

// PRODUCT SHEET

C line



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- Cabling
- Switch Cabinet
- Operating Instructions
- Tray Management
- Signal Tracing
- Inventory Management
- Netspider

// C line

C line is the solution for managing the physical infrastructure, the cabling as well as the physical route search. C line is offered as a package, it is not possible to take out individual functions. C line is the ideal platform for the uniform representation of the infrastructure of a company network.

The objects placed in C base can be connected physically as well as logically and create a gapless transparency of the network of the entire company. The established connections can be monitored by the user with field-proven tools such as the *Signal Tracing* or the *Route Editor*. Convenient search masks for database objects and the option of integrated inventory management in the sense of stockkeeping facilitate the work of users and administrators. This applies not

only to the field of the networks but also to the field of telephony. The special features of the telephony sector are taken into account in the representation of switchcabinets as well as in the *Carrier Line* program section.

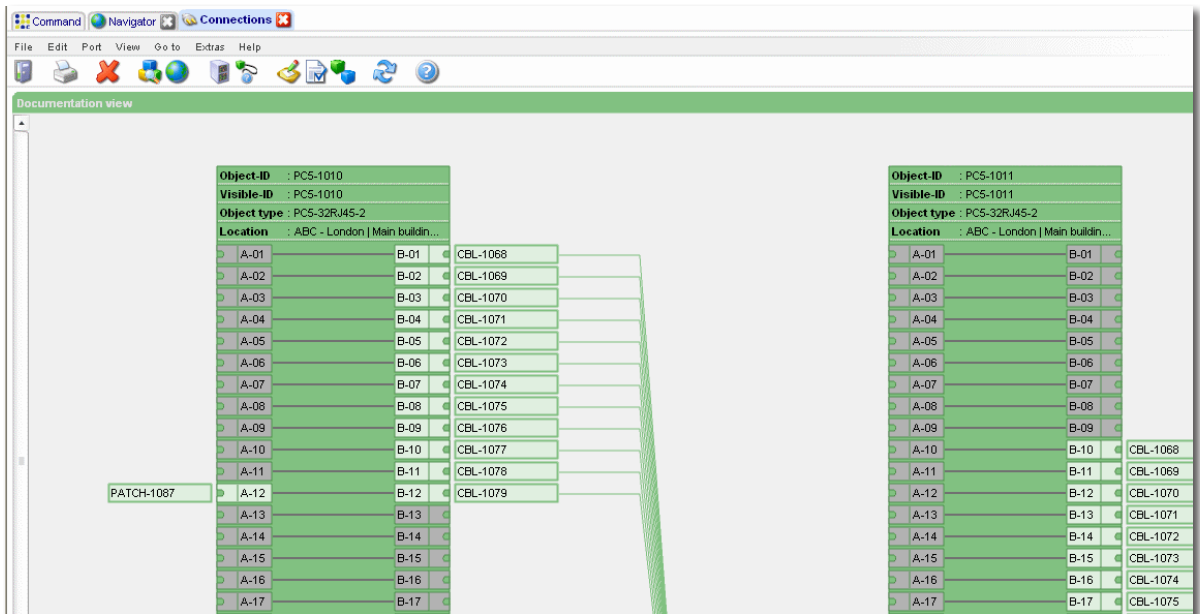
// Navigator - Core Element

The *Navigator* is the core element of Command. With its zone structure of the real estate it forms the basis of Command. All program sections of C line are entirely integrated in the *Navigator* and can be called via the *Navigator*.

// Cabling

All common cable types are stored in C line. This is for displaying the physical cable connections. A structured cabling in patch and fix cables is required to make use of the complete functional scope when making the connections. Patch cables connect terminals with junction boxes or patch panels with chassis. Fix cables lead from the junction boxes to the patch panels as permanently installed cable routes.

Plausibility checks with regard to the medium (copper, glass) and the plug-in connections prevent input errors. Functions such as the bundled cabling for the simultaneous connection of multipair cables to several cabinets or the use of junction boxes are contained in the basic functions.

