

WireCAD v8 User Manual

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Getting Started with WireCAD v8

by Holbrook Enterprises, Inc. dba WireCAD

WireCAD v8 User Manual

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Printed: July 2015

Publisher

Holbrook Enterprises, Inc. dba WireCAD

Special thanks to:

All the people who contributed to this document, to Lisa for being a WireCAD widow. And the kids for being willing to start over in Idaho.

Thanks to Brandon for unsexy words like html, and php.

Thanks to the Sales and Support teams.

To Tim and Barb for their excellent support.

And a very special thanks to all of you WireCAD users, and you know who you are, that help to make the program better!

Christian Holbrook President

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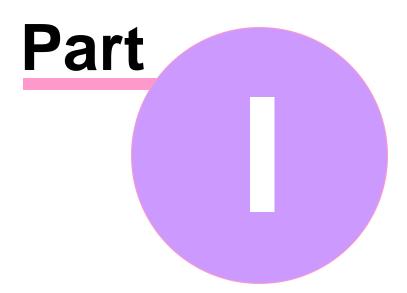
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Foreword

The manual is not an exhaustive study of WireCAD, but rather enough information to build a foundation upon. We maintain a wiki site with this and much more information. You can access up-to-the-minute documentation along with revision and hotfix information online at www.wirecad.com/wiki.



1 Introduction

Welcome to WireCAD. WireCAD tools aim to decrease the frustration associated with creating accurate, detailed documentation. WireCAD produces DWG compatible drawings accompanied by either VISTADB or SQL Server databases containing all pertinent project data. WireCAD is a cable management and facility design tool that allows you to easily create AutoCAD[™] drawings. WireCAD maintains a database of equipment, from which you can create equipment blocks for your drawings. Equipment blocks are created dynamically from information stored in the equipment database. Rather than maintaining a large library of equipment blocks or symbols, WireCAD stores this information in a database and then creates blocks from the equipment definitions contained therein. Equipment definitions are easily added to the database. In addition to equipment databases, WireCAD also provides drawing tools to rapidly create documentation, and database management tools to track:

- Projects
- Drawings
- Revisions
- Cable Types
- Signal Types
- Connectors

Things really start to fly when it is time to assign System Names (unique IDs) and Cable Numbers to the equipment in your drawing. All you do is double-click on the equipment pieces in the drawing to assign them a system name. Then double-click on the cable and assign it a cable number. All of the information regarding the selected cable is extracted from the drawing and placed in the project cables database and the drawing is updated with a new cable number.

Extensive reporting is available for the project databases including:

- Cable run sheets
- Cable labels
- Project drawings
- Equipment lists
- Bill of Materials
- Power consumption and heat load

In addition, a powerful report designer is included with WireCAD for creating your own reports and labels, or modifying existing report definition files.

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1.1 New in Version 8

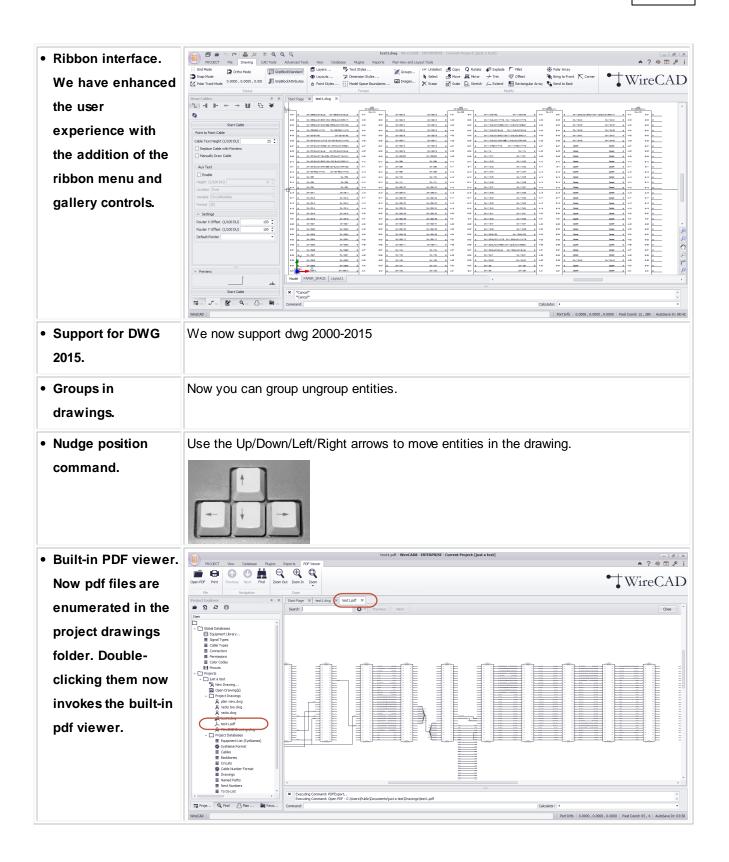
The short list of feature additions and changes in the current release:

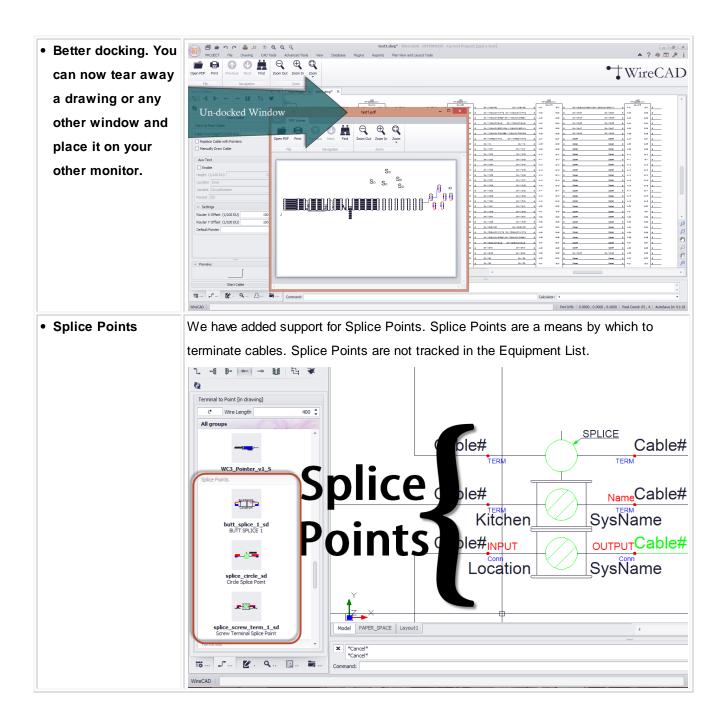
Headlines:

- Plan view tools
- Cloud storage
- Faster drawing engine
- Faster data access
- Support for Splice Points and Adapters

New Features







Adapters	Adapters are placed directly on functional block ports and inherit the port name and				
SysName from the device on which they are placed.					
	Dever Calles				
	ANALOG HD15M MUX-001 ANALOG DXLINK RJ45				
	kettaad_ret_1_nexys_s Rectarge Adaptor AUDIO Statustick Adaptor Kitchen, counter				
	HDMI HDMI HDMI HDMI				
	USB-MINI USB-HOST MUX-001				
	Kitchen.counter				
	Image: State of the state o				

Details

- We have modified the project database to store the drawing file as binary data in the database and to sync with files on difference machines.
- We have modified the drawings table to work with relative paths in support of the previous item.
- We have added plan view fields to the Equipment Library.

1.2 Conventions and Terminology

This manual attempts to follow these conventions. We use the word attempts because we are human and therefore fallible.

Topic Header

8

Monu: Datah	Menu: Databases>Projects	Applies To:	
	-		All product levels
	Default command line shortcut: None Function:		d Settings:
	A description of the function goes here.		None

Chapter Heading

Menu: **Databases>Projects** Default command line shortcut: None Function: A description of the function goes here.

Noteworthy Changes

New Stuff



Items or functions that are significantly different from previous versions will be flagged with this symbol

Normal Paragraph Text

Normal paragraph text appears like this.

Text You Must Type or Enter

In the event that you are required to enter text the instruction will be formatted as follows: Please enter the path to the project in the textbox.

How To Topics

How to do something

- 1 You must do something ..
- 2. Then something else.

Notes

Please Note: Notes will look like this.

Text That Identifies or Explains a Graphic

AutoSave : one dwg.dwg*			
Command:	Calculator:		
This is the Command Line Interface			
Button Presses			
When you are Instructed to press a butto not shown the text will be formatted as ir		and the button gra	phic is
Press the [Start Cable] button to contin	iue.		

Menu Button Presses

Menu button presses will be formatted using the > symbol to indicate subsequent menu levels. If you are required to select a specific function or tab the ~ character will be used to indicate a selection to make once the form, dialog, or function executes.

Example: Click Tools>Inserts>Insert... ~ <OK> Then follow the directions...

Field Names or Other Program Labels

Field Names and Labels.

Warnings

In the event that we feel something is important or could possibly damage a project or drawing we will issue warnings as follows:



Tips

Tips are displayed as follows:



What we Call Things

ltem	Image			
Button			Start Cable	
Text Box, textbox, text edit or entry field.				
Combo box or			Normal	\checkmark
dropdown: Clicking the arrow on the right will drop a scrollable list.				
Tabs or tab	Model 📄 PAPER_SPACE	ANSI_AHC	ANSI_AV	AI
collection: When prompted to select a tab the caption text will appear as follows: Select the Find Equipment tab.				
Property List:			Collections	11 Items
Information about the			XProperties Geometry	A A A A A A A A A A A A A A A A A A A
			EndTangent	
active property is			_	0.0000,0.0000,1
displayed at the			Flag	PIFlagOPEN
bottom of the list.			Knots	0 Items
			SPlineFlag	SFlagSTANDARD
Highlighting a			StartTangent	=
property causes it to			Thickness	0.0000
enter edit mode. You			VertexList	4 Items
			Weights	0 Items
can then enter data in			Hatching	•
the field on the right.			Hatch Properties	
			Misc	*
Please Note: the			Handle	148085
field on the right-			HighLight	
hand side of the			Label Layer	AES
			Layer Line Type	ByLayer
property list may be			Line Type Scale	
referred to as a textbox, combo or dropdown				

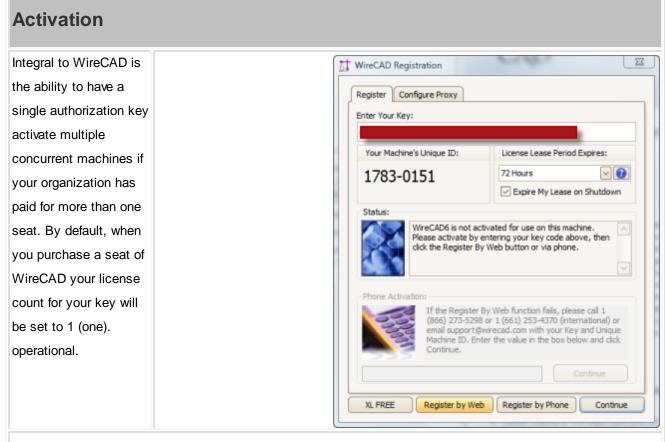
depending on its type and function.	
Ellipsis button: Pressing this button in what ever the current context will bring up a context sensitive dialog.	select connector
Checkbox	Replace Cable with Pointers
Listbox	SRVR-181 @ asdf.asdf-[360 SYSTEMS-Ir

1.3 Software Activation

WireCAD v8 offers 4 program levels:

XL FREE, XLT, PRO, and ENTerprise. XLT, PRO and ENTerprise require authorization keys in order to activate that level of the software. An activation key is all that is required to change program levels. If you have questions about the licensing scheme <u>click here</u> 23.

<u>Floating Licenses</u> ाभी <u>Floating License Leases</u> ाभी <u>How To</u> ाडी <u>Troubleshooting Activation</u> 17

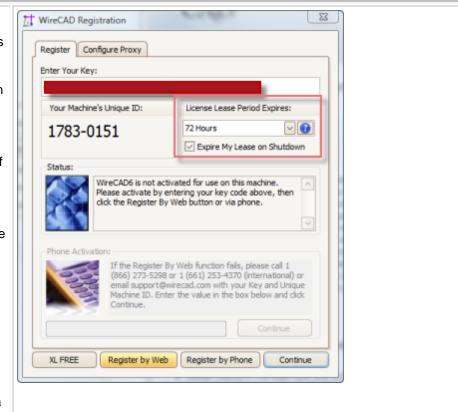


This will allow 1 (one) machine to be active at a time. You may install WireCAD on any number of machines throughout your organization; However, only one (or your license count) machine will be active at any given time.

