

## New Version 6.4 PC and System Architect Planned Release: October 2004

Category: PC- /SystemArchitect

Content: Tool Change

### Overview of the new functions / Useful for the user

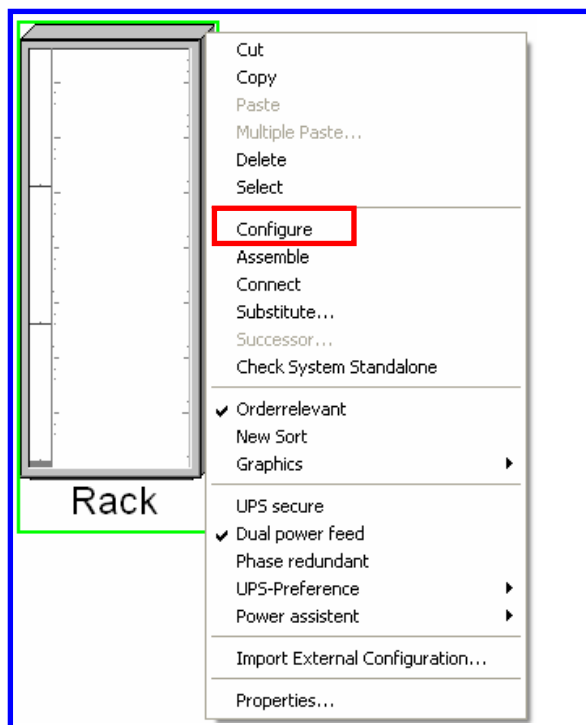
- Configuration view also for racks  
all rack components can be found easily (Options, Services);  
unique handling
- Additional manufacturing hints  
better information flow; improved delivery quality
- Resolve conflicts by reduction  
Quicker conflict resolving
- Cable plan – sorted by systems  
Enhanced user documentation
- Better structure in „Add Cable“ and „Find Cable“  
Improved creation of configurations
- Global search function for all components  
Quicker access to any component
- Visibility of storage products \*  
Certain storage components can be found easily
- Dynamic power calculation \*  
correct calculation of required cables and power for  
components with varying consumption
- Automatic calculation of SETUP-Fees  
correct calculation of customizing services
- Many changes in cable view  
better operation, better evidence

**Several small changes**  
**better operation, better evidence**

\*) These functions are already available since V6.3.5, but described here only.

## Configuration View also for racks (only SA)

- Up to now in the System Architect (SA) the 'invisible' built-in components of a rack (with height 0) were found in the basket beside the rack. Loose parts (options) were filed in the yellow box within the standard view.
- A description of the following rack components or rack facts was not possible at all:
  - Services
  - Price overviews of rack add-on products
  - Controlling of user's data entry with 'Check on the Fly' – yellow, red and grey fields
- For this reason in V6.4 the rack-basket was dissolved and replaced by the normal configuration view of a system. The menu option *Rack Add-On Components* in the context menu of a rack was replaced by the function *Configure*. Additionally loose rack add-on products will not be indicated anymore in the yellow box. Thus every rack and any other component, which puts a rack at disposal (certain STORAGE- and PRIMEPOWER-Systems), is a usual system, if it concerns the configuration of the invisible components.
  - Distinction between built-in components and option – in each case differentiated with respect to hardware, software and services.
  - User Information by yellow, red and grey fields
  - Overview and prices of the here configured components. If a rack was selected, in an eventually opened price window the total price of the rack with all built-in components will be indicated.
- The configuration view can be opened either by clicking on the context menu function *Configure*

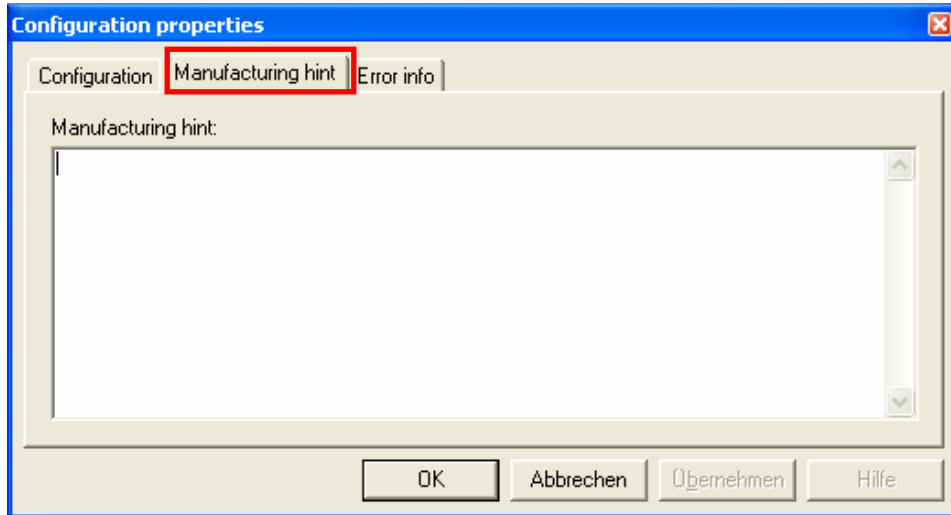


or by **double-clicking** the **rack frame** or the **grey surface** in the opened rack view. There are some exceptions for the double-clicking function:

