

# NKA - NORDIC CABLE APPLICATION

## 80% OF THE NORWEGIAN CABLE-TV NETWORK IS DOCUMENTED IN SMALLWORLD NKA

Smallworld Systems AS, the Norwegian Smallworld distributor, has in cooperation with its customers developed a solution which today covers more than 80% of the cable-TV market in Norway. The two companies CanalDigital and Get have both several hundred thousands customers and have used NKA for many years.

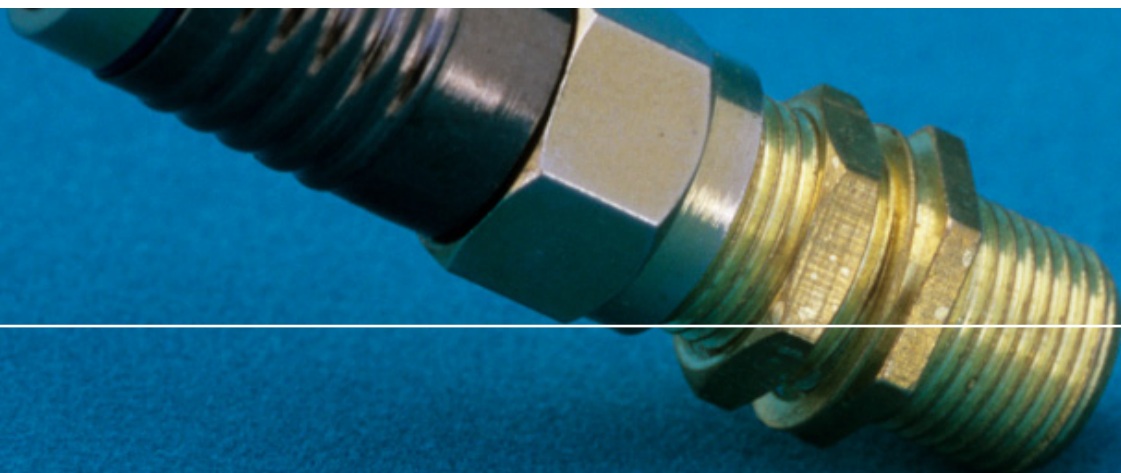
A WELL PROVEN SOLUTION TO PLAN AND MAINTAIN COAXIAL NETWORKS FOR CABLE-TV. NOW ALSO INTEGRATED IN SMALLWORLD NETWORK INVENTORY.

The solution covers all major requirements to a modern cable-TV documentation system, including signal and noise calculations.

Cable companies have fiber to the home networks (FFTH) in addition to coaxial networks. For this reason the NKA is being integrated into the GE Smallworld Network Inventory as a module.

## SMALLWORLD ADVANTAGES

Since the beginning NKA has been built upon the main Smallworld strengths like GIS and Network Information residing in the same system. Multiuser system, large databases, topology and internals have been the NKA differentiators for more than a decade, and they still are.



## A SIMPLE AND POWERFUL MODEL OF THE PHYSICAL COAXIAL NETWORK

Major elements in the data model include the external geographical objects like trenches, cabinets, RF-cables and drop-cables. In the internal NKA world there are amplifiers, splitters, terminators, power supplies, internal cables, taps and delivery points. The model covers the complete network including the customer connection and address. The model supports frequencies both forward and reverse and functionality for catalogue data is available. The emphasis on using the internal world has proven to be a good solution for the different types of personnel operating the NKA.

