn-key project planning & management

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- Introduction FTTH / FTTX network planning
- General information
- Project orientation
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- Material management
- Project management
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ITS-NetProject

Extensive system for: **Material, Contract and Project management**.

Lego-like structure: three project levels with 'building blocks'.

Total process control, including: purchasing, contractors, progress reports.

Completely customizable and simple to operate.

Picture: FTTH project preparation, implementation and commissioning, project info, supplier info, datasheets

ITS-NetProject is made for the complete project- and material management of turn-key telecommunication FTTX / FTTH projects.

It is also used to get a quick estimate of cost and sales prices, material and labour quantities for concepts/drafts and detailed network designs.

ITS-NetProject is the proven product of 30 years of experience in designing, engineering, installing, commissioning and maintaining communication networks.

The software can have added value for anybody who has to deal with network engineering & planning, business case calculations and turn-key projects, large and small, urban and rural, business areas, FTTX networks and massive FTTH projects.

ITS-NetProject: our software for FTTH / FTTX project planning & management.

Turn-key projects.
The FTTH / FTTX network planning software was originally made by and used internally by: NKF (Nokia / Philips) / Draka (Prysmian Group) and their project offices with local staff for the planning & building of turn-key OSP Telecom projects.
Demands: simplified project structure, detailed reporting, clear project management.

History.
Since 1983 NKF has been developing pc software for project management. In 1985 NKF started the creation of Toppics, a successful project management software, created specially for very large Out Side Plant turn-key projects. The development of NetProject started in 1995 as a replacement for Toppics. Since then the software has been renewed every year and has been used intensively in several countries in: Africa, Asia, Europe, The Middle-East & The Caribbean for Copper & Optical fibre networks. Since 2012 the software is commercially made available by ITS.

ITS-NetProject is developed as a multi-user system with a central MySQL database. This project planning software offers, per project:

Material management
- Product management (Component & Supplier management)
- Purchasing
- Store management (store content, incoming and outgoing materials, etc.)

Contract management
- Contractor definition
- Contract definition (scope, labour components, prices, etc.)

Project management
- Job / work-order definitions
- Implementation scheduling with Job release & material issue notes
- Progress & as-built reporting, billing & payments

ITS-NetProject is both project- and job (work-order) oriented. Each project is build up in its own project-file, separate from the other projects.

There is **one MASTER project** which is accessible for modification by authorized personnel only. In the MASTER project all relevant data (for instance price-information) is centrally controlled and kept up-to-date.

From within each individual project, information can be copied or updated from this MASTER project and any other project.

Creating a new project can be done in several ways:
• Start a new empty project
• Start a new project with all definitions from another project

Within a project you can:
• Define & modify materials & installation units manually
• Copy certain (or all) materials & installation units definitions from other projects
• Update material & installation unit definitions with relevant data & prices

ITS-NetProject uses only three ABC levels to define a project:

1.Area-activity Job level
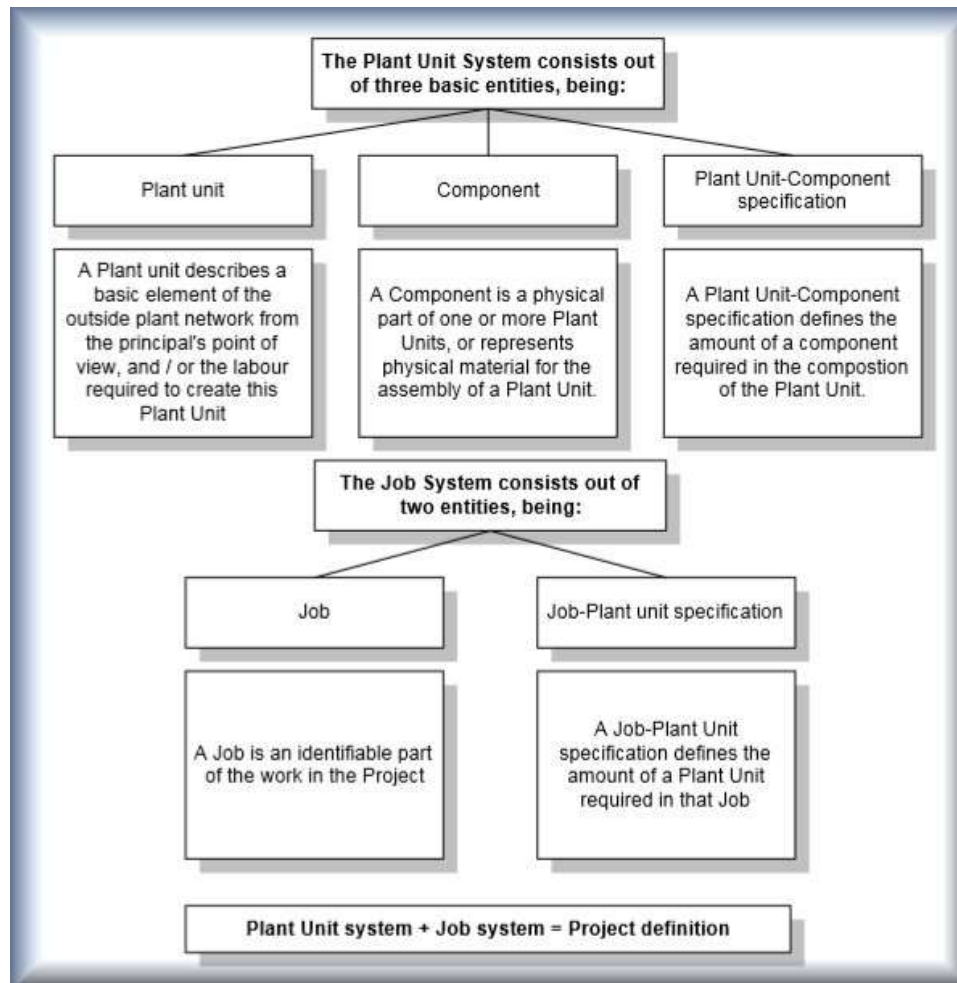2.Building-block Plant-unit level
3.Component Component level

1.Job level (work-order / activity): plant-unit codes with job-specific quantities

2.Plant-unit level (installation unit): material and/or labour, combination of components

3.Component level: a material or labour element

Job orientation, definitions

This system is successfully implemented in numerous projects. Plant-units may be regarded as multiple component units, whether they are material components, labour components or a combination of both. The plant-units were introduced to simplify design, project management, purchasing and invoicing procedures.

ITS-NetProject is typically used in combination with our network design tool ITS-NetDesign. With ITS-NetDesign jobs are created automatically, simply by making designs with our drawing FTTH / FTTX objects. To these drawing objects, plant-units and quantities are attached automatically. This drawing information can easily be imported / updated by ITS-NetProject, within seconds all network designs details, quantities and costs can be shown with a variety of standard reports.
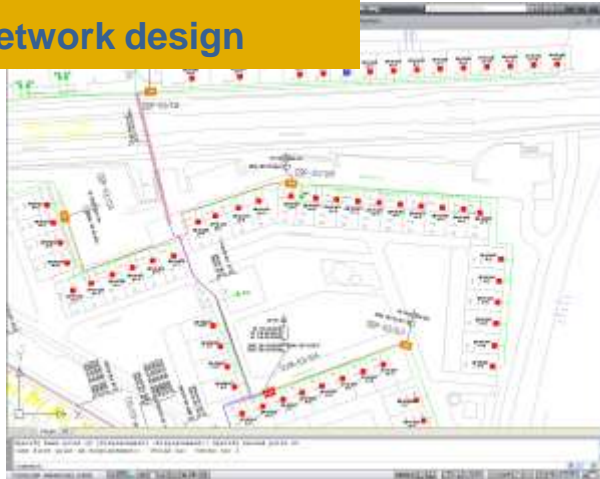
IT-SIMPLICITY