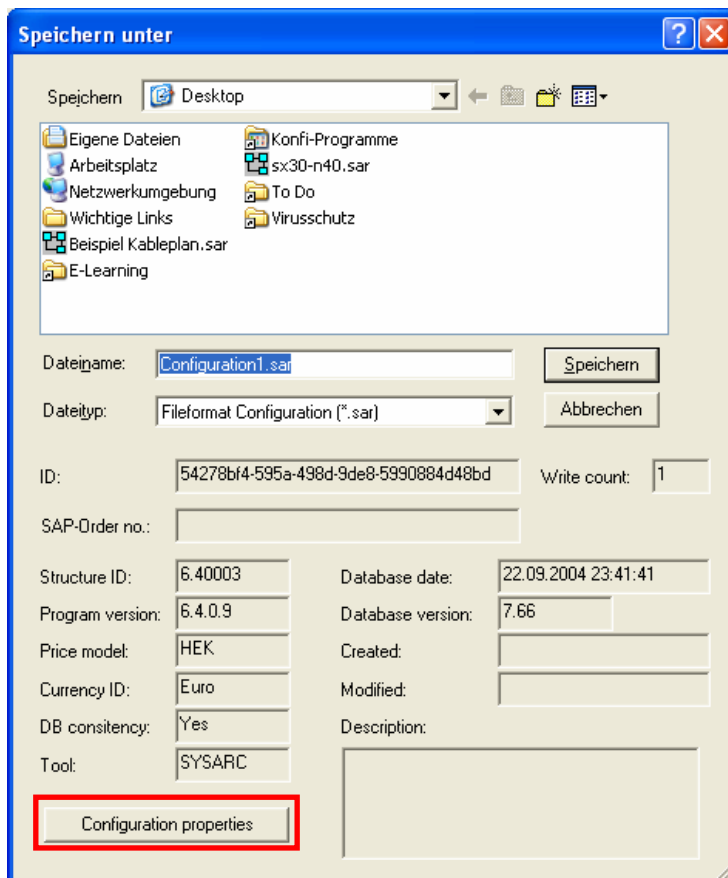
- PRIMEPOWER-multi-rack-systems the partition view is started on the grey surface, as it represents the entire system
- Partition able built-in racks (PW900, ...) the partition view will always be started here, as here frames and grey surface represents the system.

### Additional production details (PCA & SA)

- The file properties of a SAR-File were extended by the tab *Manufacturing hint* in order to deposit appropriate information.



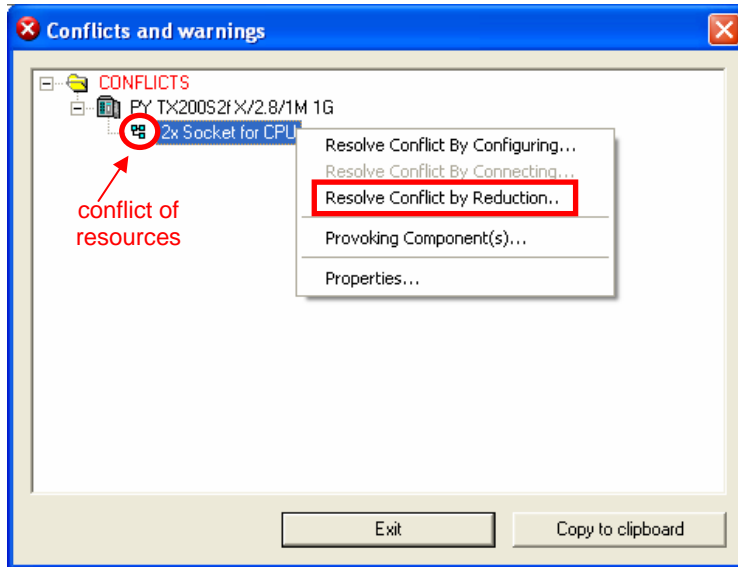
- In the new dialog field *Save As* the same data fields will be indicated as well as *Open File*. Additionally there is the possibility to open directly the file properties without leaving the *Save As* dialog. Thus changes of properties and reference texts can be changed easily at that time.



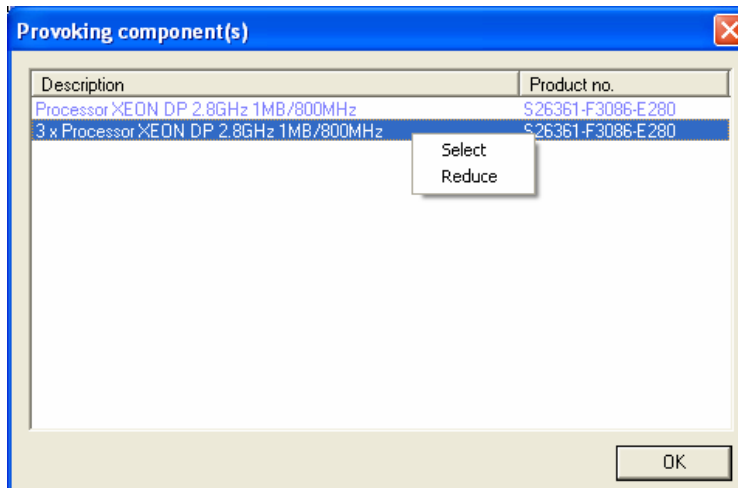
- The editable properties texts of the previous versions (entered in tab *Configuration* within properties dialog) and the new added manufacturing hints are issued by the exports 'order report' and 'EXCEL'.