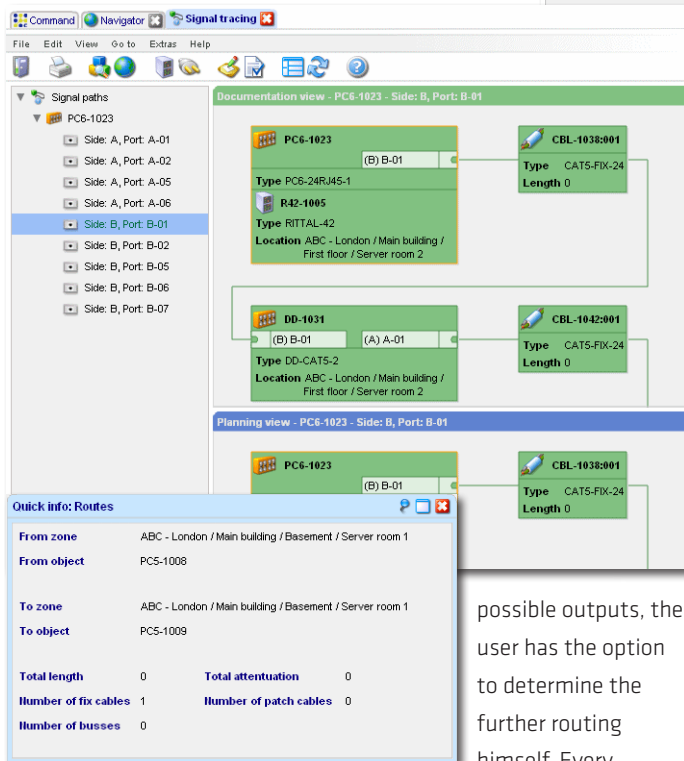


Additional information can be stored for each cable created in C line. The cable length and attenuation serve as criteria for the routing to create connection paths.

In the also integrated *Route Management*, cables can be assigned to specific route segments. The weight and fire load of all contained cables are summed up via a route cross-section. With the help of routes, a cable run can be displayed graphically in corresponding layout plans. For the evaluation of connections, functions such as assignment list, signal tracing and usage calculations are available.

// Signal Tracing

The *signal tracing* schematically displays the switching section of a selected port. The devices and cables can be displayed as a block diagram in that. For a quick distinction of patch and fix cabling, different symbols are used. The form of representation of the signal tracing can be set by the user in four different variants. Via each object of the graphic it is possible to branch to different Command functions. The most important characteristics from the database are directly displayed. When the signal tracing encounters an object with several



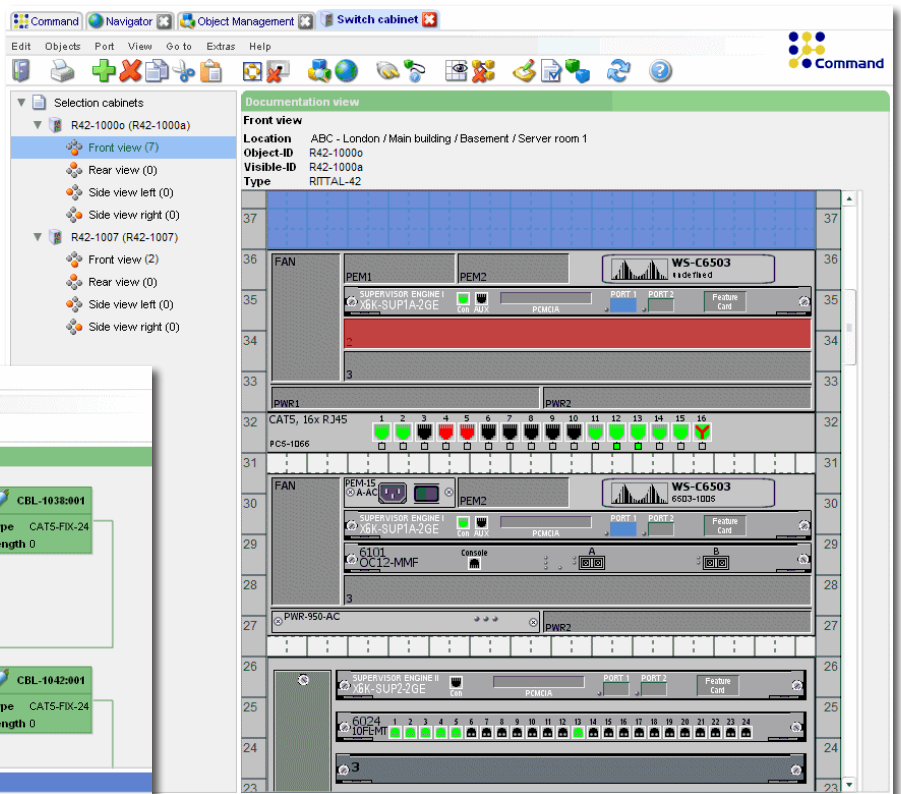
possible outputs, the user has the option to determine the further routing himself. Every

connected port can be used as the start point. Via the function of the route editor, a start and end point can be selected and all route sections are summed up in length including attenuation.