Floating License Lease

Activation

The mechanism by which we float licenses is the license lease. Leases have expiration periods of 24, 48, 72, 168 hours and Never. During the activation of your software you will be prompted to pick a lease period. The lease period is period during which the software will run while being disconnected from the web. When you activate the software you are prompted for a lease length.



Once activated the application will run for the lease period. If you close the application while connected to the internet you will expire the lease; thus making it available to another machine. Upon application startup the license is validated and a lease is acquired automatically if web connected. If you cannot connect to the web you will need to phone WireCAD support at:

1 661.253.4370 international.

1 866.273.5298 US and Canada toll free.

How To: Activate WireCAD

Activation		
Enter your authorization key (it's the really long one that ends in 70. If you fail to enter the key correctly you will not be able to proceed.	Enter Your Key: T0	
If you are web connected click the [Register By Web] button. If everything goes well you will see this message in the Status window.	Status: Activation succeeded! Thankyou.	
If you are not web connected you will need to call us at: 1 661.253.4370 international. 1 866.273.5298 US and Canada toll free. Click the [Register by Phone] button.	Register by Phone	

Activation		
You will be prompted by the WireCAD technician to set Lease Period to Never. The WireCAD technician will ask for your authorization key (it's the long one) and	License Lease Period Expires: Never Expire My Lease on Shutdown Your Machine's Unique ID: 1783-0151	
your Machine ID.	Yours will be different	
The WireCAD technician will then read a series of numbers to you. Enter these in the Register by Phone text box.	Phone Activation: If the Register By Web function fails, please call 1 (866) 273-5298 or 1 (661) 253-4370 (international) or email support@wirecad.com with your Key and Unique Machine ID. Enter the value in the box below and click Continue. Continue	
Next click the		
[Continue] button. You will receive a message box indicating the success of the activation.		

Activation

The following are a few reasons your activation by web will fail:

- 1. Not connected
- 2. Lease already in use by another machine
- 3. Authorization key abuse
- 4. Authorization key not found in the database
- 5. Your machine Date/Time is more than twenty four hours out of sync with our web server (UTC).



If you wish to avoid the floating license scheme simply select Never as the lease length during activation. You will then lock the authorization key to that machine.

1.4 License Agreement

License Agreement

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Should you have any questions concerning this Agreement, you may contact Holbrook Enterprises, Inc. by writing to: Holbrook Enterprises, Inc. 1112 6th Street South Nampa, ID 83651 (866) 273-5298 US and Canada (661) 253-4370 International You acknowledge that you have read this agreement, understand it and agree to be

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bound by its terms and conditions. You further agree that it is the complete and exclusive statement of the agreement between us which supersedes any proposal or prior agreement, oral or written, and any other communications between us relating to the subject matter of this agreement.

1.5 Licensing FAQ

The following are some frequently asked questions about the WireCAD licensing scheme.

Q: Does WireCAD support floating licenses

A: Yes, if you choose to use the function it is built in to both XLT, PRO and ENT. You may disable this feature by selecting the Never expire option on the License Lease Period dropdown at activation time. Choosing to do so limits that Authorization Key to that machine only.

Q: How many machines can I install WireCAD on?

A: You may install WireCAD on any number of machines. You will only be able to launch WireCAD on as many machines as your license count supports. The default license count is 1. If you wish to purchase additional licenses you may want to consult with your WireCAD sales professional who will help you decide the best course of action.

Q: I have a laptop and a desktop WireCAD used to let me install on both. How come I have to choose?
 A: You don't. WireCAD will still install on both. It will only run on one at a time.

Q: What happens if my machine dies?

A: If your machine dies and you are using the floating license scheme, one of two things will happen:

- 1. Install WireCAD on the new machine an wait for your lease to expire in what ever lease expiration period you selected (not optimum, but serviceable).
- 2. Call the WireCAD sales team. They can manually expire the lease for you. You will need your authorization key and company name, as well as the machine name of the machine that died.

Q: I am not connected to the internet very often, can I still use the floating license scheme?

A: We recommend that you use the floating license scheme only if you are regularly connected to the web

Q: I am going on-site. How to I ensure that my copy of WireCAD will stay active while I am disconnected from the web?

A: If you are using the floating license scheme and you know that you will need to be occasionally connected for a short period of time (one week or less). Click Application Menu > Settings[Application Settings] set the Release License on Shutdown to false. This will ensure that only your machine has the license for up to the lease period. If you are not sure how long you will be gone, follow this procedure:

- 1. Click Help>Control Software Activation.
- 2. Click [De-activate this Copy of WireCAD]. You need to be web connected. Make sure that the server responds that the license has been successfully released.
- 3. Set the License Lease Period dropdown to Never.
- 4. Click [Register by Web].

WireCAD will not require a web connection to start.

Q: What are the benefits of the Assurance Subscription?

A: A current Assurance subscription gives you the following premium benefits :

- Free major and minor version upgrades and hotfixes.
- Priority technical support.
- New samples, tips and how-to topics from time-to-time.
- Discounts on training.
- Access to beta products.
- Assurance Price Lock guarantees that your annual Assurance rate will not increase year-to-year as long as you remain current.
- Q: Does the license expire if the Assurance Subscription expires?

A: No. Your licence does not expire even if your Assurance expires. You can use the products indefinitely even after the Assurance subscription expires.

- Q: How long does my Assurance Subscription remain valid? A:Your subscription duration is for 1 year from date of purchase or renewal.
- Q: My Assurance Subscription is about to expire. What should I do? A:You must renew your subscription to continue to receive the latest versions for free along

with all the other benefits of the subscription. To renew your Assurance, contact sales@wirecad. com.

Note that you may or may not receive notifications from Holbrook Enterprises, Inc. dba WireCAD about the pending expiration of your subscription. It is your responsibility to renew your subscription when it is about to expire. You can renew your subscription as early as you want or opt for a monthly credit card payment.

Q: When can I renew my subscription?

A:You must renew your subscription before the expiration of your current subscription You can renew your subscription anytime before your current subscription has expired; you will not lose any days as the new subscription will come into effect on the day your current subscription ends. In effect, your current subscription will be extended by 1 year.

If you do not renew your subscription before the expiry of your current

subscription, your subscription is considered as lapsed and you will not be

eligible for free upgrades and other benefits anymore.

Q: My Assurance subscription has lapsed. How can I get the latest version?

A:Maintaining your Assurance subscription and renewing your subscription each year to keep it current is the best and the most cost-effective way to receive all new major and minor versions as they are released. In case your subscription has lapsed and you want to upgrade to the latest version you may simply renew your Assurance subscription at the current rates.

Q: Do you offer academic discounts?

A: We do have academic discounts if WireCAD will be used for education/research purposes. Please contact sales@wirecad.com for more information.

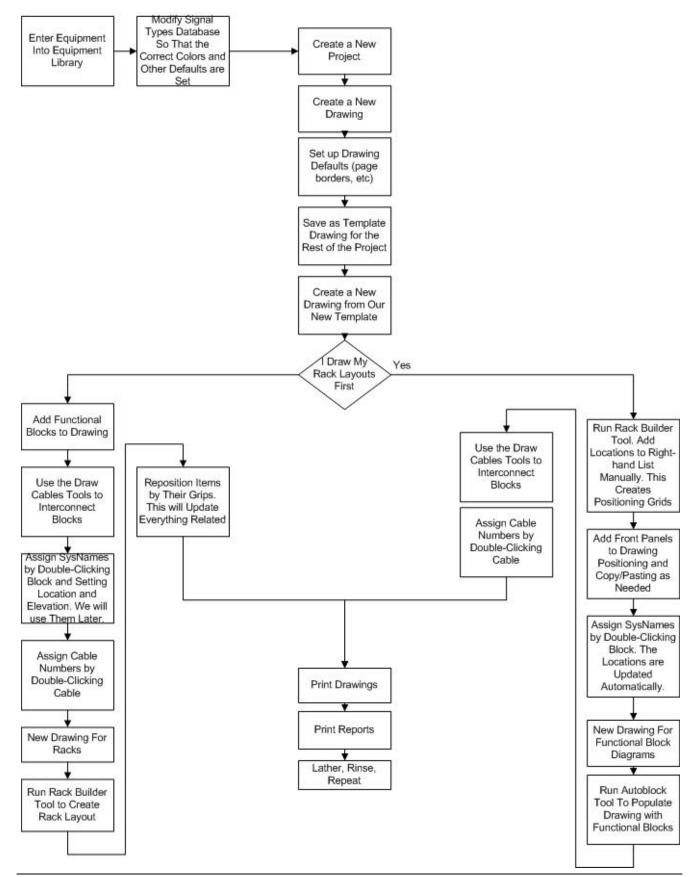


2 WireCAD XL, XLT, PRO

2.1 Getting Started

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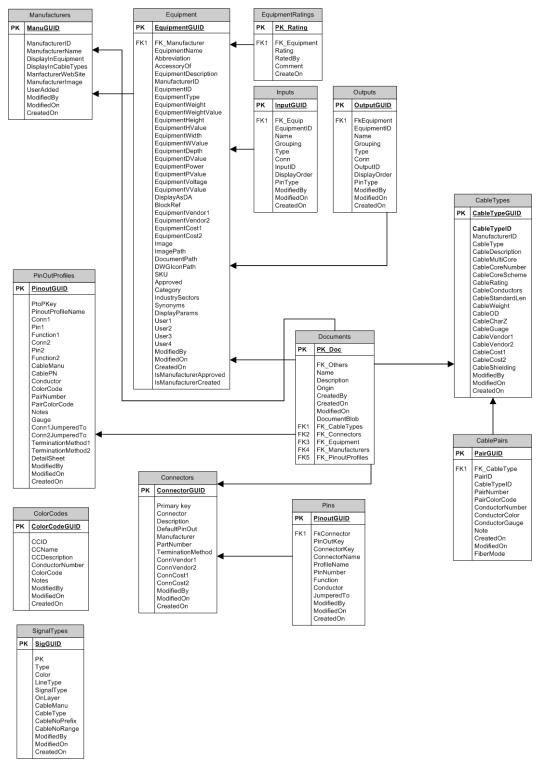


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2.1.1 Setting Up Your Global Data

Menu: Several	Applie	s To:
		All product levels
Default command line shortcut: le	Relate	d Settings:
WireCAD maintains a global database with tables representing		None
Manufacturers, Equipment, Signal Types, Connectors, Etc.		
Getting started with WireCAD entails setting up the global databases to fit		
your needs. While the database is populated with data you may find that it		
suits your needs to purge the data and start fresh. If this is the case we can		
provide empty databases. At the very least you will want to set up the		
Signal Types grid with your defaults.		
Next you will customize the Equipment Library with the products and IO		
that you use. In order to do this, you may either download existing products		
from the WireCAD Community Server or enter your own 34.		

Manufacturers - The topmost table in the heirarchy
Equipment - The Equipment description
Inputs - inputs of a device
Outputs - outputs of a device
Signal Types - signal types and a bunch of defaults.
Connectors - connector types.
Pinouts - pin out definitions (data).
Color Codes - color code lookup. Used by Cable Types.
Cable Types - cable type information.
Cable Cores - cores or conductor data for a cable type.