### Conflict resolving by reduction (PCA & SA)

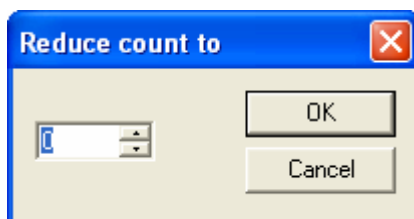
- The past concept of the conflict resolving was based on the rule that conflicts and warnings were to be solved only by adding components.
- With the new Version 6.4 it is now possible to delete the cause of a conflict directly out of the conflict window. In the PCA and the SA a context function was added which is available for any conflict of resources. These conflicts are recognizable by the Sys-Arc-Symbol.



- After selecting the function all causes of the conflict are indicated. After selecting a cause a further context menu will be available.



- The function *Select* highlights the component in all other views while the function *Reduce* queries the number of all components to remain in the following dialog.



- Should the cause be a component with number '1' *Delete* will be indicated instead of *Reduce*.

### Cable plan – sorted by systems (only SA)

- The cable plan, which was always displayed in the order report and in the EXCEL-Export, takes as filter criteria the chosen cables. The connectors at the ends and their connectors are indicated. This order is of advantage for the primary cabling, but unsuitable for the documentation 'which systems are connected'.
- With Version 6.4 an additional cable plan was implemented, which is **exclusively** indicated in the EXCEL-Export because of its necessary landscape format. A print-out of this cable plan can be used e.g. for the documentation of the rack cabling. Thus it is possible to recognize or modify simply existing connections after months.
- The cable plan will be entered in the new tab *Cableplan2* and will be sorted by systems. These are separated by grey headlines. Multi-level cabling (e.g. system – KVM- adapter – KVM-switch) are documented over several lines.

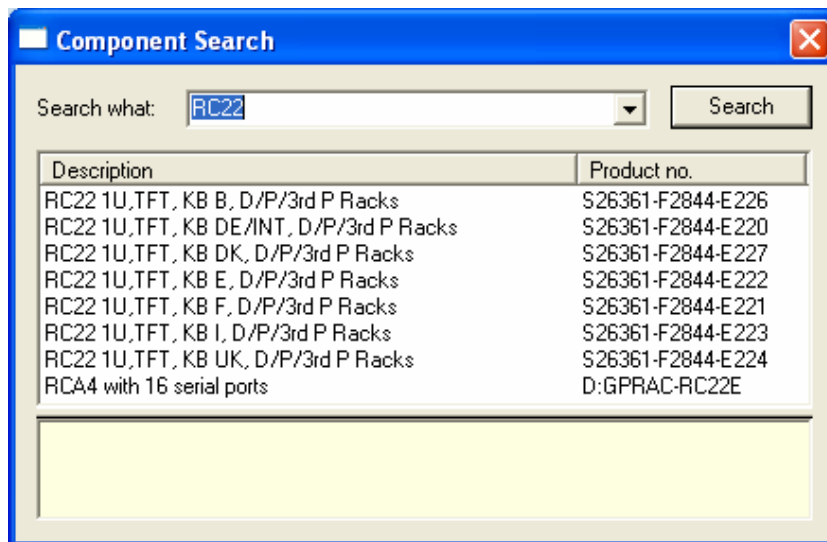
PRIMECENTER Rack 38 U, 1000 mm deep, stackable -> PY RX800-4 4xU/2.20/2M 2G															
From	Component/ Cable	Order number	Pos in HU	Slot	Connector	Using Connector	Cable	Order number	Connector	To	Connector	Component/ Cable	Order number	Pos in HU	Slot
19	PY RX800-4 4xU/2.20/2M 2G	S26361K924-V122	H25				Connecting cable -->		AC IEC320 10A	AC IEC320 10A (Ph 1)	Socket strip 3phase with 3x8 Euro sockets	PRIMECENTER Rack 38 U, 1000 mm deep, stackable	S26361K926-V103		
21							Connecting cable -->		AC IEC320 10A	AC IEC320 10A (Ph 1)	Socket strip 3phase with 3x8 Euro sockets	PRIMECENTER Rack 38 U, 1000 mm deep, stackable	S26361K926-V103		
24					VGA SubD-15	VGA SubD-15	Konsolswitch KVM S2 adapter PS/2-VGA	S26361F2293-E201	PS/2 Keyboard	PS/2 Keyboard	PS/2 Keyboard	PY RX800-4 4xU/2.20/2M 2G	S26361K924-V122	H25	
25												PRIMECENTER Rack 38 U, 1000 mm deep, stackable	S26361K926-V103		
26									PS/2 Mouse	PS/2 Mouse	PS/2 Mouse	PY RX800-4 4xU/2.20/2M 2G	S26361K924-V122	H25	
27												PRIMECENTER Rack 38 U, 1000 mm deep, stackable	S26361K926-V103		
29	Konsolswitch KVM S2 adapter PS/2-VGA	S26361F2293-E201			KVM RJ45	KVM RJ45	Konsolswitch Kabel KVM S2 CAT5 customized	S26361F2293-E501	KVM RJ45	KVM RJ45	KVM RJ45	Continued on next line KVM Switch KVM S2-1602 IU + assembly	S26361F2293-E602	H21	
30												PRIMECENTER Rack 38 U, 1000 mm deep, stackable	S26361K926-V103		
31					PS/2 Keyboard	PS/2 Keyboard	Konsolswitch KVM S2 adapter PS/2-VGA	S26361F2293-E201	VGA SubD-15	VGA SubD-15	VGA SubD-15	PY RX800-4 4xU/2.20/2M 2G	S26361K924-V122	H25	
32												PRIMECENTER Rack 38 U, 1000 mm deep, stackable	S26361K926-V103		
33									PS/2 Mouse	PS/2 Mouse	PS/2 Mouse	PY RX800-4 4xU/2.20/2M 2G	S26361K924-V122	H25	
34												PRIMECENTER Rack 38 U, 1000 mm deep, stackable	S26361K926-V103		
36	Konsolswitch KVM S2 adapter PS/2-VGA	S26361F2293-E201			KVM RJ45	KVM RJ45	Konsolswitch Kabel KVM S2 CAT5 customized	S26361F2293-E501	KVM RJ45	KVM RJ45	KVM RJ45	Continued on next line KVM Switch KVM S2-1602 IU + assembly	S26361F2293-E602	H21	
37												PRIMECENTER Rack 38 U, 1000 mm deep, stackable	S26361K926-V103		
38									PS/2 Mouse	PS/2 Mouse	PS/2 Mouse	PY RX800-4 4xU/2.20/2M 2G	S26361K924-V122	H25	
39												PRIMECENTER Rack 38 U, 1000 mm deep, stackable	S26361K926-V103		