// Switch Cabinet

The representation of switch cabinets is realistic. The used graphics are part of the scope of delivery of the product library of C base (CI Library). The user can thus get also an optical idea of the real cabinet design. The used graphics are sensitive; collision consideration, port assignment and database information can be called directly.

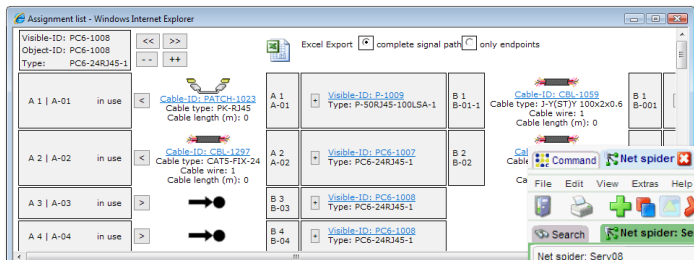
The planning of switch cabinets and the related option to select the view as planned/actual are part of the switch cabinet functionality.



For each switch cabinet, four installation sides are available; the user can open several cabinets simultaneously. The wiring state of each single port (planned/actual/locked) is displayed graphically. Direct patching in the switch cabinet is possible; the individual patchings can be displayed graphically. Complete switch cabinets can be defined as an assembly unit and copied; it is also possible to create smaller standardized assembly units.

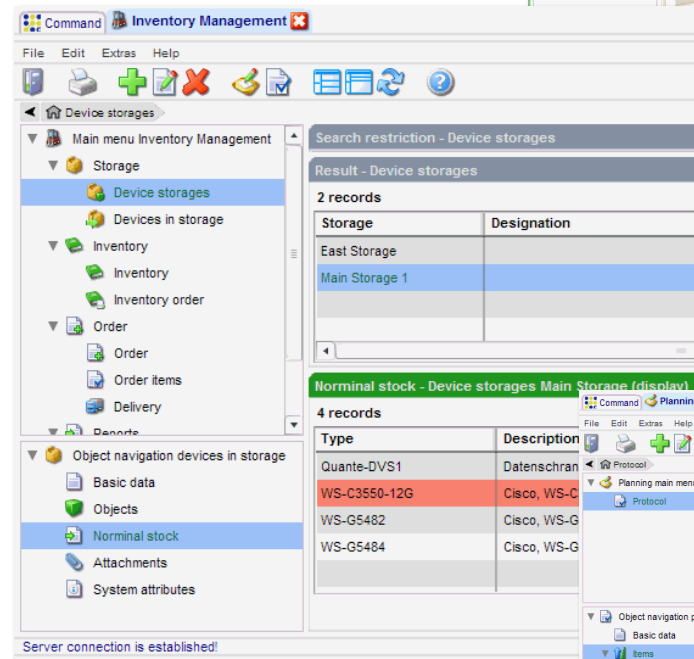
A differentiation can be made between data distribution and telecommunication switch cabinets. The representation of telecommunication switch cabinets is done with the help of bays and rows. The size can be adapted, additional bays can also be added subsequently. All common strip types are stored in the master data and can be installed. The representation of the strips is true to scale. The option to represent all incoming and outgoing cables via a cable list

including further cable data is also available, as well as the displaying of detailed information on installed strips.