Global Equipment Library Schema (abrv)

How to Access the Equipment Library

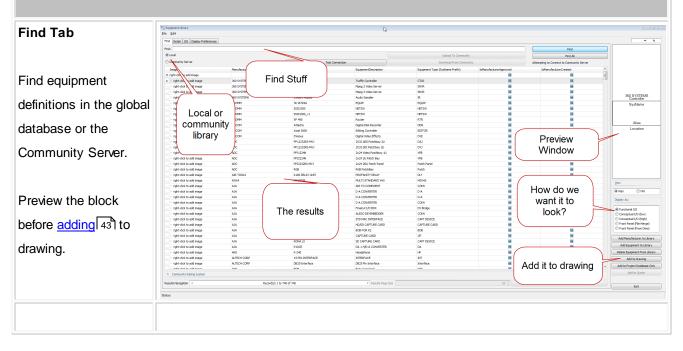
Equipment Library Access	
The Project Explorer allows access to some of the global data grids. You can also access all of the these grids from the Database menu.	Project Explorer Clobal Databases Clobal Databases Clobal Databases Clobal Databases Cable Types Cable Types Connectors Permissions Connectors Permissions Color Codes Projects Project In House Traini Project Databases Project Databases Colored Databases Connectors
Database>Equipment Library	Opens the Equipment Library where you will do most of your work.
With an active drawing the Equipment Library can also be opened from: Advanced Tools>Equipment Library	

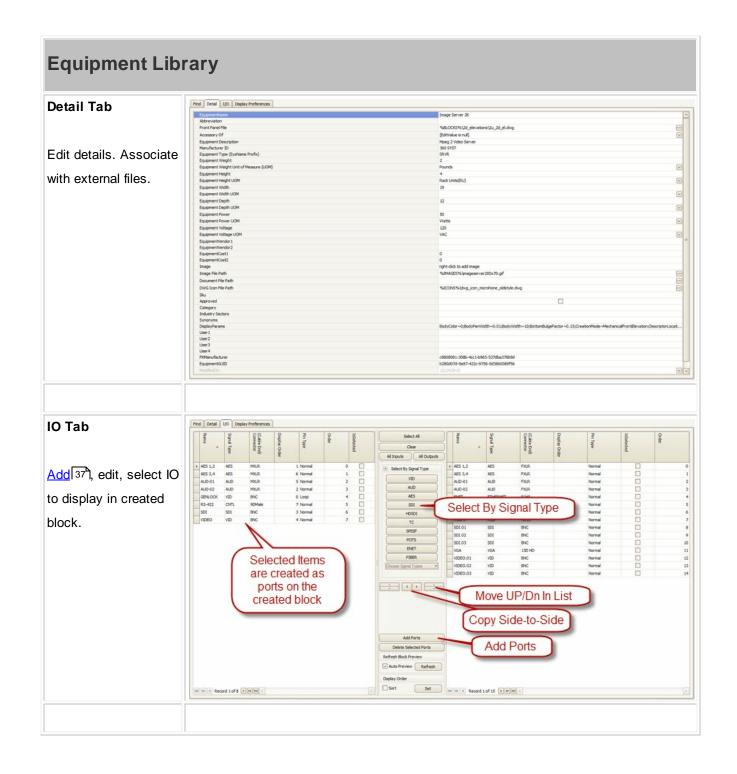
2.1.2 Equipment Library

Menu: Database>Equipment Library	Applie	s To:
		All product levels
Menu: Advanced Tools>Equipment Library	Relate	d Settings:
Default command line shortcut: LE		None

The WireCAD Equipment Library is where you will spend a fair amount of time as you get define equipment that you will use in your designs. This is also where we come to create CAD blocks in our drawings. There are many settings here that let you customize appearance. This chapter is the basics.

Equipment Library





Equipment Lib	rary			
Display Preferences	Stock Shapes Mappable Terminals User Defined Shap	es Mechanical Forms		
Controls the appearance of the created block.	A standard functional block appearance	A standard DA appearance	Functional Block with a tom bottom edge	Functional Block with a torn left edge
				(Edit Filter) 🗸
	Daplay Properties Basic Daplay Properties Body Nam Midth Body Woth Creation Mode Description Godown Brage Departy Mode Brage Poston Image Foston Image Sole Ractor.		5 0.01 10 Functionalitisck Snytheme:11 Squipmenthiame: Hode: Hode:Center R	() () () () () () () () () () () () () (

2.1.3 Creating a New Equipment Definition

Menu: Database>Equipment Library[Add Equipment to Library]	Applie	s To:
		All product levels
Default command line shortcut: Ie Create a new equipment definition from which to create functional blocks,	Relate	d Settings:
rack panels, etc.		None

How To: Add Equipment to the Library

Add Equipment	to Library
Click Database>Equipmen t Library Click [Add Equipment to Library]	Annual Annu
Select or add a Manufacturer. Enter model/pn/ name, description, etc. Click [Next >]	*** New Equipment Image: Constraint of the second s
There is the follo	s always some confusion about the SysName Prefix (Equipment Type) field. Consider wing:

Add Equipme	ent to Library
cor we to u	have two types of video server -model A and model B - that use similar wiring. We may asider using the SysName Prefix - SRVR. Anytime we create an instance of one of these they will be SRVR-01, SRVR-02, and SRVR-0n. Now consider that model A is not available use and that we have to install model b instead. No problem. Because they "harness" is ned SRVR-n we can interchange Make and Model as needed.
This page is optional	iii New Equipment
but we recommend	New Equipment
filling in the Front	Completing the wizard
Panel File field Click [Next >] to add	Front Panel File Image Internet Panel File Image Internet Panel File
the new definition	Categories Synonyms Finish Cancel
	ing in the Front Panel File field will make the Rack Builder tool work. Leave it opty and you may be frustrated later.
Next we will add some Inputs an Outputs	
Add the I/O by selecting the I/O tab	Find Detail I/O Display Preferences Find: enter search text here Local Community Server

Add Equipment	to Library								
Click [Add Ports]. The	€ Add Ports						×		
Add Ports dialog will	Tips								
appear.	For feed-through connections or bulk Consider naming patchbay ports A-# It doesn't matter which side you plac For bi-directional signals such as Ethe	and B-# for the top and bottom e a port on. You can always mov ernet or RS-422 consider your do	rows e it later. cument flow when	determining the lis					
Enter a port name,	When selecting the connector gende	r always consider that WireCAD r	needs the CABLE E	ND of the connecti	on, not the chassis si	de.			
connector, signal type	Add to Which List:	Example:			Add Multiples:				
Select Inputs,	 Inputs (Left Side) Outputs (Right Side) 	Port Name: Connector (Cable End):		×	Add Multiple P Count (Appends # Starting @:				
Outputs table or Both	O Both	Signal Type:	select signal type	*	Leading Zeros:	00	1		
Click [Add Ports and		Input Pin Style: Output Pin Style:	Normal Normal	•	Finally Append	d Characters	-		
Close] or [Apply] (if		Add Ports and Close	Close	Apply					
you want to leave the									
form open).									
Connect	ing multiple port otor and Signal T the Add Multiple . See below.	ype. Select	the BO	TH radi	o button	to add	to both lis	sts. Now	/
4 Display Order (Cable End) Convector Signal Type Name	IsSelected Order	Select All Clear All Inputs All Outputs	Name	Signal Type	(Cable End) Connector	Pin Type	IsSelected	Order	
	Normal 0	 Select By Signal Type 	• PORT-01	AES 3,4	?	Norn			0
	Normal 1 D	VID	 PORT-02 PORT-03 	AES 3,4 AES 3,4	?	Norn	_		1 2
	Normal 3	AUD	PORT-04	AES 3,4	?	Norn	nal 🗌		3
	Normal 4 D	AES	 PORT-05 PORT-06 	AES 3,4 AES 3,4	?	Norn	_		4
	Normal 6	SDI	PORT-06 PORT-07	AES 3,4 AES 3,4	?	Norm			6
	Normal 7	TC	DORT-08	AES 3,4	?	Norm			7
		SPDIF							

WireCAD v8 User Manual

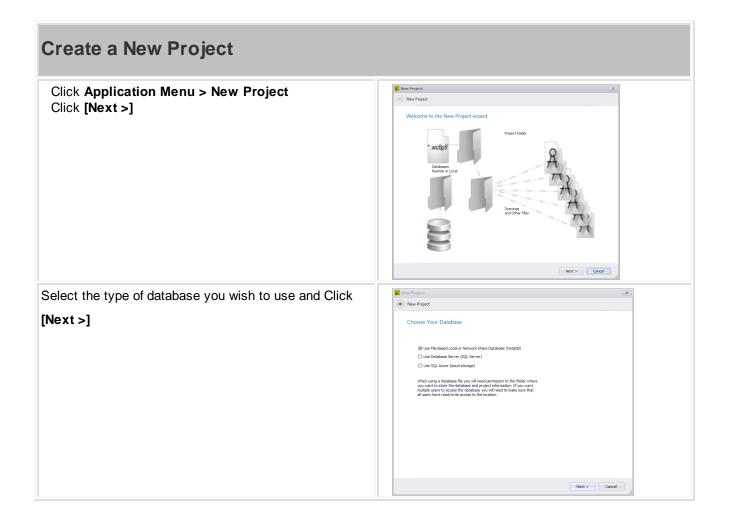
2.1.4 Creating a New Project

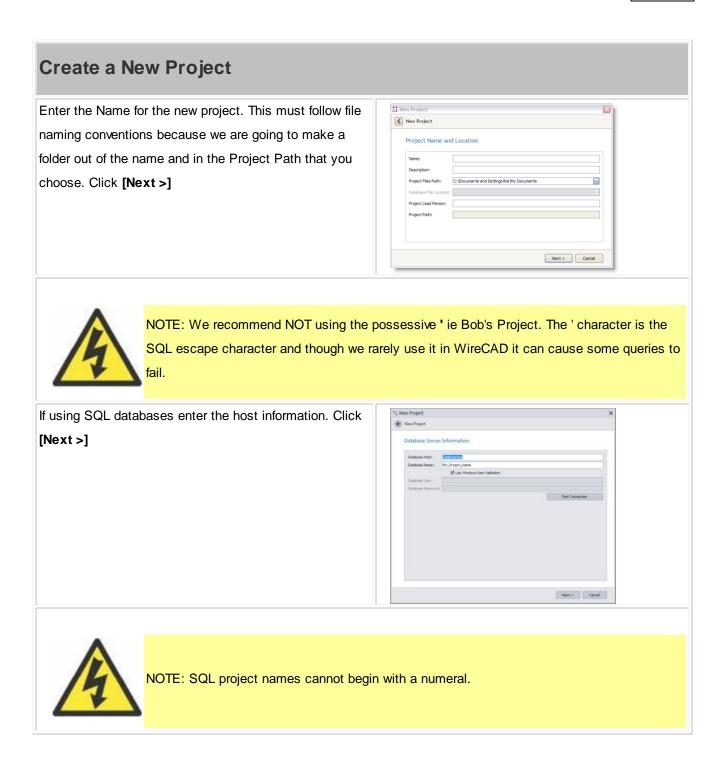
38

Menu: Application Menu > New Project	Applies	Applies To: All product levels Related Settings: None
		All product levels
Default command line shortcut: np Create a new WireCAD Project structure. This involves folder structures on	Relate	d Settings:
your operating system as well as databases and support files.		None

WireCAD can create projects with a number of different database formats. You may choose to create a new project using file based databases for their zero admin capabilities, or SQL Server for an enterprise installation.

How To: Create a New Project

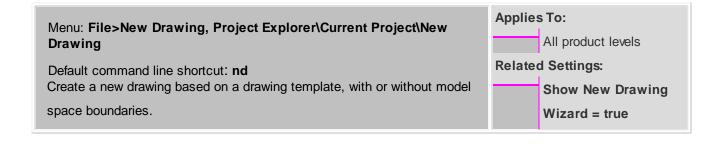




Create a New Project

Define some of your project preferences. Here you set	*1 New Project X
your base Starting Cable Number for all sequences.	Project Settings (also available under Project-Settings)
Click [Next>]	Project Settings Setup Gabe Number Setup Gabe Number Setup Gabe Number Under Setup Gabe Number Index Number Number Default Gabe Number Default Gabe Number Under Menn code Number Setup Under Menn code Number Setup Index Cable Number Number Setup Index Cable Number Setup Index Cable Number Setup Index Number Setup <
By default the Next Numbers table will suggest and test	*2 Inter Project X
the next number. If that number is in use, the Next	Project Settings (also available under Project-Settings)
Numbers table is incremented and tested until an	More Project Settings Advance/Inspectismup Number Generation
available number is found. This behaviour can be	Datable Prof terror Available Systems: Due Neeton Nuelborn IVID Catalog) Datable Prof terror Available Systems: Due Neeton Nuelborn IVID Catalog) the default between and for the terror base the terror base more than the default between and the terror base provided available gives executionally well as a file more than the systems and a system and the systems and the
overridden to force the usage of the number in the Next	Notice is the rest \sim is the second order of the second rest and an annual relative in the second γ is the declaration and the effect of the second rest is the second rest of the s
Numbers table without testing for existence. To do this	IP Address IP Haak Hode None Default Schwet Haak 205.205.205.0
Check the Disable Find Next AvailableClick	
[Next >]	Next > Canof
Enabling Locations Lookup causes a subtle change in	*1 lever Project X
the SysName Assignment process. You will no longer be	Project Settings (also available under Project-Settings)
able to just type a location but rather will select your	Location Sectings Locator / Environ Temp Parago Locator Indextor - Bet Defector - Devator - Set Defector -
predefined locations from a drop-down list. If you wish to	Location deferred in saved to assesse the service attended of the location fails. Example you registrate the whit's to seave the location fails that is combinent part life: Campaul.Building Prov. Alson.Raio.Stevation: The deferred must be consistent is not all the participation. Service attended on the participation of the service of the service of the participation of the service of the ser
work as you have in previous versions of WireCAD	v7 alleus the unit of a Location loake able. This alleus you to profind free you biocations and emforts use of entry these profiles for some the Annual A
disable Locations Locations Lookup.Click [Next >]	Montaile Campou Campou Red Caption Campou Red Caption Montain Rudorg Rudor Pred Caption moderg Montain Rudor Rudor Pred Caption Rudor Montaile Rudor Rudor Red Caption Rudor
	Next > Garof
Click [Next >]. Review and click [Finish]	

2.1.5 Creating a New Drawing



How To: Create a new drawing using the wizard

New Drawing W	izard
 Click File>New Drawing Select a template drawing from which to start Click [Next >] Select boundary settings Click [Next >] to finish 	Select a Template Drawing Select a Template Drawing Select a Template Drawing WCTBPART_AFCDWG WCTBPART_AFCDWG WCTBPART_AFCDWG WCTBPART_AFCDWG WCTBPART_AFCDWG WCTBPART_AFCDWG WCTBPART_BARCDWG WCTBPART_BARCDWG WCTBPART_BARCDWG WCTBPART_BARCDWG WCTBPART_DDWG
Template drawings are	A New Drawing
drawings that have been saved in the template drawings folder and already have entities such as page borders, layouts and viewports added to them.	Use Model Space Boundaries Use Model Space Boundaries Model Space Text Height 0.01 Out @Larger Image And Compared Counter From Compared Counter of the Compared Count of the Count of th

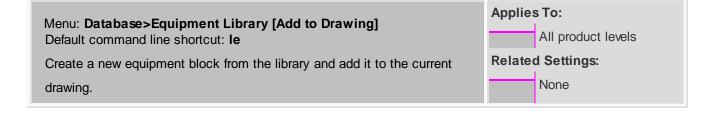
New Drawing Wizard

Create Model Space Boundaries. The Model Space **Boundaries** function takes two arguments, the Model Space Text Height and the desired Printed Output Text Height. Using these two variables in conjunction with the size of the Viewports in each Layout to create boundary rectangles in the Model space. Each boundary is accompanied by a text description that describes the Viewport and to which the boundary applies as well as the text heights and scale factor. Note: You can add Model Space Boundaries later using the Format>Boundar ies function

The final step is to name the

drawing.