### Find and Add cables (SA & PCA partial)

- Enhanced structure of cables, user can find available (and technical correct) cables in only **one defined place**. Three different (user) cases are regarded:
  - *Cabling between two components that are both part of this configuration:*  
Cabling takes place **exclusively** in the **cable view of the system architect**. The necessary cables are added to the configuration. Changes in the cable-configuration can only be made in the cable view.
  - *Cabling between two components, where only one is a component of this configuration:*  
For this scenario the configuration view of the known system is opened. All cables suitable for this component are offered in the tab **'Options'** (PCA & SA). The user will select the right cable, as he knows all facts. These cables are treated as loose delivery.
  - *Cabling between two components, where no one is part of the configuration:*  
For this typical subsequent delivery all available cables are offered in tab **'Add-on products'** (PCA & SA). The user selects the right cable. Assistance with the selection can be made via the assigned category or via the search function (order number or description).

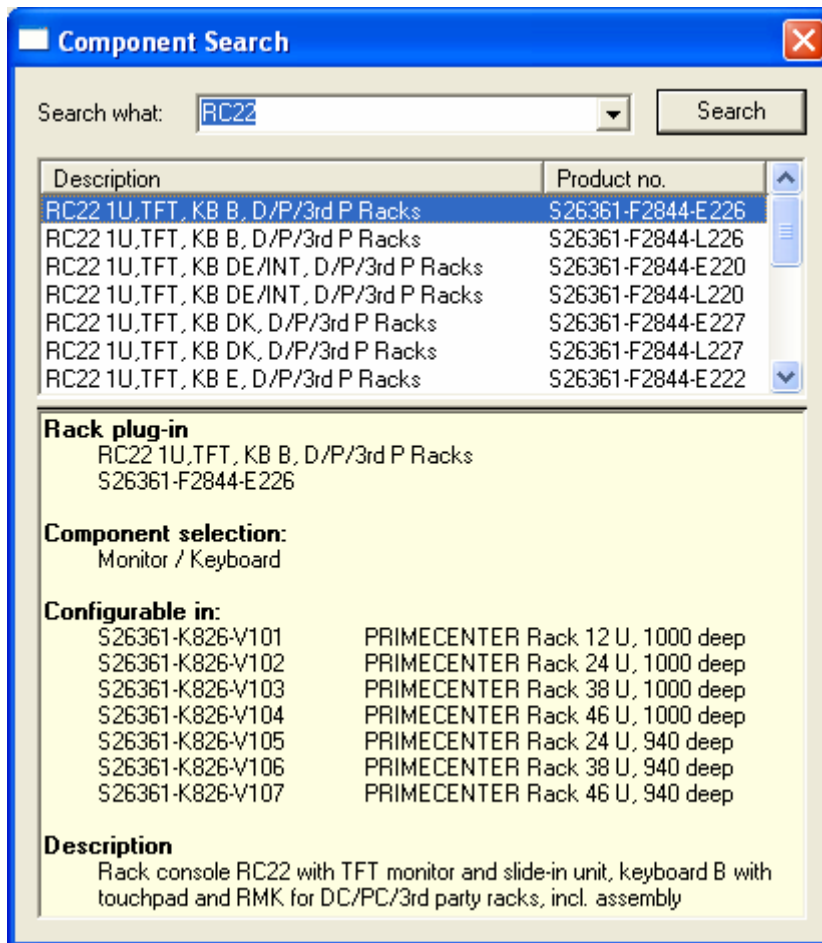
### Global search function (PCA & SA)