// Inventory Management

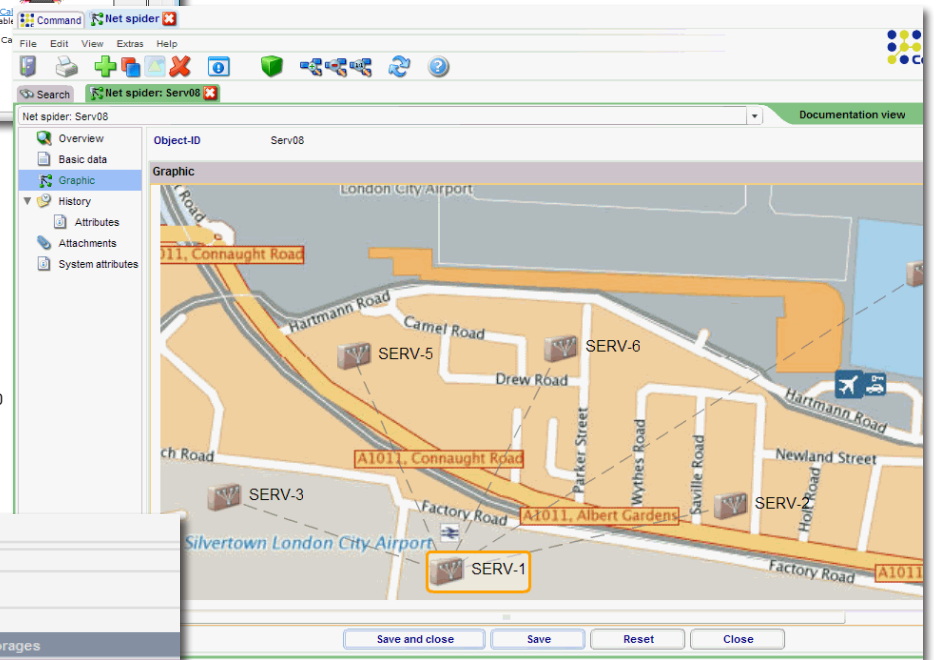
The *Inventory Management* deals with the topics inventor and warehouse management. C line offers a standard procedure for inventorying. First, master data for the objects are created and inventory numbers reserved. After delivery, the devices are created in the database. An interface to SAP or other commercial software packages as well as the use of bar code readers was implemented in



several projects. The *Inventory Management* allows for creating any storage locations. Access rights and business processes can be defined separately for each storage location. The stored objects can also be already inventoried elements. Integrated reports provide information on the inventory. Threshold values for the order can be defined by the administrator.

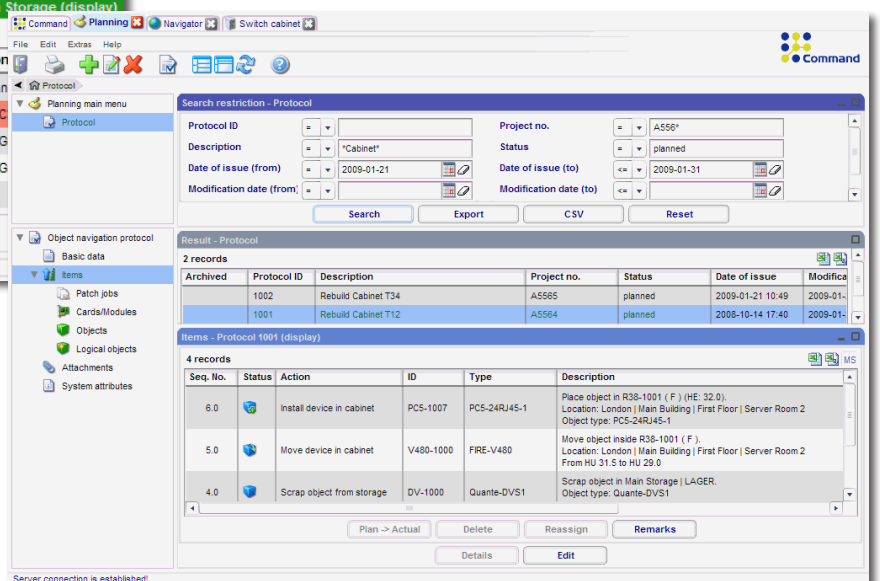
// Netspider

A marked object can also be displayed in the view of a netspider. Here, the connected cables and their following objects are represented as well as further additional information such as, for example, type, ID, location. It is also possible to call the signal tracing from the objects of the netspider.



// Operating Instructions

With the operating instructions for patch orders, new installations and relocations, C line provides standard forms which are created automatically when working with C line. A sequence of operations for the editing is offered with the workflow from C base.