2.1.6 Adding Equipment to Drawings



How To: Add Equipment to Drawings

dding Equipment to the Draw	/ing				
Find and select the equipment definition from	Prof. Boost Basic Course And	arcan.			Fed
he Equipment Library.	© Community Server		(plus)	To Community	Find Al
	Connections	Test Corrects	a contract	Converting Converting a state	ine with 20032 devices
	Restlictory a				
	Coloner/Frank	Albrevation	Accessory Of	Eastman Description	(appendige
	*				
	3 T Finnal a Tarres 100				
	@ test added freman @ Planafacturent 3391042	frenan		described	patied
	= source			Power Source	Power Source
	E Planafacturere 360 SYS7				
	@ famy			Ravian	478.
	U dMed				-
	= Carthaller			Traffic Cantralier	C1.4
	© Presky © guff		Cartholer	Rocker and	
	0 Jungs Server 20		Carrier	Mang 2 miles Server	20.4
	@ Photo: R			101-01	SERVER
	@ PASSIR_H			329-459.	SIR-ER.
	@ Instant Replay			Audio Sampler	8
	@ feet Jack			Jackfield	7
	© Test40 © Hemdecteren 340 SYSTER	45		Puel text	Rader
	8 MID			Automaticals added from drawing, Pl	740
	III PRED 5			Automatically added from drawing, PL	
	W Parenfacturer 300P91				
	ADVINE B			10.0	ED'IN
	monito Received to Pro unite			Marca.	Market State
Select the IO you want to display in the Irawing			Find	etail I/O Display Pr	eferences
Select the Display mode				Functional I/O	
			I	Conceptual I/O	
				Conceptual I/O	(High)
				Front Panel	
				Top View	

Adding Equipment to the Drawing						
Select the Display Preferences. Everything is parametric. There are settings for Body Width, Pin Spacing, Color, etc.	Standard Standard Standard Standard Standard Standard Standard Standard Standard					
If the Auto Preview function is not set, you may wish to click the Refresh button (either above the preview window or on the IO tab).	Refresh Block Preview Auto Preview Refresh					
Click [Add to Drawing] (requires an active drawing).	MSL [2] [2] [2] Statistical Sta					
Place the newly created block in the drawing.						

2.1.7 Drawing Cables

WireCAD provides a series of tools to draw cables. The only rule that this version of WireCAD imposes is that you must draw from one WireCAD device to another. You cannot draw a cable representing a spare that connects to nothing.

WireCAD provides a cable auto-routing tool that automatically routes the cable around other devices and, if selected, avoids other cables. The auto-router will always find a path for the cable, even if it means that the cable is drawn through another device or must overlay another cable. If you do not like the way a cable is routed, you have two choices; first: manually drawing the cable by selecting Manual Draw, second: select the cable and grab a grip on the cable and move it around.

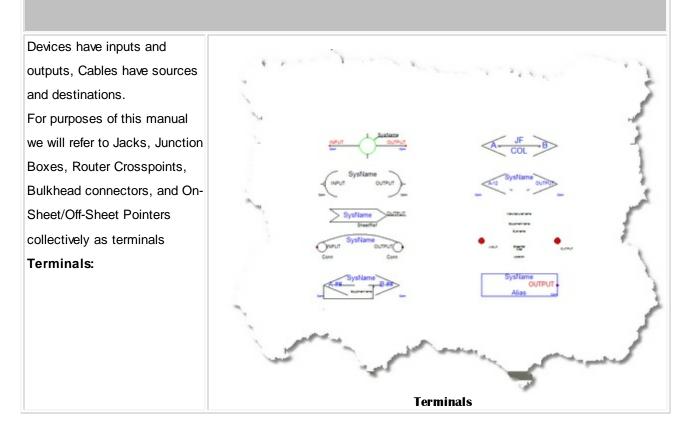


If you manually draw cables or otherwise put them where you want them and them move a device, the auto-router will be invoked and re-route all your changes.

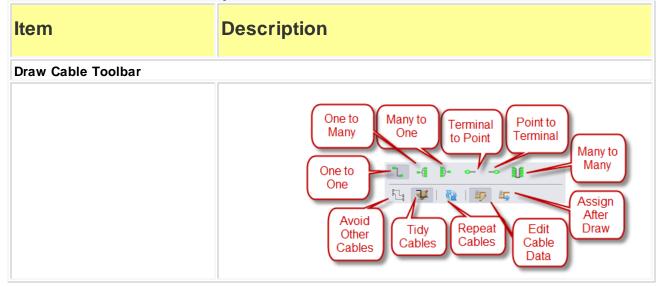
Topics

WireCAD Cable Terminology 46 Draw Cables Toolbar 46 One-to-One Cable 45 Aux Text 48 Manual Draw Cables 47 Cable Router X Offset 50 Cable Router Y Offset 50 Default Pointer 50 One-to-Many Cable 50 Many-to-One Cable 53 Many-to-Many Cable 53 Many-to-Many Cable 53 Terminal as Source 55

WireCAD Cable Terminology



Draw Cables Control Descriptions

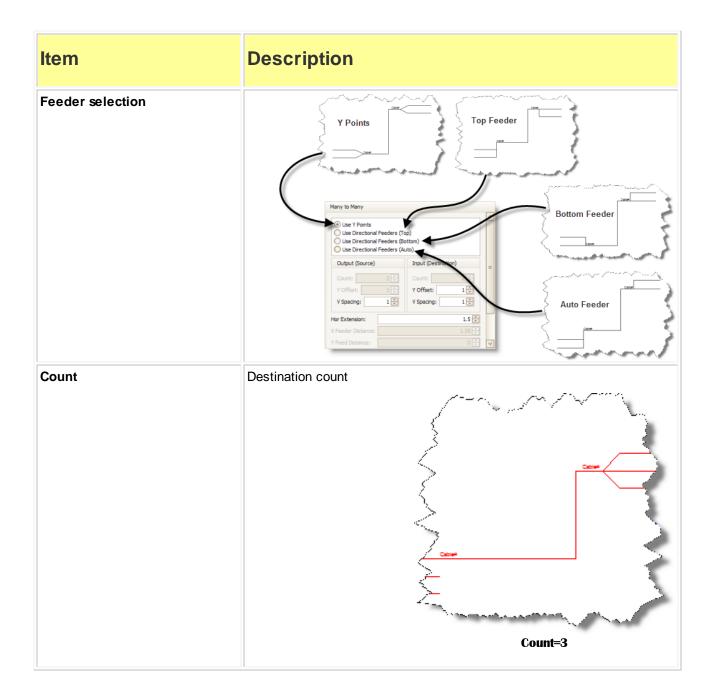


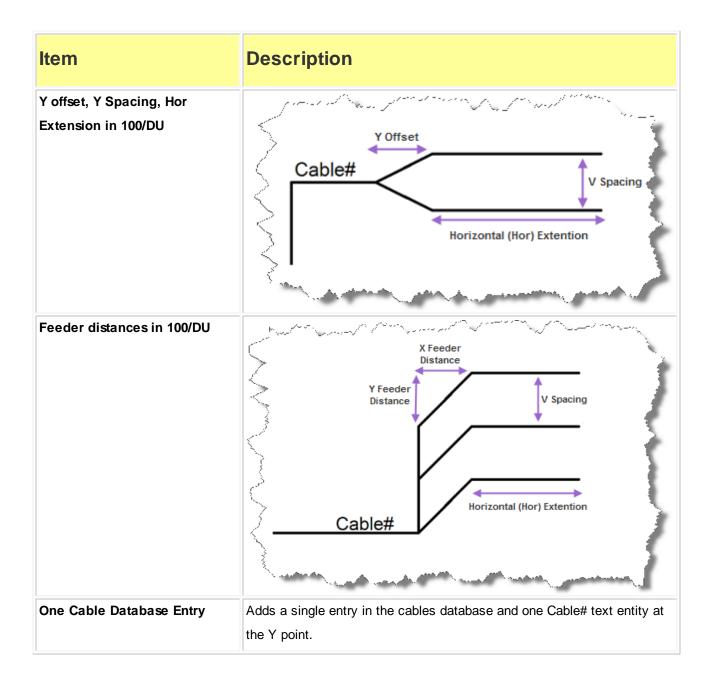
ltem	Description					
One-to-One Cable	Used to draw from one output to one input					
Cable Text Height	The Cable# text entity height in 100/DU.					
Replace Cable with Pointers checkbox	Automatically draw Pointers instead of cables.					
Manual Draw checkbox	Draw every point in the cable.					
Avoid Other Cables checkbox	Allows cables to overlay each other. True =					

Item	Description
	False =
Aux Text Enable	Enable the placement of Aux Text.
Aux Text Height	The height in 100/DU of the Aux Text.
Location	The position of the Aux Text relative to the cable polyline. Over - positioned over the cable polyline. Under - positioned under the cable polyline. Bubble - Not yet supported. FXLR Cable# Aux Text FXLR

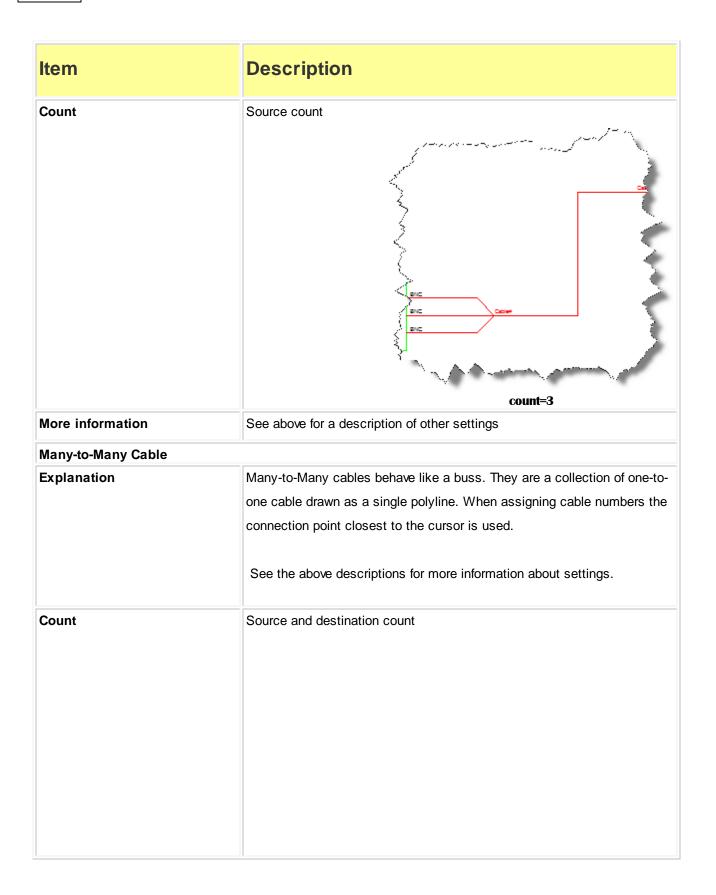
ltem	Description						
Variable	You may choose to populate the Aux Text with the following variables:						
Format	{0} represents the data from the selected variable. Example: the incoming data from the selected variable is 300 and you want to format it to represent meters to the reader. Your format field would be {0}m. The output would be formatted as 300m.						