- With this function the user can find a certain component – only by the use of order numbers or component descriptions - within the databank of the system architect (not in the configuration!) With the input of the search word also partial data are sufficient – sometimes this will lead, however, to a large and unclear number of hints.
- The new function is started via menu *Edit - Component Search*. After data input a hit list will appear. All search words entered during a programme session are saved and can be recalled via drop-down-menu in the field search for.

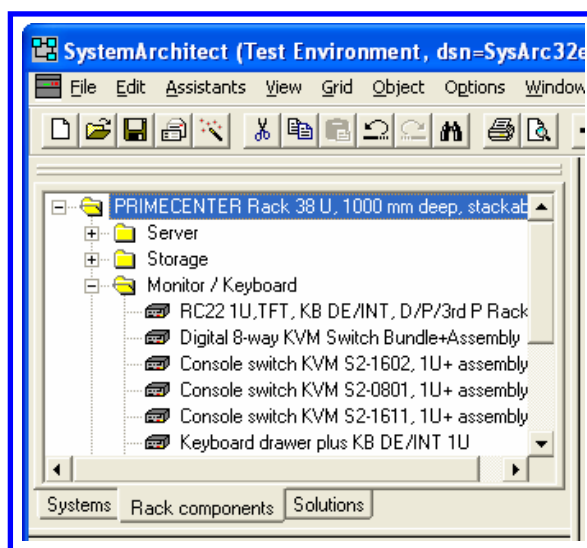


### Continued: Global search function

- After selection of one hit, the properties of the component will be shown.



- Those can help the user to accelerate the selection of a component. As shown in example above, the component can be used as rack plug-in in the displayed racks (these have to be part of the configuration). The component itself appears – if rack view is opened – in the file structure 'Monitor/Keyboard' (component selection).



- At a later point of time, a subsequent processing started directly from the results is planned

### Visibility of storage products

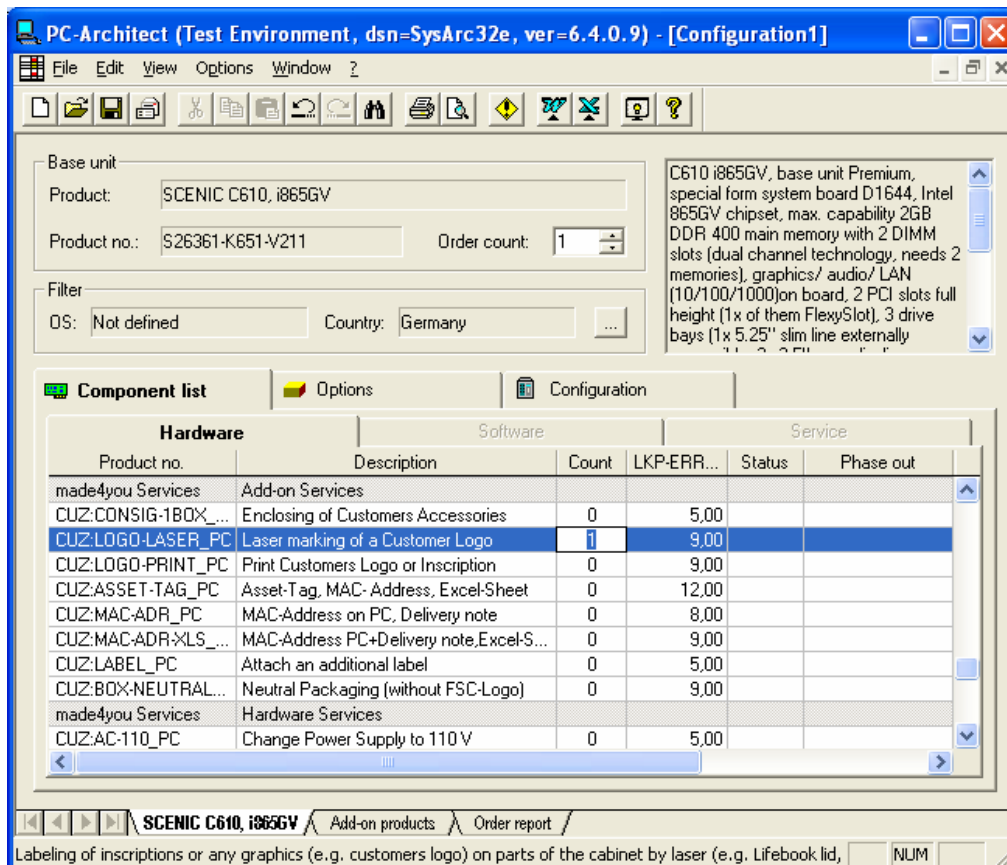
- Because of different manufacturing processes in two different factories there are two different order numbers for nearly all Storage products for the same component. These differ by the added ending '-Z'.
- Normally in the system selection tree of both architects (PCA and SA) **all** basic units will appear. In case of the Storage components every system would be offered twice (one time without '-Z' the other time with '-Z'). This was filtered then – only components without '-Z' are displayed.
- With the introduction of several storage systems which are offered only in the factory that needs ending '-Z', changes had to be implemented. Only with those changes these systems can be offered in the system selection. Affected systems are e.g. 'FibreCAT N20' and 'FibreCAT N40'.