Job orientation, design link

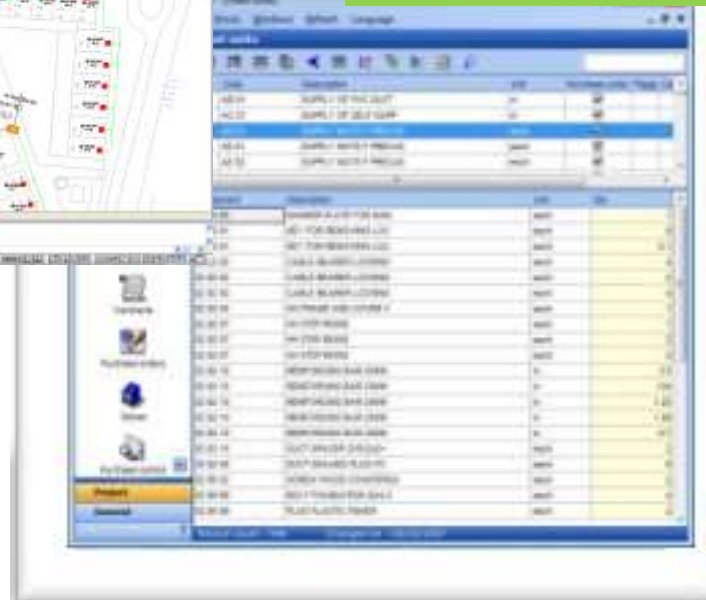The direct link between our network design & project management software

ITS-NetDesign

FTTH / FTTX network design

Design of detailed FTTH-networks
►AutoCAD® based creation of all required drawings and network related quantities.
Unlimited project / network size
Totally customizable
Produces installer-ready designs
Automatic labelling
Automatic job creation

ITS-NetProject

FTTH / FTTX Project Management

Reporting
► Detailed installation and material quantities and costs per job/activity/area/project.

The direct link between our network design & project management software

ITS-NetDesign

FTTH / FTTX network design

ITS-NetProject

FTTH / FTTX Project Management

Example:

When drawing in Autocad with the ITS-NetDesign toolbar:

- Click in the FTTH / FTTX toolbar "Tubecable 40/10x7 in trench"
- Draw a simple line with a length of 1 meter

In ITS-NetProject the following Bill of Quantities will be produced automatically:

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DRAWING-OBJECT:		Tubecable 40/10x7 in trench	1m
1		HDPE-duct 40mm	1m
2		Guidetube 7/5.5mm	10m
3		Prefabrication guidetubes in HDPE-duct	1m
4		Duct identificationmarker	0.5pce
5		Trenching	1m
6		Laying tubecable 40mm/10x7mm	1m

In a project-environment, the material management is of the utmost importance. The control over the material locations and material flows has a very high organizational and financial impact on the project.

In ITS-NetProject, therefore the following material management tools are available:
- Product management
- Purchasing
- Store management

Product management

ITS-NetProject: all material and labour components to be implemented in a project can be uniquely defined with article codes, units, supplier information, price information. Quality control documents can be attached per component.

Example:
In the main component screen an overview is given of the 89 component definitions in this project X.

A larger FTTH / FTTX project can have 200 – 300 component definitions.
(Copper > 900 definitions)