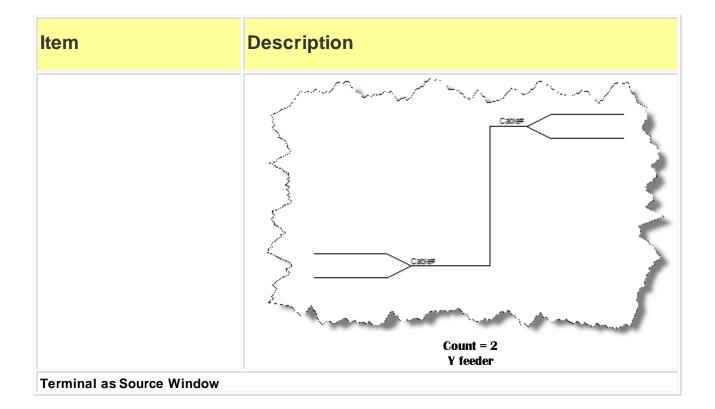
ltem	Description
X Offset	Horizontal auto-router offset. When drawing cables, WireCAD uses an auto-routine algorithm. The X Offset determines how far away horizontally from other equipment and cables a new cable will rout.
Y Offset	Vertical auto-router offset. When drawing cables, WireCAD uses an auto- routine algorithm. The Y Offset determines how far away Vertically from other equipment and cables a new cable will rout.
Default Pointer	Select the pointer to use when replacing cable with pointers
One-to-Many Cable	
Explanation	Used to indicate one output to many inputs

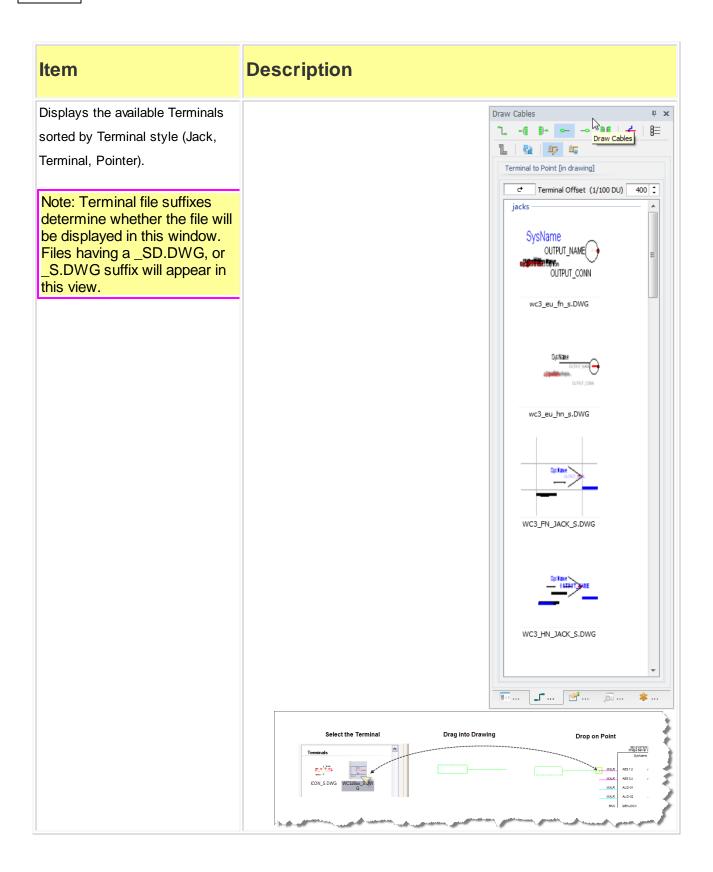


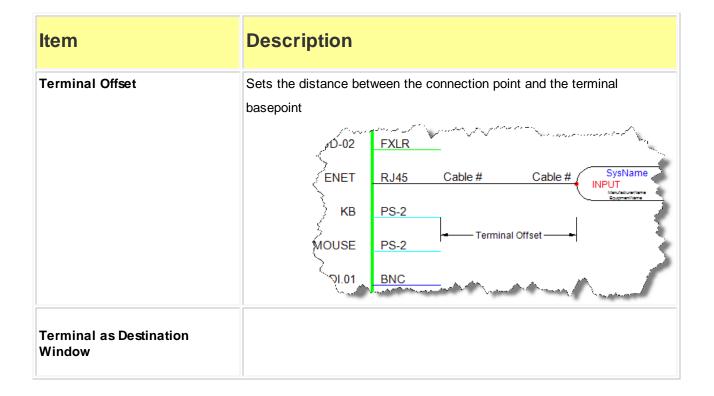


ltem	Description					
Many Cable Database Entries	Adds a many entries in the cables database and many Cable# text entity at the connection points. Note: One-to-Many and Many-to-One cables set to Many Cable Database Entries will assign the connection point closest to the cursor when the cable is double-clicked. The first assignment on the cable will enter the database as expected, subsequent assignments will display the Existing Ports dialog prompting you to decide how to number the cables.					
Many-to-One Cable Explanation	New Number Concel Alow Duplicate (Including Number) Show Databases Concel					







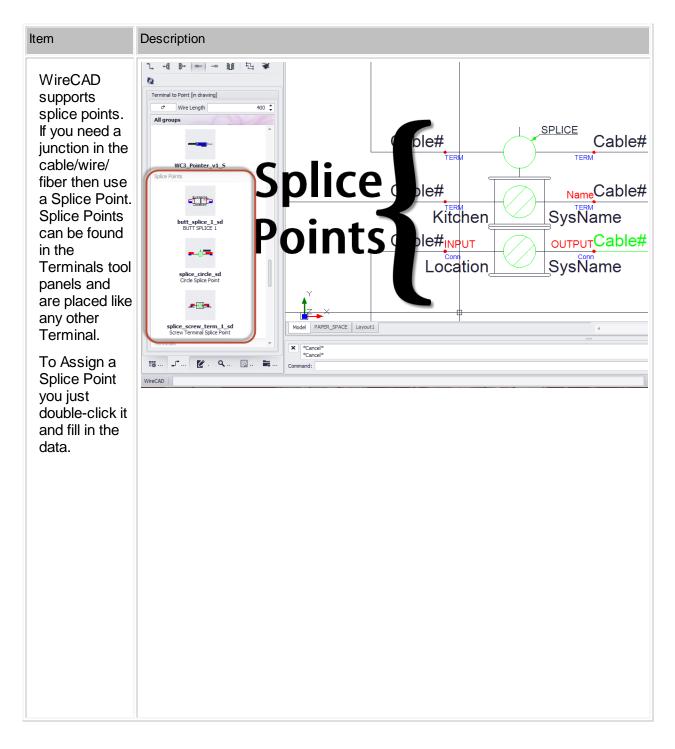


ltem	Description
Displays the available Terminals sorted by Terminal style (Jack, Terminal, Pointer).	Draw Cables The set of the se
Note: Terminal file suffixes determine whether the file will be displayed in this window. Files having a _SD.DWG, or _D.DWG suffix will appear in this view.	Systame wc3_eu_hn_d.DWG
	WC3_HN_JACK_D.DWG
	WC3_NN_JACK_D.DWG pointers
Terminal Offset	see above
Avoid Other Calbles	instructs the cable auto-router to avoid other cables.

Item	Description							
Tidy Cables	After moving a grip on a cable the cable is forced ortho.							
	R PHX AUD-01 PHX AUD-03 PHX AUD-06 PHX AUD-06 PHX AUD-06 PHX AUD-06 PHX AUD-06 PHX AUD-06 PHX AUD-06 PHX AUD-08 PHX AUD-09 PHX AUD-08 PHX							
	Before Tidy							
	SDI BNC AUD FXLR PHX AUD-01							
	KIVET KUR PHX AUD ² AES FXLR PHX AUD ² 0 AUD-01 FXLR E Cable# PHX AUD ² 0							
	MOUSE PS-2 PHX AUD-05 01 BNC PHX AU =0.03 BNC PHX AUU-1							
	AES 3.4 FXLR PHX AUD-08 VIDEO.02 BNC Cable# MIA							
	KB C							
	Tidy After							

Splice Points

Explanation

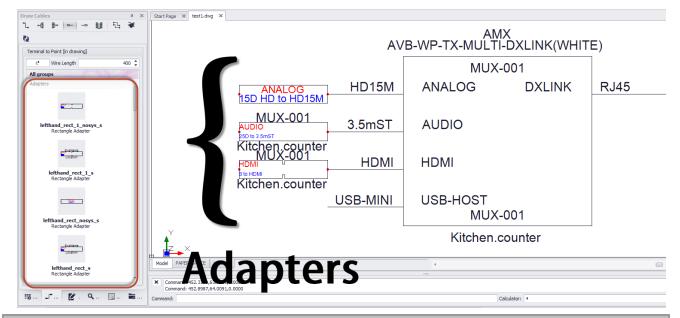


NOTE: if the
SysName
contains the text
SPLICE then the
duplicate checks
and other
validations
against the
Cables and
Equipment Lists
are ignored. This
allows you to
have any number
of Splice Points
all with the same
name.

Adapters

Explanation

WireCAD supports the use of Adapters. Adapters are typically used to convert from one connector to another and may also involve the conversion of signal type. Adapters are found in the Terminals tool panels and are placed similar to other terminals. The difference is that instead of a wire being placed between the port and the terminal the Adapter is placed directly on the port. Once placed, the adapter reads the block to which it is being attached and gets the SysName and Port information. It then asks you for the connector new connector type. Finally it populates the Adapter with the extracted information.



NOTE: if the functional block to which you are attaching the adapter is not yet assigned a **SysName** you will be prompted that the operation cannot complete until you have assigned a **SysName** to the device. You will then need to double-click each attached adapter to get the information into the adapter.

2.1.8 Defining Locations



Explanation

You can enable the **Locations Lookup** table. Here you can predefine your locations; thus maintaining referential integrity across all of your locations. In order to use this function you must set Application Menu > **Settings** > **Project [Locations] Enable Locations Lookup** = true. If this setting is false, WireCAD behaves as it did in previous versions allowing you to type any value in the **Location** field of the **SysName Assignment** dialog.

When using the **Locations Lookup** setting you will need to add locations before you can make use of them in the **SysName Assignment** dialog.

There is one other ramification of using the **Locations Lookup**: in the **Cables** table are two new fields **SRCEL** and **DESTEL** (Source Elevation, Destination Elevation). These are now populated as you assign cables. This provides an additional level of control as you create reports.

Step	Description					
Click Project Explorer>Project Databases>Locations	This opens the Locations table					
Click File>New	*** Add Location(s) Campus Building Floor Room Rack Description Qualified Location Qualified Location Status	Count 1 ¢ Count 1 ¢ Count 1 ¢ Count 1 ¢ Count 1 ¢ Count 1 ¢ Add Cancel				
Enter your data and click [Add]						

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2.1.9 Assigning Unique IDs (SysNames)

Menu: Advanced Tools>Equipment Functions>Assign SysName Default command line shortcut: as Alternately: double-click the equipment block in the drawing. Assign a unique ID to blocks in a drawing.		Applies To:		
		All Product Levels		
		d Settings:		
		SysName Format		
		Leading Zeros		
		Next Numbers Database		

This function performs the following steps:

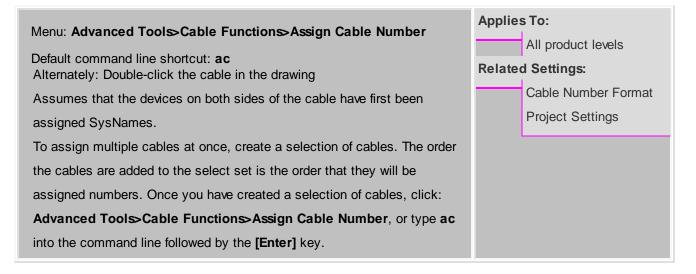
- 1. Gets the next number in the sequence (based on the SysName Format) from the Next Numbers table.
- 2. Prompts the user for input.
- 3. Updates the drawing
- 4. Updates the project systems database.

