ITS-Simplicity Solutions

ITS-NetOptimus™:
Automatic cost optimised network design software
Contents:

- About us
- ITS-NetOptimus
- ITS-NetOptimus examples
Turn-key projects
The Fibre optic FTTH / FTTX network design software was originally made by and used internally by: NKF (Nokia / Philips) / Draka (Prysmian Group) and their project offices with local staff. Simple to use software to: design (AutoCAD Map3D), engineer, plan, build and complete turn-key OSP Telecommunication projects.

History
Since 1994 we offer FTTH software & engineering services for large Telecom networks.

The Draka/Prysmian project & software engineering team took over all OSP software tools & solutions, rights and ownerships, from Draka / Prysmian and became an independent company called ITSimplicity Solutions BV (ITS) in February 2013.
Services

ITS provides FTTH design & engineering services for projects all over the world.

We provide:

- Business case support with network calculations & network concepts
- Survey drawing examples, survey checklists & software tools
- High-level network design and quantities (automatically generated)
- Installer ready, detailed network designs (duct-plans & drawings, cable-drawings)
- Fibre schematics
- Quantities reporting
Software
Our main software focus is the design and project management of Telecom networks. For the design part we made an application as add-on for AutoCAD (Map3D): ITS-NetDesign.

For the reporting & building part we made extensive project planning software: ITS-NetProject.

For large projects, we made an automatic design tool with cost optimisation: ITS-NetOptimus.

As simplified registration tool, for the creation of splicing schematics and as bridge(interface to certain Operator GIS software we made ITS-NetID.
Automatic cost optimised FTTH / FTTX network design.

Complex optimisation algorithms, in a simple to use graphical tool.
FTTH network engineering for 1000 homes

Manual engineering    versus    Automatic with ITS-NetOptimus

16 hours    <1 hour + improved network design
1000+ calculations  10.000.000+ calculations

Save time and €10 per home!
Savings, a calculation example for 1000 homes:

Improved grouping homes \[ \downarrow \]
Best DP positioning \[ \downarrow \]
Improved routing \[ \downarrow \]

- 20% less drop cable
- 2% less distribution cable
- 2% less trenching costs
The design process starts with the area map
Insertion of the buildings and trails
Automatically made (green) garden trails
Log in to the NetOptimus portal

Customer login

**Log in**

Email : dick.van.den.dool@it
Password : XXXX

Login

Forgot your password?
Upload NetDesign data & check credit usage

Welcome Dick van den Dool.
Company : ITSimplicity

- Purchased credits: 54000
- Used credits: 13919
- Remaining credits: 40081

Upload the NetDesign data file (*.nif) from the NetDesignData folder.

Project name: 

Upload
Download encrypted data for NetOptimus

Welcome Dick van den Dool.
Company : ITSimplicity

Purchased credits : 54000
Used credits : 13910
Remaining credits : 40091

Upload the NetDesign data file (*.xml) from the NetDesignData folder.

Project name :

Upload

Welcome Dick van den Dool.
Company : ITSimplicity

Upload history (160)

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View of the building properties and trails
Manual engineering
1 design, based on 1 starting point

ITS-NetOptimus™
All designs, all starting points

Based on the logical grouping of the remaining homes

Based on installation and material costs
Lists all alternative designs with their installation & material costs
By simply selecting a solution from the list the design is shown
The automatically made design
Multiple levels and network concepts

DP areas
Building ⇔ DP

Distribution net
DP ⇔ Cabinet

Feeder cables
Cabinet ⇔ POP
The automatically made design viewed in AutoCAD (Map3D)
Possible trails

Manual ↔ Automatic

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<th>Material</th>
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Savings: € 2232
(238 homes)
€ 9,38 / home
ITS-NetOptimus™

Possible trails

Manual ↔ Automatic

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<th>Material</th>
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<th>Manual – NetOptimus = m</th>
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Savings:
€ 856
(88 homes)
€ 9,70 / home
Design time for 10,000 homes

**AutoCAD (Map3D): creating the input**

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<th>15h / 15 minutes import digital data</th>
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<tr>
<td>Possible trails/lines:</td>
<td>15h / 15 minutes import digital data</td>
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- Topo map with streets
- Homes / entry points
- Optional Trails

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**INPUT**

[Images of AutoCAD interface with NetOptimus™]
Design time for 10,000 homes
NetOptimus: best cost optimisation setting

Optimisation time drop level: 7.0h
Design time for 10,000 homes
NetOptimus: best cost optimisation setting

Optimisation time distribution fixed/ free POP location: 0.5h
Design time for 10,000 homes
AutoCAD (Map3D): import from NetOptimus

Import: 50 minutes
Visualisation options

NetOptimus: Design mode

NetOptimus: OpenStreetMap

NetOptimus: BING roads

NetOptimus: BING aerial
Visualisation options

The NetOptimus design directly shown in Google Earth
Automatic FTTH Network design and cost optimisation.
ITS-NetOptimus™ uses smart Algorithm’s to swiftly create multiple alternative network designs.

Easy input of the material and labour unit costs per project.

Best, cheapest, grouping of FTU’s, network routes/trails and central positions.

The engineer can simply overrule the system and favor/block certain trails and favor certain (already known) manipulation point positions.

Multiple level design: Distribution network; Feeder network etc.
**ITS-NetOptimus™ CAD tools**
ITS-NetOptimus™ comes with CAD tools for automatically processing the required input data and for the processing of the ITS-NetOptimus™ data into detailed CAD designs.

**ITS-NetOptimus™ CAD tools:**
- Import of building properties.
- Line trace functions for possible trails creation.
- Automatic garden trail creation, building → main trail connection.
- Automatic line segmenting at line intersections.
- Line connection checks.
- Line overlay and crossing checks.
- Building connection check.
- Automatic coordinate corrections.

**Export data to ITS-NetOptimus™.**

**Import data from ITS-NetOptimus™.**
- Automatic creation of cables and manipulation points.
ITS-NetOptimus™ input/output

Data via Webportal
Credit system

Software Suite

NetOptimus

Other software

Google Earth

AutoCAD (Map3D)

Excel

Excel
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