### Dynamic power calculation (only SA)

- With few exceptions all servers and other power using components are conceived in that ways that all power supplies available in the basic configuration are sufficient for the complete configuration regarding their efficiency. All additionally added power supplies increase exclusively the redundancy to compensate failures of power supplies or phases during operation, but not the power consumption of the system.
- However specific components (e.g. blade frames BX600) requires a different number of power supplies dependent on the configuration.
- The testing regarding the correct number of power supplies has already been realised in Version 6.3.5. Such systems lead to capacity differences in the overview 'Planning Data', in the order report and in the EXCEL export.
  - 'Normal' Systems require the VA values indicated in the planning data, unchanged also in the power supply.
  - A system with dynamic power calculation indicates the current requirements (dependent on configuration) in the planning data, while the maximum needs of the power supplies are based in the power allocation.

### Automatic Calculation of SETUP-Fees (PCA & SA)

- Within the product area PC and PRIMERGY so-called *made4you Service Products* (also called Customizing-Services), e.g. the printing of certain logos, the locking-in of certain hard disks, etc. are offered. For the usage of one or more of such *made4you-Services* a single Setup Fee will per charged per configuration
- In this context *Configuration* means one basic unit with any *built-in components* and any *made4you Service Products*. An n-multiple order of this basic unit in the **PC-Architect** (field *order count*) is also only **one** configuration. In the System Architect such a multiplying function does not exist. Every single system is already one configuration.



- So far the correct order of the set-up fee in the architect could not be verified. As this fee will be charged with 1,000-3,000 EUR, it has to be reported correctly in the order.
- The amount of the (per configuration) SETUP-Fee results from component-specific rules, which are deposited for each *made4you Service product*.
- With the new version the correct set-up fee for the current configuration will be calculated automatically and inserted into the configuration (as add-on products). This happens, however, only while preparing an export (ASK, order report, WORD or EXCEL), as only all systems and services are fixed then. This results that the correct total amount of the configuration will be displayed in **these exports only** – not in the tab *order report*.

## Changes in the cable view (only SA)

- **Grouped connectors**

Two new features in this function:

- All connectors of the same group are aligned to one side in the cable view. Enhanced indication of adapters (e.g.) and simplified manual cabling.
- It will be checked within cabling, that all connectors of one group will be plugged to one corresponding system.

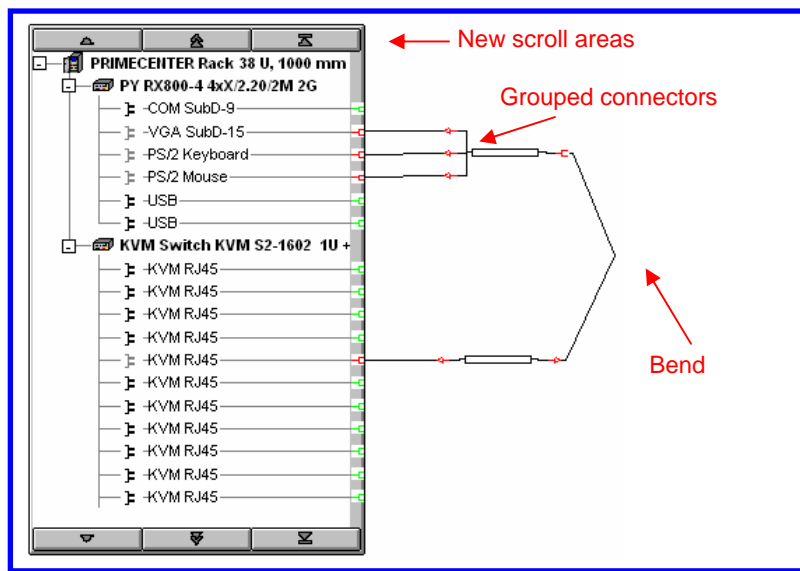
- **Quick navigation in the cable view**

With the three new buttons, on for each cable box shown at the upper and lower margin, the user can scroll quicker. This function is additionally described by an appropriate tooltip on the buttons.