Note: if the project contains related projects, you will be notified of duplicate SysNames in related projects

Edit SysNames Dialog						
SysName	New Sysname for ACCOM-Axial 3000				×	
	Manufacturer		Ŧ	Equipment Name	Axial 3000	*
If you manually enter a	Sysname Alias	EDITOR-007				▼ New
SysName it must follow the	Location User 1	Location	* +	Elevation User2	Elevation	•
format defined in the	User3 IP Address			User4		
SysName Format tool. The	IP Address Power Consumption	0		Subnet Mask Power Consumption Unit		
SysName textbox will be	Weight Flags	0	•	Weight Unit		
masked to help you follow						
the format	Status				OK	Cancel
Alias						
Alias is functional name for	Example: If th fed by SVR-01			-		A-120 and it is
the device. Think of it like the	5	, ,				
friendly name. The SysName						
is the unique ID the Alias						
can be duplicated if desired.						

Edit SysNames Dialog					
Location / Elevation	We recommend that you enter a Location and Elevation . Take your best guess. The Rack Builder tool will use your guesses to create a preliminary rack layout that can easily be modified to suit your final design				
User 1 - 4	For you				
IP Address / Subnet Mask	For the IP stuff if any				
Power Consumption / Weight	Pre populated from the Global Equipment database if exists				
Flags	Various flags to help you sort the equipment in your Systems table.				

2.1.10 Assigning Cable Numbers



This function performs the following steps:

- 1. Gets the next number in the sequence (based on the Cable Number Format)
- 2. Prompts the user for input
- 3. Updates the drawing
- 4. Updates the project systems database

Note: if the project contains related projects, you will be notified of duplicate Cable numbers in related projects

Edit Cable Number	s Dialog			
CableNo	*7‡ Assign	Cable Number - [WireCAD Defa		FRED-002
If you manually enter a Cable Number it must follow the format defined in the Cable Number Format tool. The CableNo textbox will be masked to help you follow the format	CableTypeM SignalType NamedPath Integrator CableUser1 CableUser3 Sheet Pinout	Select a Named Path	Bequence Fill Nume CableType V Muticore Da V Length CableUser2 CableUser4 ReplacedBY	A-32 DAJ-002 Location * NEW * eric Gaps in Available Cable Numbers 1505A 003 ORG
CableNo, New +	When double- The [New +] b some caution.	direct entry field as well as within the current All Available I Show Available Fo clicking an assigned ca putton will allow the cal	r sequence, filli r sequence Fill Nur able, the form v ole number to b	In that displays all available, ng gaps if so desired. meric Gaps in Available Cable Numbers vill be shown in edit mode. the fully edited. This requires sure that the edits and
CableTypeManu, CableType		Manu BELDEN ble Type Manufacture	CableType er and Cable 7	
SignalType,Multicore Data, Add All Cores	SignalType V	ЛD	Muticore Da	Add All Cores

Edit Cable Numbe	rs Dialog
	Select the Signal Type. If you have selected a multicore cable from the CableType dropdown, the core data will be shown. If you are assigning a single core in the core structure, select that core. If you wish to assign all cores and have selected enough cables to apply all core number to, select the Add All Cores checkbox.
Source and Destination info	aa-01 FRED-002 B B B-32 DA-1032- Location Location

2.1.11 Assigning Terminals

Menu: Advanced Tools>Equipment Functions>Assign Terminals	Applie	s To:
Default command line shortcut: ats		All product levels
Alternately: Double-click the terminal in the drawing	Relate	d Settings:
Assumes that at least one SysName 64 has been assigned.		None
To assign multiple terminals at once, create a selection of like terminals. The order the terminals are added to the selection set is the order that they will be assigned numbers. Once you have created a selection of terminals, click: Advanced Tools>Equipment Functions>Assign Terminal(s) , or type ats into the command line followed by the [Enter] key.		

This function performs the following steps:

- 1. Opens a port selection dialog based on SysName.
- 2. Prompts the user to select the SysName and the port or ports to display(or range of ports of multiple terminals are selected).
- 3. Updates the terminal(s) in the drawing.



SysName

a new SysName

Inputs grid

SysName	Care Burger	
Select the SysName or press the [+] button to add	Outline Outline	C. Number
	Cable# Cable#	
a new SysName	Cable# Cable#	SysName
	Cable# Cable#D	SysName Con
	Cable# Cable#	SysName
	Cable# Cable#	SysName Cont
	Cable# Cable#	SysName
	Cable#Cable#	SysName
	Cable#4. Cable#4	SusName
		<u> </u>
	Assign Systiame and Ports to Terminal(s)	
	Select a SysName: SRVR-100	
	I am just changing a SysName (all existing ports stay the same) Persist this equipment on next assignment Outputs Track Ir	nputs (if matching)
	Inputs	Outputs
	Name Type Conn Sour	Type Conn Destin
	AES AES MOUR AES	AES FXLR
	AES 3,4 AES MOLR AES 3,4 AUD MOLR AUD	AES FXLR AUD FXLR
	AUD-01 AUD MXLR AUD-01	AUD FXLR
	CNTL CNTL 90Male DATA	DATA PS-2
	HD SDI HD SDI RJ45 ETHERNET	ETHERNET RJ45
	SDI SDI BNC KB	DATA PS-2
	SDI-001 SDI BNC SDI	SDI BNC
	SDI-002 SDI BNC SDI.01 SDI-003 SDI BNC SDI.03a	SDI BNC
	SDL004 SDL BNC SDL001	SDI BNC
	ож.	Cancel
	WireCAD	
am Just Changing a SysName	Leaves all port data as currently displ	
	just changes the SysName. This is u	seful for modifying
	existing terminal assignments.	
Remember this equipment	Remembers the selected SysName a the next terminal assignment	and returns to it on
Dutputs track inputs	When you select an input that has a output of the exact same name, that selected.	

Active only if the selected terminal(s) have input

connection points

Assign Terminal(s) Dialog

Outputs grid	Active only if the selected terminal(s) have output
	connection points

2.1.12 Rack Builder Tool

Menu: Advanced Tools>Rack Functions>Rack Builder		Applies To:					
		XLT PRO					
Default command line shortcut: rb	Related Settings:						
The Rack Builder tool is not available in XL Free mode		Default Rack Height					
		Top Down Racks					
The Rack Builder tool utilizes information in the Project Systems table and							
the global equipment library to place and populate rack elevation views. This							
process may be run repeatedly as the project progresses.							

Topics How it Works Controls

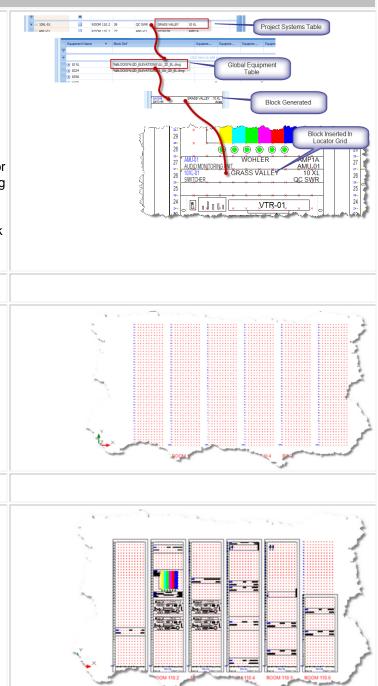
How it Works

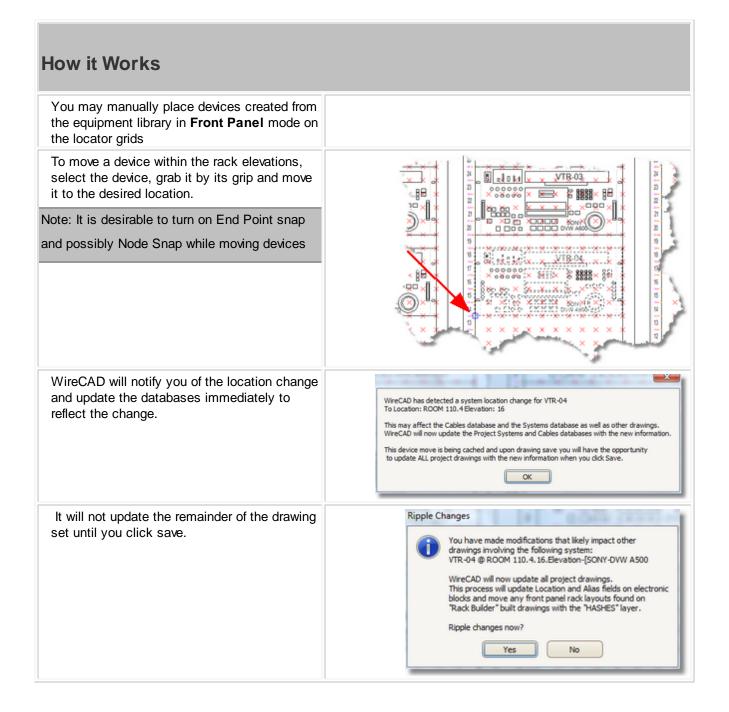
The Rack Builder tool relies on three key pieces of information. First we need the SysName of the device to add to the rack. From the SysName we retrieve the equipment manufacturer and model. Second, using the equipment manufacturer and model, we get the global equipment definition from the global equipment database. If the global equipment definition is complete it will contain either a reference to a front panel dwg file (BlockRef) or dimensional data. If either of these are missing the Rack Builder tool will flag that equipment definition as requiring more information. The Rack Builder tool will perform a preflight check of all data and let you know what you are missing.

Assuming all of the data fiddly-bits are in the right place, the Rack Builder tool will populate the drawing with one locator grid per location selected. A locator grid is an array of point entities that are spaced horizontally and vertically based upon your selection in the preferences.

Next the Rack Builder tool, based on the Mechanical View Rule, will place either the front panel file or a block created from the dimensional data at the location point defined in the Project System entry.

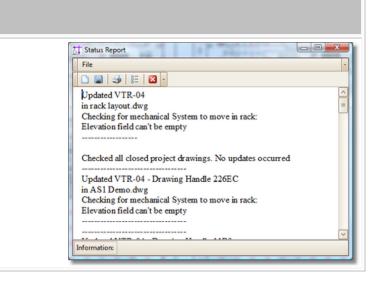
The locator grids facilitate location aware movement of the devices placed on the grid





How it Works

Once changes are made across the drawing set you will be notified of the changed drawings



Controls	
The [Basic] tab allows you to select the locations to include in the Rack Building function. As you select each location, the Systems Involved list will populate.	** Rack Builder Basic Advanced Select Locations For Which to Build Rack Elevations Add Location • 00 01 109 109,1 110 110 110 112 112,1 Deleted EDIT 1 EDIT 2 Location RK-01 RK-10 ROOM 110,2 ROOM 110,3 Clear All Check Selected Uncheck Selected OK Cancel
Systems Involved list	Displays a list of all the systems that will be placed in the created drawing.

Controls									
The [Advanced] tab exposes	*∱ Rack Builder 💌								
properties that control the	Basic Advanced								
behavior of the utility.	Chassis Width 19 🗘 Height in RU 45 🗘 Slot Count 11 🗘								
	Slot Delimiter - Insertion Point 0,0,0 ····								
	Attribute Height 25 🗘 View Rule ShowDwginPath 🔻								
	Place Text if Item Cannot Be Created Spacing (DU) 24								
	✓ Include Grid Hash Marks								
	OK Cancel								
Chassis Width	Sets the width of the chassis in DU								
Height in RU	Sets the height of the locator grid in Rack Units (RU = 1.75 inches or 4.445cm)								
Slot Count	Sets the number of slots per locator grid. This is used to position items that may not be located at the insertion point of the rack unit.								
Slot Delimiter	WireCAD searches the Elevation field for numeric values first then for the slot delimiter if found it parses the the data into two values the elevation and the slot, or in other words how far up in the rack and how far over.								
Insertion Point	Where to start the whole process								
Attribute Height	If view rule is not ShowDWGInPath, sets the attribute height of the displayed text.								
View Rule	ShowDWGInPath = use the dwg file found in the equipment definition BlockRef (Front Panel File). CreateFromDimensions = use the dimension data from the equipment definition to create a 3D rack block. CreateFromDimensionslfNotFound = Use dimension data if the BlockRef is not found.								
Place Text If Item Cannot Be Created	If the item cannot be created due to lacking data, place a text marker in the drawing at the location.								
Include hashes	This will normally be checked unless you are rebuilding a drawing that								
	already has the locator grids.								

Controls	
Spacing DU	Sets the location grid spacing in Drawing Units

2.1.13 Equipment List Visualizer

Menu: Database>Project Systems>Equipment List (SysNames)	nent List Visualization tool utilizes information in the Project able and the Global Equipment Library and the Project Cables o create a view of all cables attached to the selected item.	
		PRO, ENT
The Equipment List Visualization tool utilizes information in the Project Systems table and the Global Equipment Library and the Project Cables database to create a view of all cables attached to the selected item.	d Settings:	
The Equipment List Visualization tool utilizes information in the Project		See the Settings Tab
Systems table and the Global Equipment Library and the Project Cables		
database to create a view of all cables attached to the selected item.		
These details are useful for error checking and in the field as an installation		
aid.		