## NAVIGATION

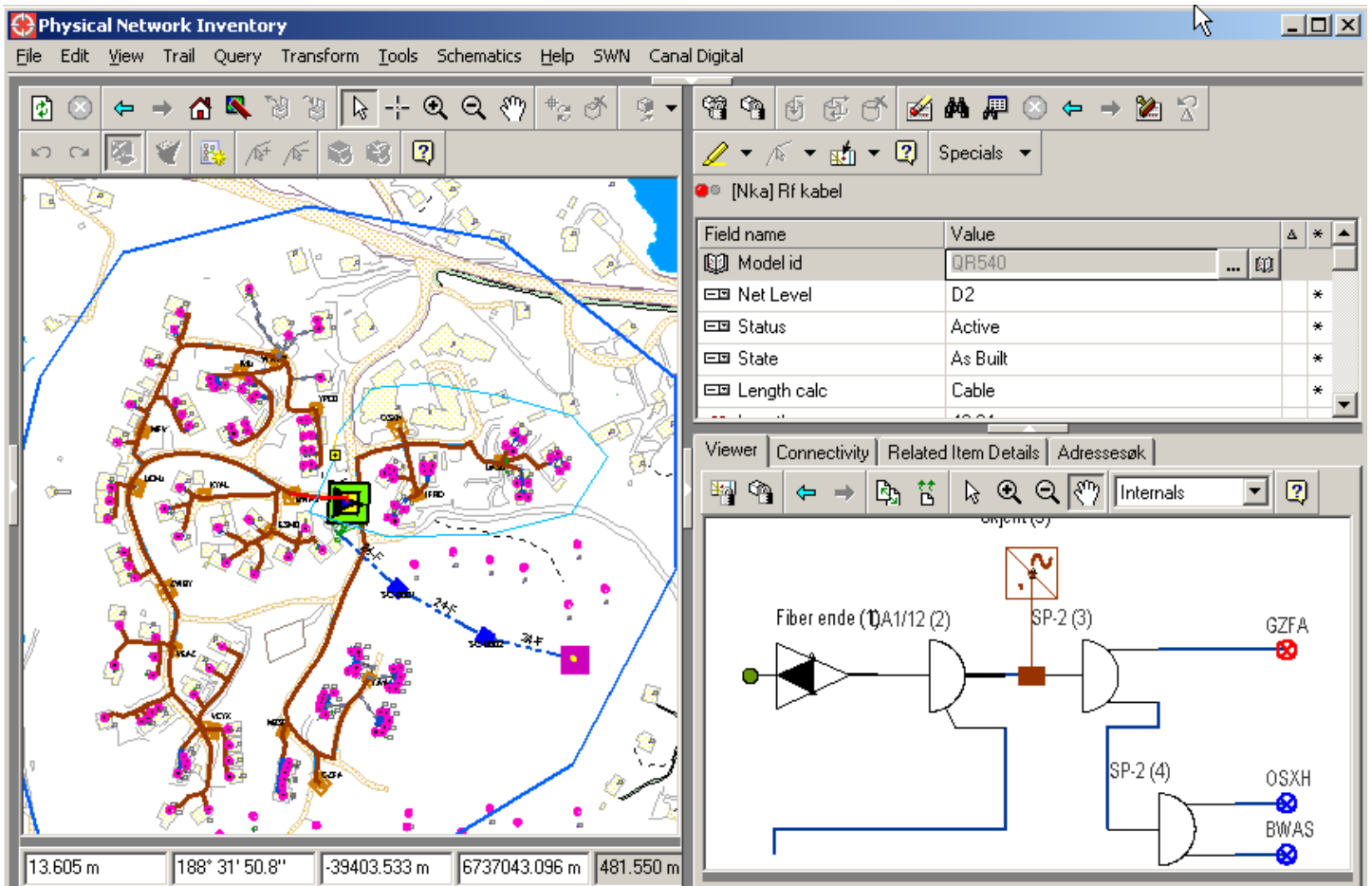
Navigating in the network structures in NKA is very easy.. The user can easily move between the internal and the GIS worlds.

As the internals play an important role in maintaining the coaxial network there are simple means to move along the network from one connection point to the next by just one click on the cable going out from the actual cabinet to the next.

## WEB-ACCESS TO DATA

Frequently accessed data can be viewed in an internet browser from where one can easily print or plot information in predefined layouts to for example PDF-format. This tool can help the company in automating the production of tenders or plans to save valuable resources to more important business.

The NKA coaxial application offers additional functionality to support the business processes for planning, maintaining and operating the cable-TV network. Major functions include the signal level and noise calculations, tracing and schematics.



Cabinet with internal components. Including cables coming in and going out.



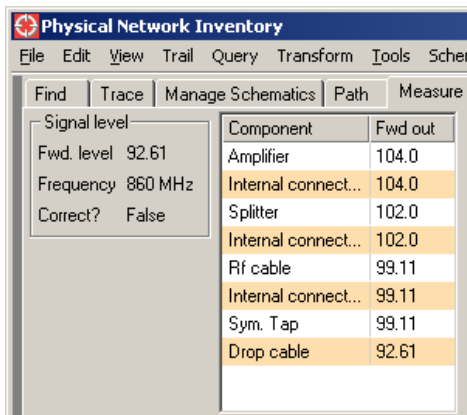
## CALCULATIONS

All the calculations can be left open in the upper half of the main window to support immediate access to the values at any time. When planning and maintaining the network it is important to have fast and simple access to standard calculations for signal level attenuation and noise level calculations.

Calculations are performed each time a new network object is selected in the internals of any cabinet. The calculation is performed for each and one of the components upstream to the feeding amplifier seen from the object being selected. In case there is a need to select another amplifier to increase the levels the planner can easily do that by modifying the type of amplifier in the object editor and the calculation is instantly run to present the new levels.

Noise level calculations are simultaneously run when selecting any amplifier. Each of the values involved in the actual calculation can be toggled on or off. Main values include C/N, CSO, CTB, IMD and XM. Any calculation formula is supported through configuration by Smallworld Systems AS.

NKA also supports current distribution and calculations in the CATV network. Amplifiers are connected to power supply, and the current drawn from a supply can be calculated correctly.



Here we see calculations performed each time a new network object is selected in the internals of a cabinet.