Flag	Code	Description	Unit	Type
☐	P037304980	PLUG TYPE 13: SEALING DUCT 40MM TO 5X10MM OUTSIDE	pce	L. mater
☐	02 37 30 450	CONNECTOR GUIDETUBE STRAIGHT 7-7MM	each	F. mater
☐	02 37 30 460	CONNECTOR GUIDETUBE END-STOP 7/0MM	each	F. mater
☐	02 37 30 461	CONNECTOR GUIDETUBE END-CABLE 7/4MM	each	F. mater
☐	02 37 30 465	CONNECTOR GUIDETUBE END-STOP 10/0MM	each	F. mater
☐	02 37 30 466	CONNECTOR GUIDETUBE END-CABLE 10/5MM	each	F. mater
☐	02 37 30 154	DUCTCOUPLING 25-25 MM	each	F. mater
☐	02 37 30 160	DUCTCOUPLING 50-50 MM	each	F. mater
☐	18002037	OPTICAL FIBRE CABLE 12xSM+12xMM (SM-LRG)	m	F. mater
☐	18002584	OPTICAL FIBRE CABLE 4xSM 9/125 G.652.B	m	L. mater
☐	18002585	OPTICAL FIBRE CABLE 12xSM 9/125 G.652.B	m	L. mater
☐	18002587	OPTICAL FIBRE CABLE 48xSM 9/125 G.652.B	m	F. mater
☐	18002644	OPTICAL FIBRE CABLE 60xSM 9/125 G.652.B	m	F. mater
☐	18002679	OPTICAL FIBRE CABLE 2xSM 9/125 G.652.B	m	L. mater

Record count : 89

Project management

ITS-NetProject is organized in such a way that it can directly be used for project management purposes.

In ITS-NetProject jobs, defined by a scope and a planning, are issued to the contractor for implementation.

During the preparation phase the contractor checks the received job on completeness, amounts, etc. and reports deviations to the customer.

Any necessary modification to the original job description is done by site instructions.

The sum of the job issue-notes and the site-instructions states the actualized job definition: this is the up-to-date version of what the contractor has to do. In this way the implementation process can flexibly be adapted to the circumstances while keeping completely in control.
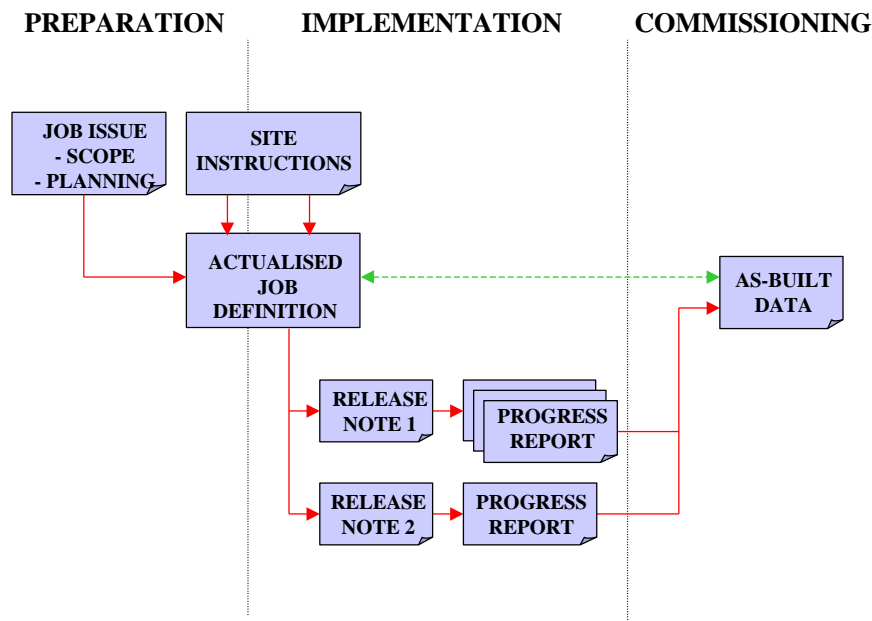
Project management

A job can be so large or complex that it has to be implemented in parts or sections. For this purpose release notes are issued to inform the contractor when he is allowed to do a certain portion of the job / work. On these release notes the progress is reported, as well as the as-built data.