Controls												
The Equipment List with RTR-01	Data Visualization	Settings Visua	Ization									
	Updates to this grid rip	se to project draw	ings and databases	after you save the	drawing							
	Search:										Search	Find A
selected	Drag a column header	here to group by	that column									
		 Avaiable 	Location	Elevation	Ales	Manufacturer	EquipmentName	Flags	SystiameUser 1			
	*		1000000	Developin		1000000	chick of the state					
	© MON-001	0	RK-003	44	MON-001	SONY	4K4 MONITOR					
	© MONT-001	0	Location	Elevation	MONT-001	SONY	PVM20M4U					
	© MLX-001	0	RK-003	34	MLX-001	ENSEMBLE	BrightEves 71					
	@ POT-001	0	Location	Elevation	POT-001	ManufacturerName						
	@ RK-001	0	RK-001	01	RK-001	APVI	PIONEER - 45 RU					
	⊟ Rx-003	0	RK-003	01	RK-003	APVI	PSONEER - 45 RU					
	© RK-004		RK-004	01	RK-004	APVI	PIONEER - 45 RU					
	▶ © RTR-001		RK-004	1	RTR-001	PESA	COUGAR SOL					
	© SPA-001		EDCT01	WALLA	EDET 1	CUSTOM PANEL	85P					
	⊕ SPA-002		Location	Elevation	SPA-002	CUSTOM PANEL	85P					
	@ SPA-003		Location	Elevation	SPA-003	OUSTOM PANEL	85P					
	© SPA-004		Location	Elevation	SPA-004	CUSTOM PANEL	85P			8		
	© SPA-005		Location	Elevation	SPA-005	CUSTOM PANEL	85P					
	© SPA-006	0	Location	Elevation	SPA-006	OUSTOM PANEL	859					
	© SPA-007		Location	Elevation	\$PA-007	OUSTOM PANEL	85P					
	© SPA-008		Location	Elevation	SPA-008	CUSTOM PANEL	85P					
	© SPA-009		Location	Elevation	SPA-009	CUSTOM PANEL	852					
	© SRNR-001		Location	Elevation	SRVR-001	360 SYSTEMS	Image Server 2K			*		
	Ins +s + Record 38	(53 + H H -	• V X 4									

Controls

Use Last Display Order if Set	Sorts the ports of the block based on the saved display order if any.					
Terminal	The terminal to display					
Use Last Saved Appearance	If there are device level setting saved, use them.					
Body Width and Pin Spacing	Appearance settings in 100/DU					
Port Data Source	 Pull the port data from the Equipment Library. This will show ALL ports associated with this device definition. Pull the port data from the Cables table. This will show only those ports to which cables have been attached and assigned. 					
Title Block	Describes the visualization. Salt to taste.					
Visualization tab	Does it.					

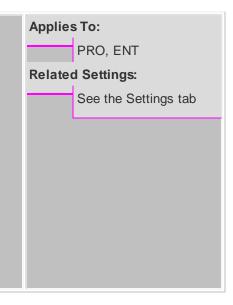
2.1.14 Cables Visualizer

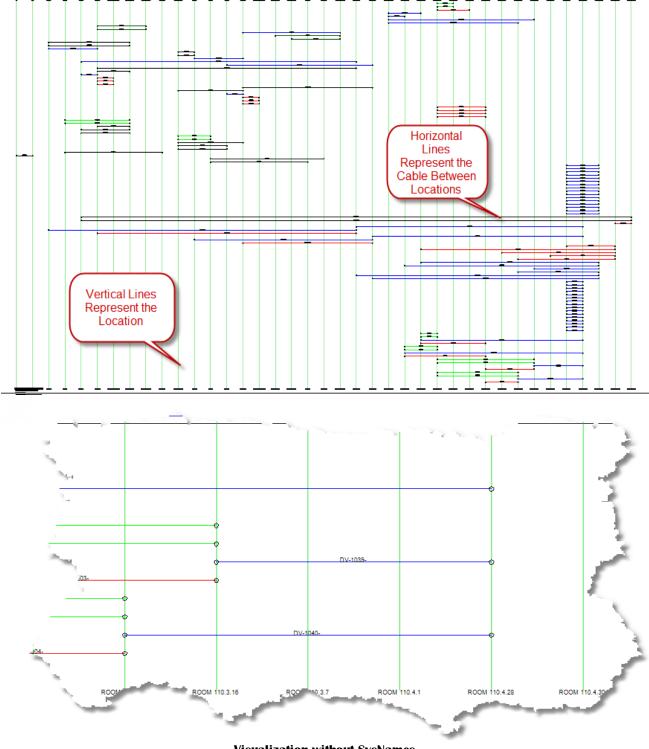
Menu: Database>Project Cables>Project Cables Grid

Default command line shortcut: cg

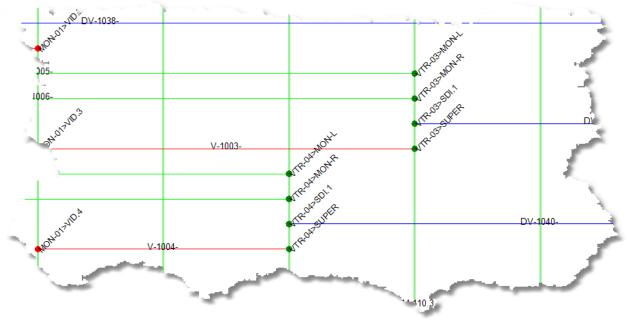
The Cables Visualization tool creates a layered digraph showing the Locations (vertically) and the cables between them (horizontally). Use this output for:

- Pre-wires
- Spare inventory
- General overview
- Enlighten and amaze your friends





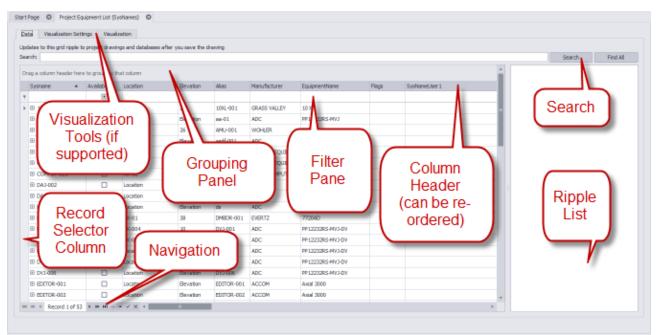
Visualization without SysNames



Visualization with SysNames

2.1.15 Grid Basics

Menu: various	Applie	T. Contraction of the second se
Default command line shortcut: various	Relate	ALL d Settings:
WireCAD displays data from the various databases in grid form. WireCAD		Various
grids support the following:		
Searching		
Sorting		
Column re-ordering		
Column hiding/showing		
Column grouping		
Column resizing		
Column filtering		
Copy Selection Down		
Increment Selection Down		
Hierarchical display		
 Export to PDF, EXCEL, TXT, HTML, XML and more 		
In addition, several grids support WireCAD Visualization Tools mentioned		
earlier in this text.		



Grid Parts

Search	Enter your search text in the Search box and click [Search] . WireCAD will search all fields in the table for the search term. These are wildcard searches.
Sort	Clicking on a column header will cause a sort. Clicking it again will reverse the sort order.
Column re-ordering/ resizing	Drag a column from its center to initiate a move. Drop it where you want it to display. To resize a column, drag its edge left or right.

How To										
Column hiding/	To ł	nide	a column:	righ	t-click the c	olumn he	ader and	choose [R	emove this	s Column]
showing	from	from the context menu.								
	To s	show	a column	:						
	1. F	Right	-click any	colu	ımn header					
	2. C	2. Click the [Column Chooser] context menu item								
		Cus	tomizatio	n		\times				
		Ag								
		Арр	DID							
		Cre	atedOn							
		Dat	eAdded			_				
			eModified							
		DBR				- 1				
	EntityType									
		The Customization form displays hidden column headers								
	3. C	3. Drag the column header you wish to display and drop it on the header bar with the								
	0	ther	column he	eade	ers.					
Column grouping	lf th	o ari	d supports		uning the g	rid will dis	nlav a Gr	oupBy par	nel at the to	p indicating
grouping		-		-						pinaloating
	that column headers may be dropped there to group.									
	Sea	arch:								
		Manu	facturer 🔺		EquipmentName	A				
		Svsr	name		Available	Location		Elevation	Alias	Flags
	9									
		•	Manufactur	er: 3(50 SYSTEMS					
	Þ		▼ Equipme	ntNa	me: Image Se	erver 2K				
			⊕ SRVR-0	001		Location		Elevation	SRVR-001	
			⊕ SRVR-0			RK-003		10	SRVR-002	
			Manufactur Manufactur							
		•			uped by Ma	nufacture	r and Fou	inmentNar	ne fielde	
	To	in-ar		-	ag the colur		_	-		
		un-gi	oup simpl	y uia		ini neauel	DAUK LU I	ne neauel	vai.	

1. Click the column header	with a list of uni	nn header. You will be p que values found in that
		que values found in that
	Appears on	
	Hover	
	Manufacturer	
		(Custom) (Blanks)
	GRASS VALLEY	(Non blanks)
	ADC	360 SYSTEMS ACCOM
	WOHLER	ADC
	ADC	AJA APPLE COMPUTERS
	GENERIC EQUIPM	
	GENERIC EQUIPM	CUSTOM PANEL ENSEMBLE
	APPLE COMPUTER	EVERTZ
	ADC	GENERIC EQUIPMENT GRASS VALLEY
	ADC	ManufacturerName
	ADC	PESA SONY
	EVERTZ	WOHLER
	ADC	11
	ADC	PP12232RS-MV1-DV

2. Click the (Custom) menu item presented in the column filter list. Custom AutoFilter Show rows where: Manufacturer	How To	
Image: second system Image: second system <td< th=""><th></th><th>Custom AutoFilter Show rows where: Manufacturer Equals Image: And Image: Image:</th></td<>		Custom AutoFilter Show rows where: Manufacturer Equals Image: And Image:

Clearing Filter Criteria	If a filter has been applied to a grid, a filter panel will display on the grid in the lower left hand corner.							
	Data Visualization S			~				
	Lipodatean to this grid ripple Search:	to project drawin	ngs and databases a	after you				
	Drag a column header h	ere to group by th	hat column					
	5ysname •	Available	Location	E				
	• EE SFOR-001		Location					
	(E) 58/98-662		RK-003					
	K 🗹 [Manufacture] - H. H Record Lef T	* 260 SYSTEMS - 16 M =						
	You may clear the filter by closing [X] the filter panel.							
	× ☑ [Manufacturer] = '360 SYSTEMS' ▼							
Copy Selection Down	If the grid supports it you will be able to copy the top item in a sele	ction do	own into	all				
	of the selected cells below it. Follow these steps:							
	1. Create your selection							
	2. Click Edit>Copy Selection Down or press [Ctrl]+[D] on your keyboard.							
	3. Be sure to click File>Save to commit your changes to the data	base.						
Increment Selection	If the grid supports it you will be able to increment the top item in a	selecti	on down	n				
Down	into all of the selected cells below it. Follow these steps:							
	1. Create your selection							
	2. Click Edit>Increment Selection Down or press [Ctrl]+[I] on your keyboard.							
	3. Be sure to click File>Save to commit your changes to the data	base.						
Deleting Cell Data	To delete the contents of the selected cells simply click the [Del] I	(ey on y	your					
		-						

How To	
Deleting Selected	To remove the rows from the grid:
Rows	1. Select the rows to delete by click on the Record Selector (left-most column without data).
	2. Click Edit>Delete Selected Rows or click [Ctrl]+[Del] on your keyboard.
	3. Be sure to click File>Save to commit your changes to the database.

Display Hierarchical	If the grid supports it and there is detail data to display you can click the [+] but	tton in
Detail Data	the left-most row.	
	Drag a column header here to group by that column	
	ManufacturerID	Acce
	P No Detail Data to Display	
	► BAA	
	CUSTOM BTN PNL	
	□ AA 510	
	Inputs Collection Outputs Collection	
	۹ Name	Conn
		R
	↔ R ↔ Vid	R R
	ACCOM DV	
	ADC PP Detail Data	
	ADC PP ADC RGA	
	AD PPI1224N	
	Has Detail	
	D4-E	
	 ➡ AJA KBOX ➡ AJA Digital I/O 	
	⊕ AJA HD10AMA	
	H4 44 4 Record 1 of 3 ► → → → ✓ × 4	
Export	Click File>Export>[File Type]. WireCAD will then export the data with your ca	urrent
	grouping, sorting, and filtering applied to the selected format.	