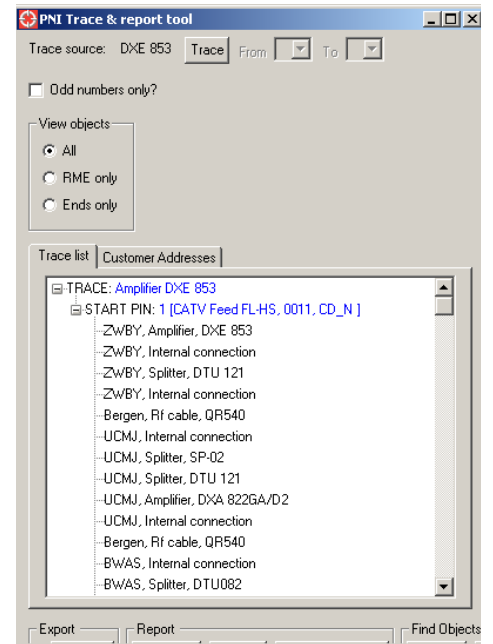
## SCHEMATICS

You can display the schematics for any given part of the NKA coax network. The schematics can be created on the fly or be saved for later and faster use.

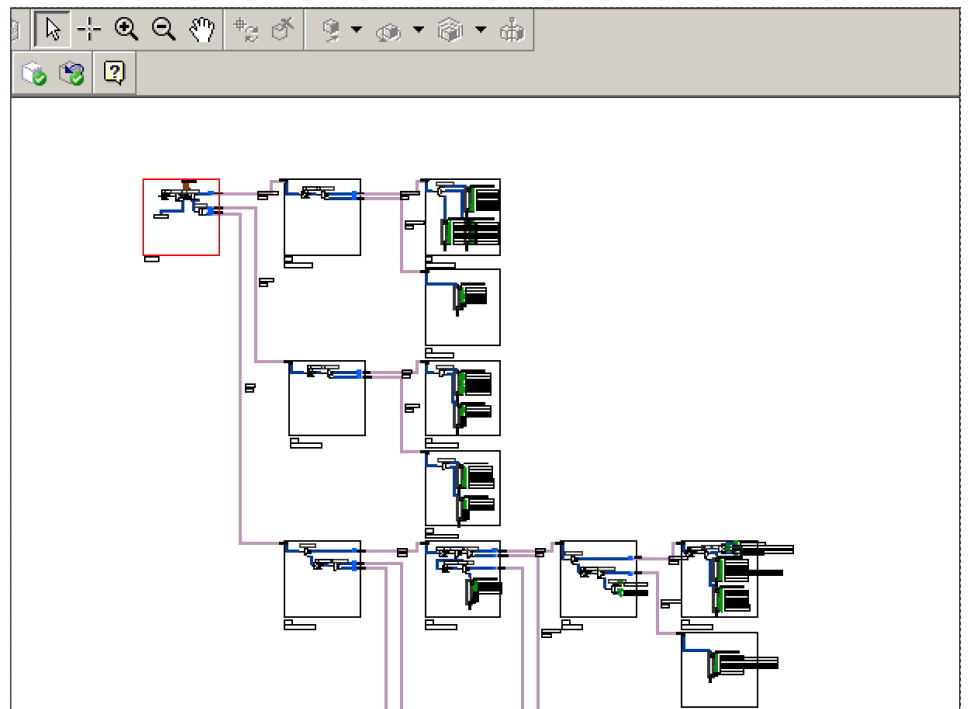
## TRACING

NKA has a specially developed function to trace out the network from any source in the fiber or coax network. The displayed result contains components in the traced network.

In the situation where there are customers connected they can be listed in the tab "Customer Addresses" next to the "Trace list" tab.



You can trace out your coax or fiber network from any source to see components or customers.



This figure displays the schematics of a given part of an NKA coax network.

Amp. Model	Fwd. Output Values	Fwd. Input	Calc. Fwd. In	C/N	CSO	CTB
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fiber ende	860 MHz(78.00) , 80 MHz(78...	68.00	unset	49.50	64.00	68.00
DXA 822GA/D2	860 MHz(102.0) , 80 MHz(94...	72.00	57.73	49.25	63.72	66.36

Here we see the values for two different amplifiers involved in a calculation.





#### SMALLWORLD SYSTEMS AS

Smallworld Systems AS is a Norwegian distributor of software from GE Infrastructure for cable owners. We help owners of infrastructure to take out the great potential that lies in better handling of existing data about the owners assets and installations.

Our main focus lies within electricity supply, telecoms and district heating.

#### CONNECT WITH US

Facebook: [facebook.com/SmallworldNO](https://facebook.com/SmallworldNO)

Twitter: [twitter.com/swno](https://twitter.com/swno)

Google+: [gplus.to/swno](https://gplus.to/swno)

LinkedIn: [linkedin.com/company/smallworld](https://linkedin.com/company/smallworld)

Newsletter: [www.smallworld.no/nyhetsbrev](http://www.smallworld.no/nyhetsbrev)



Scan this QR-code with your phone and subscribe to our newsletter.

#### GET IN TOUCH

Smallworld Systems AS  
Skytterdalen 6  
N-1337 SANDVIKA  
NORWAY

+47 67 57 27 30

[office@smallworld.no](mailto:office@smallworld.no)

[www.smallworld.no](http://www.smallworld.no)

[www.gepower.com/networksolutions](http://www.gepower.com/networksolutions)