- Left area – scroll per line
- Central area – scroll per page
- Right area – position on first and/or last line

- **Introduction of a bend**

Enhanced overview as overlay of vertical running connections is avoided

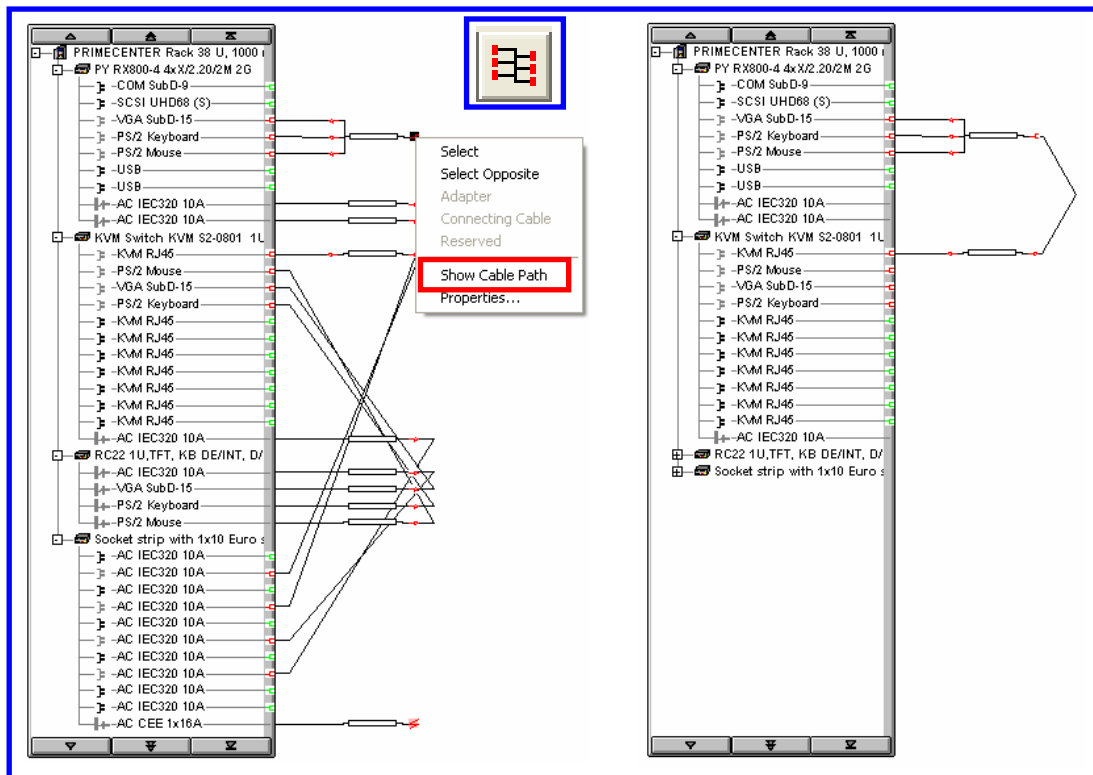


### Continued: Changes in the cable view

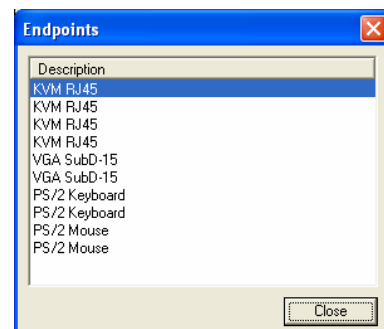
- **Indication cable path**

Despite of small component selection and set connector filter the indication in the cable view can be unclear due to too many connections. With the new function, available exclusively in the cable view, only those connections are displayed which exist with the selected component.

- After selection of a component (Server, rack plug-in, socket strip,... generally 'Knots') all connection and knots are displayed with connections
- With selected connector or cable all connections and knots are indicated until the endpoints of the knots are reached.
- All not involved knots are indicated reduced, however, they can be opened again by clicking on '+'.  
○ All not involved connections are not indicated.
- A possibly set connector filter acts additive
- By reloading the cable view (repeated opening of cable view) the function will be deactivated automatically.
- The function will be activated and deactivated by the new context functions *Show cable path* or by clicking on the new function button. The picture below shows the situation 'before' in the left part – the result of the function in the right part.



- Additionally the function *select Opposite* was enhanced in that way that - regarding the selected starting point – not only the direct 'opposite' is selected, but all other connections being in the connection path. Those are selected separately by the user (see pictures).

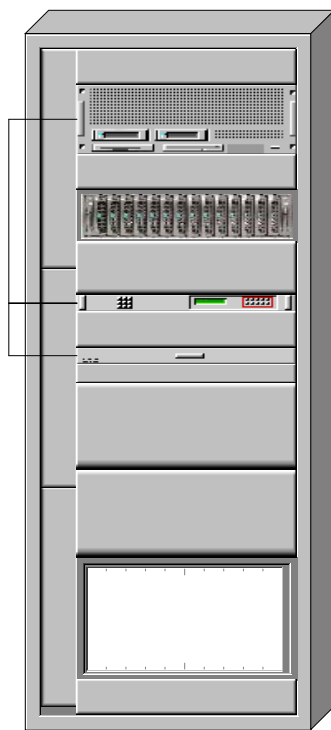


## Continued: Changes in the cable view

- **permanent tooltip for connectors**  
While graphic connection (linking) over larger distance in the cable view it could happened that the exact connector description of the original point was no longer relevant and the connection was cancelled early by the user (release of the left mouse button).
  - In the new version the connector description is always indicated as tooltip as long as the linking has not been finished.
  - The background colour of the tooltip will change. As soon as the pointer is on the 'Start-Connector' it will be displayed with yellow background. While linking the colour changes to blue – contains as text the description of the Start-Connector. Colour changes to yellow over the target, the description of the Target-Connector, however, will be displayed.
- **Unique descriptions for components with connectors**  
Due to the unique name of a component, there is a useful help for the user in form of a clear 'Target-Identification'.
- **Unique order of a component's connectors**  
The indication of existing connectors was not constant with more identical existing connectors for one component. After re-opening the cable view a new order was displayed, which was technically still correct.
  - In the new version a clear ID for each connector is distributed. This ID controls also the order of the indication. The ID keeps its validity until the component is deleted or replaced by another, i.e. after replacing a component the order of the connectors could be possibly changed. However, this new order will remain while further processing.