PREPARATION   IMPLEMENTATION   COMMISSIONING

- JOB ISSUE - SCOPE - PLANNING
- SITE INSTRUCTIONS
- ACTUALISED JOB DEFINITION
- AS-BUILT DATA
- RELEASE NOTE 1
- PROGRESS REPORT
- RELEASE NOTE 2
- PROGRESS REPORT

Project management

The following picture displays the main job menu screen. The upper part of the menu displays the different jobs which are to be implemented in this project. In the lower part of the menu the contents and details of the job selected and highlighted in the upper part are displayed.

Project management

By selecting / double clicking a job all detailed information is shown:

- Contract (contractor+prices) selection
- Design status & Logistical status
- Quantity details for designed, extra work & as-built
- Attached documents
- Release notes
- Progress reports & Billing & Payments
- Material & labour details
- And more….

Reporting

ITS-NetProject contains a flexible report generator.

On all levels (jobs, plant-units, components) or items like contractors or suppliers a specific report can be generated..

There are already more than 80 standard reports, they can be:

Modified, pre-viewed, printed, exported (pdf, Word, Excel, html, data)

The lay-out of all reports can be adapted to the project specific wishes

Some examples:
- "Bill of Materials" (BOM) per job(s)/area/project
- "Bill of Quantities" (BOQ) per job(s)/area/project
- "Bill of Quantities – prices" (BOQ) per job(s)/area/project

ITS-Software Suite™, summary:

FTTH / FTTX ITS-Software Suite™
Is a **proven software solution** to Design, Build & Maintain FTTX networks.

The ITS-Software Suite™ has designed, registered and installed **several millions** of connections.

The ITS-Software Suite™:
- **Cost optimized** automatic CAD design
- **Dedicated software** for FTTH / FTTX **Project-Management**
- Simple conversion from pre-registration to As-built **network registration**
- Offers **full process control** over your projects

IT-SIMPLICITY

FTTH / FTTX Software Suite

Our FTTH / FTTX network design & engineering software solutions:

Design   *Build*   *Operate & Maintain*

ITS-NetDesign
Network design

Design of detailed FTTH-networks
► AutoCAD® based creation of all required drawings and network related quantities.

ITS-NetOptimus
Automatic optimization

Cost optimized network design
► Automatic, based on material & installation costs

ITS-NetProject
Project Management

Simplifies complex networks
► Managing of all labour, quantities & costs. Material management & process control

ITS-NetID
Network Registration

Registration & Documentation
► Creation of fibre connections / jointing reports. Integrated GIS.

ITS-Software Suite™, network design:

ITS-NetDesign™
Flexible solution for FTTH / FTTX design, based on **Autocad**®.
Automatic: costing, cabling, labelling, easy switch from P2P to GPON.
Fast output as: schematics, installer ready & as-built designs. Easy to learn.

Picture: FTTH network design Amsterdam including labelling, calculations, project management and registration

ITS-Software Suite™, project management:

ITS-NetProject™
Extensive system for: **Material, Contract and Project management**.
Lego-like structure: three project levels with 'building blocks'.
Total process control, including: purchasing, contractors, progress reports.
Completely customizable and simple to operate.

Picture: FTTH project preparation, implementation and commissioning, project info, supplier info, datasheets

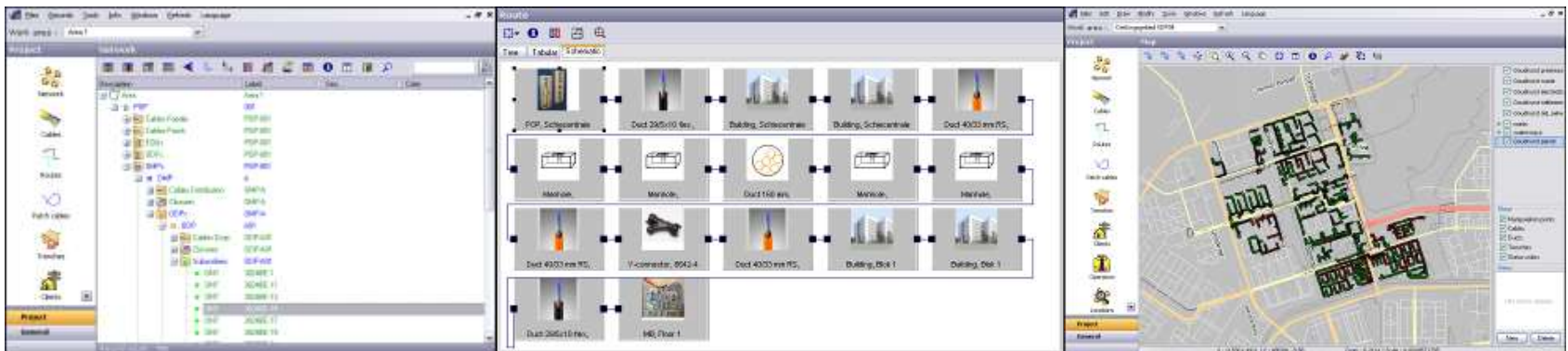**ITS-Software Suite™, network registration:**