// Tray Management

The complete management and documentation of a tray infrastructure is made in the *Tray Management* Command software unit. Both in-house-relevant infrastructures, such as sill channels, raised floors, rising trays, cable racks, etc., and regional or inter-regional routing (trenches, micro-ducts, pipes, etc.) are considered. It is also possible to assign tray segments or ducts (pipes) to cables. This documents a

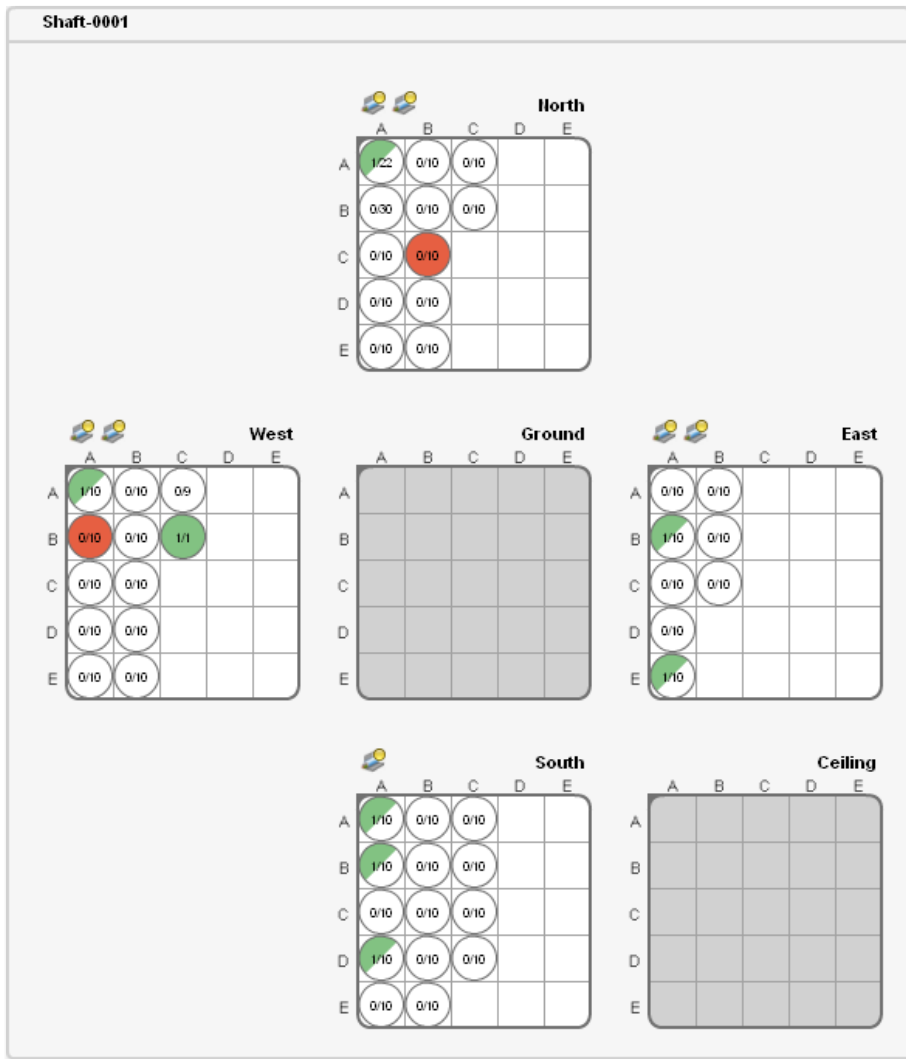
such as shaft, mast, opening, building service entrance, continuity junction box, branch junction box, etc., and also given geographical information.

Ducts can be documented completely with details of the side and location (including loading calculation). Easy-to-use routing mechanisms support the creation of complete tray and cable routes. A shaft

editor can graphically display and process shafts with all sides. A graphical representation of nodes and routes is fully integrated in the Network Spider Command software unit. The connection of interfaces to GIS systems allows tray routes to be created and planned graphically. The data is transferred at runtime to the Command database.

// System Requirements

The basic package C base is a prerequisite for C line.



geographical route of a cable. A tray segment route connects a node with another node. Segment contents (ducts and cables) are shown in a table with all required details. The differentiation between main and secondary trays is also possible. Nodes have various variants,