## Several small changes

- **Export of preset power-attributes (only SA)**  
In all rack graphics the settings of power attributes chosen by the user are displayed. They are filled in brackets behind the component.



- 36 - 37 Dummy Panel 2 HU
- 32 - 35 PY RX800-4 4xX/2.20/2M 2G [Ph-Red, UPS]
- 30 - 31 Dummy Panel 2 HU
- 27 - 29 S80FC Base Unit [DPF, UPS]
- 24 - 26 Dummy Panel 3 HU
- 23 - 23 KVM Switch KVM S2-1602 1U + assembly [Mono-Ph]
- 21 - 22 Dummy Panel 2 HU
- 20 - 20 RC22 1U.TFT. KB DE/INT, D/P/3rd P Racks [Mono-Ph]
- 19 - 19 Dummy Panel 1 HU
- 14 - 18 Dummy Panel 5 HU
- 9 - 13 Dummy Panel 5 HU
- 2 - 8 PY BX600 Blade Server System Unit [Mono-Ph, UPS]
- 0 - 1 Dummy Panel 2 HU

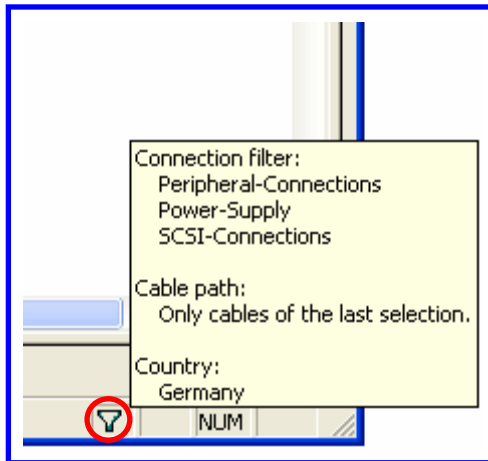
## Several small changes

- **permanent indication of filter settings (only SA)**

a new icon will be displayed as soon as one of the following filter has been activated:

- Under *Options – Country* another filter than 'all' is adjusted
- A connection filter is activated
- The function *Show cable path* is activated

The exact filter settings are displayed as tooltip, as soon as the user moves the pointer over the icon.



- **Visualization of temporarily long processes (only SA)**

Already since version 6.3.5 a status indicator with changing content is opened which shows the user the activity of the application instead of a simple hourglass. This functionality was extended for:

- Checking of context rules (programmed testing instead of resource balancing)
- Courses within power assistant

- **Tooltip on button Selective Testing (only SA)**

To clarify the differences between the testing properties in the System Architect the tooltip for the right button has been adapted correspondingly.

- **Replace on itself (PCA & SA)**

Due to reasons regarding database performance the function *substitute* was ignored, if the component should be replaced by itself. In some situations existing DB integrity conflicts could not be solved by the function *substitute* for the component itself. In the new version the advantage of performance will be disclaimed in favour of the function *substitute*.

## Generally hint (only SA - independent from version)

During the selective testing of one single system it could happen that conflicts are indicated although there are already solved by external cabling. As the solution of this conflict is not part of the selection, the SA cannot realize that the conflict has been solved and so it shows a corresponding conflict.

The control function of the yellow and red fields in the configuration view correspond exactly to this selective testing, as at this time the focus is exclusively directed to this system. So it could happen, for example, that in the configuration view of a system the hard discs are marked yellow, although a disc subsystem was already configured and connected with cables to the system.

To achieve a correct result regarding the accuracy of the entire configuration only the function *check all* can be used.

For advanced information and training:

## Training Offer

**Training Programs are offered on the topic of 'Configuration Tools' and can be adapted to meet the needs of the individual participant group.**

<b>Course objectives:</b>	To provide a functional and performance overview To create simple and complex configuration To provide practical experience of tool handling through exercises
<b>Target group:</b>	Technical consultants, sales employees (with and without previous knowledge of the tool) with the relevant product know-how
<b>Language:</b>	German or English
<b>Duration:</b>	3 hours to 2 days (depending on individual needs)
<b>Possible Topics:</b>	Configuration of individual systems Assembly of racks and rack modules HW-Partitioning for PRIMEPOWER systems External cabling Plausibility checking Creation and use of configuration templates Import and Export functions
<b>Contact:</b>	<a href="mailto:christian.buechner@fujitsu-siemens.com">christian.buechner@fujitsu-siemens.com</a>

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