ITS-NetID™
Optical fibre network registration with easy tree structure en integrated GIS.
All information directly available for multiple users.
All network details are direct available in multiple views and GIS.
Lego-like customizable building blocks. Easy to operate.

Picture: FTTH network documentation, registration views: tree, cable route, interactive map, GIS

ITS-Software Suite™, automatic cost optimized network design:

ITS-NetOptimus™
Our **automatic network design** solution.

Creates the highest quality FTTH / FTTX network-designs by using complex optimization algorithms within a user friendly graphical interface.

Cost optimized network designs are made in minutes instead of days.

Optimization parameters:
- Civil costs
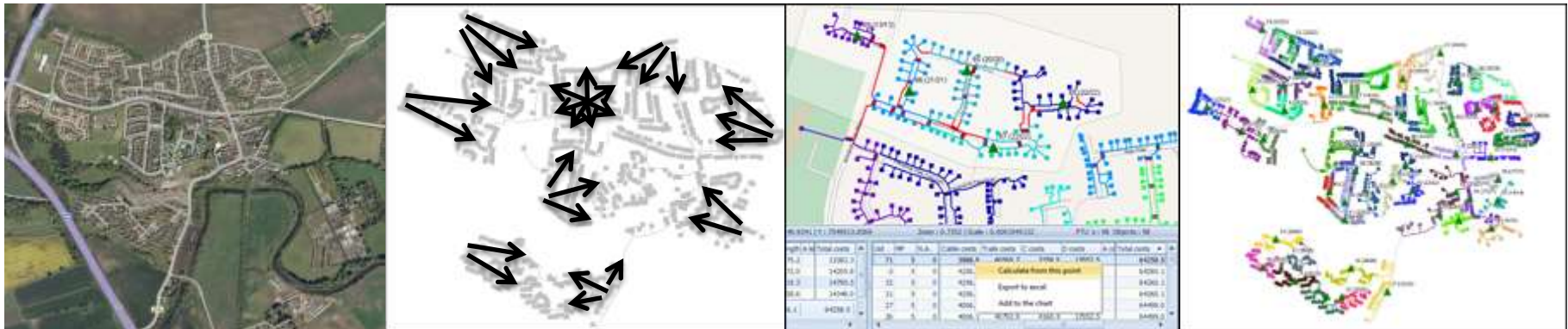- Material costs
- Installation costs

ITS-Software Suite™, automatic cost optimized network design:

ITS-NetOptimus™ offers substantial benefits in terms of **reducing** the **engineering time and network building costs**.

The best network designs are listed with costs and made visible within minutes

Picture: FTTH project photo, multiple calculations, alternative designs listed, best DP area's

ITS-Software Suite™, automatic cost optimized network design:

Network designs and costs are directly available per area.

Multiple levels and network concepts.

Substantial savings (approx):
20 % less drop cable by improved grouping homes
2 % less distribution cable by best DP positioning
2% less trenching costs by improved routing

100 times faster than manual / alternative engineering

IT-SIMPLICITY

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