2.2 **Personalizing WireCAD**

The Settings Dialog 261 Reference Template Drawings 87

2.2.1 **Template Drawings**

Menu: File>Save As Template Drawing Menu: File>Open Drawing Default command line shortcut: fo (File Open)

Applies To:			
	All		
Related Settings:			
	Show New Drawing		
	Wizard		
	Template Drawings		
	Support Path		

F

Template drawings are drawings that are preset with items that you don't want to add every time, such as page borders (titleblocks) and viewports. It is not uncommon to create a template for each project by starting with an existing drawing and adding your titleblock data etc. Some WireCAD users go so far as to create templates for their frequently used designs.

Template drawings are saved in the Template Drawings Support Path. You can pick template drawings from the New Drawing Wizard.

Creating Template Drawings	
Create the base template drawing	Customize your drawing to include the desired title blocks, layouts, text, logos, etc.You may go so far as to fill in title blocks with specific project data such as client name and draftsmen.

Save it to the Template Drawings support path	This is normally c: \users\public\documents\WireCAD\WireCAD[#] \TemplateDrawings\. Note: this will be different if you are installed and working on a network with others. To check your % TemplateDrawings% support path, click Application Menu > Settings~Application[Support Paths] and check the path entered in the Template Drawings field.
Usage	
Create a new drawing	Click File>New Drawing. If your default settings have not changed you will be presented with the New Drawing Wizard. The first window should now display your shiny new template drawing. Select it and continue through the wizard.

2.3 Reporting

Contents

Printing Reports 89 Filtering Reports 90 Creating Reports 93

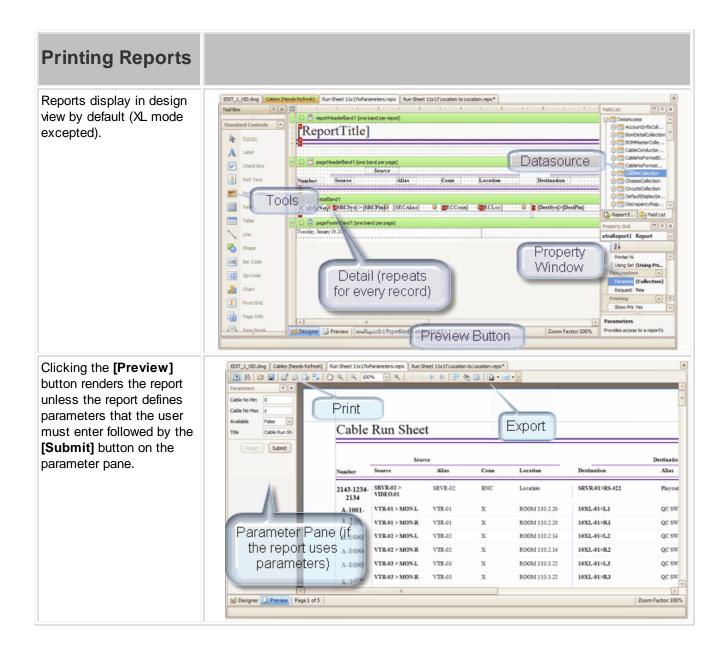
2.3.1 Printing Reports

 Menu: double-click the report in the Project Explorer
 Applies To:

 Default command line shortcut: none
 XLT PRO ENT

 Opens a report for preview, printing or export
 Related Settings:

 None



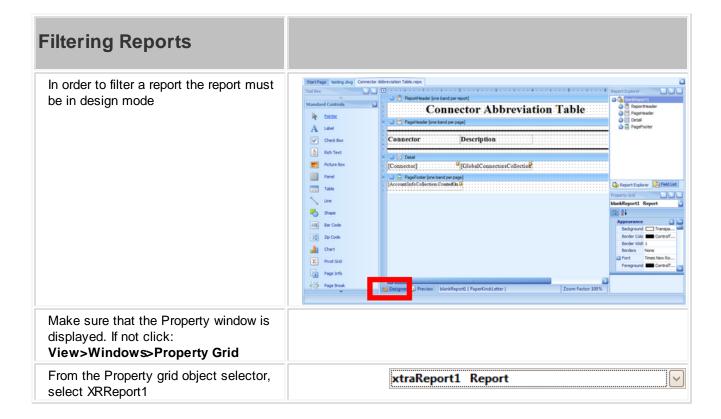
2.3.2 Filtering Reports

 Menu: double-click the report in the Project Explorer
 Applies To:

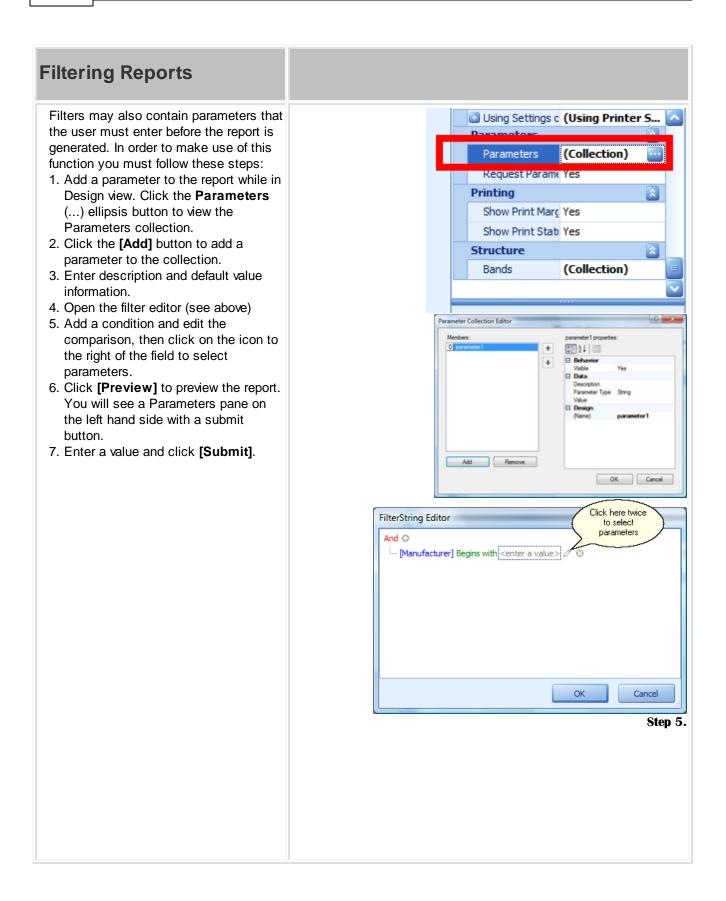
 Default command line shortcut: none
 XLT PRO

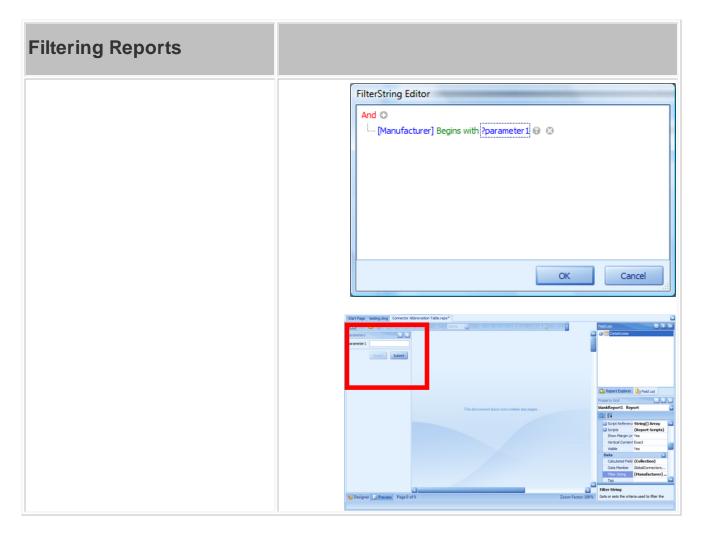
 Report filtering is not available in XL free mode.
 Related Settings:

 None



Filtering Reports	
From the Property grid select the Filter String ellipsis button	Padding 0, 0, 0, 0 Page Color White Style Sheet (Collection) Style Sheet's Path Text Alignment Top Left Watermark # Watermark (Picture) Behavior (Picture) # Export Options (Export Options) Measure Units Hundredths of an Inch Script Language C# * Script References String[] Array * Scripts (Report Scripts) Show Margin Lines in F Yes Vertical Content Splitti Exact Visible Yes Data (Collection) Data Member CablesCollection Filter String [CableNo] >= ?Ca agy XML Data Path V
This opens the filter dialog from which you may select a number of different filters	FilterString Editor And ○ □ [Manufacturer]] □ Begins with <enter a="" value=""> ⊘ ② □ = Equals ≠ Does not equal > Is greater than > Is greater than or equal to <</enter>





2.3.3 Creating Reports

Contents

<u>Standard</u>9िभी <u>Labels</u>9िश्वी <u>Report Design Basics</u>103ो

2.3.3.1 Standard

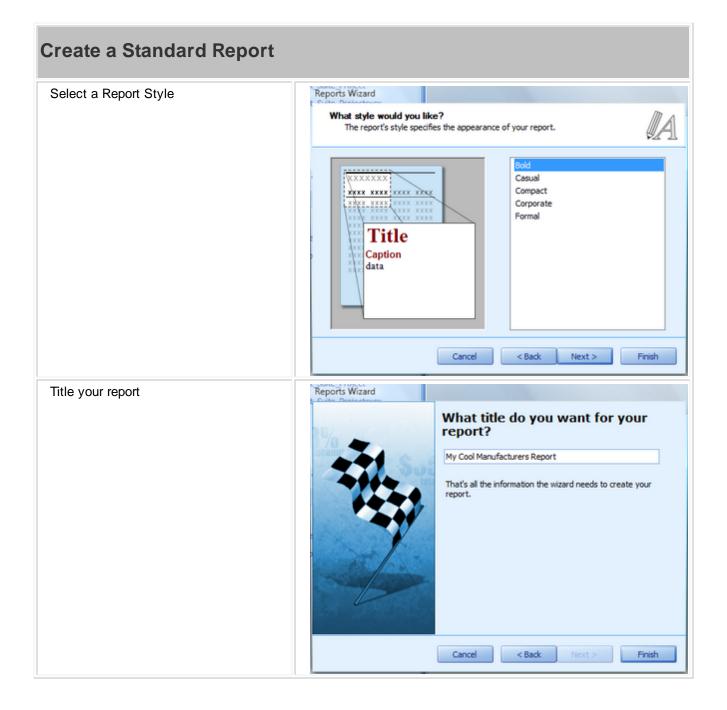


How To: Create a New Report

Create a Standard Report	
Click Reports>New Report with Wizard. Alternately: from the Project Explorer - click New Report with Wizard	Reports Wizard Welcome to the Reports Wizard This wizard will create a new report with data-bound controls display information from the dataset you specify. Citike Next to continue. Report Type Standard Report Label Report Cancel
Select the Standard Report option. Click [Next >]	

Create a Standard Report	
Select a data collection. Data collections access both the global and project databases. For example: say you wanted to show a list of all manufacturers. You would select the GlobalManufacturersCollection . Note: collections are hierarchical to aid in the creation of subreports. All collections are populated with data when the report is previewed.	Reports Wizard Select Data Collection For Report WreCAD organizes data into either global or project data collections. Collections are heirarchical GlobalManufacturersCollection GlobalPinOutProfilesCollection GlobalPinScollection GlobalPinScollection GlobalSignalTypesCollection GroupsCollection GlobalSignalTypesCollection GroupsCollection PermissionsFunctions PermissionsFunctions PermsCollection ProjectInfoCollection ProjectInfoCollection ProjectInfoCollection ProjectInfoCollection ProjectInfoCollection
Select the fields (columns) you wish to display in the report.	Cancel < Back Next > Finish Reports Wizard Choose columns to display in your report Your report can display any of the columns available in the dataset.
Note: use the > >> < << buttons in the center of the two lists to move items between the lists	Which columns do you want to display in your report? Available fields: ManuGUID ManufacturerID DisplayInEquipment DisplayInCableTypes UserAdded ModifiedOn CreatedOn Cancel

Create a Standard Report Apply any grouping **Reports Wizard** Do you want to add any grouping levels? Grouping splits data into groups based on identical fields values. You can specify several grouping fields at the same level to perform multiple grouping. ManufacturerNa > ManfacturerWebSite ManufacturerName, ManufacturerImage ManfacturerWebSite, +> ManufacturerImage < Λ Priority V Cancel < Back Next > Finish Select a Layout and Orientation for **Reports Wizard** your report. How would you like to lay out your report? The report's layout specifies the way in which the selected data fields are arranged on report's pages. Note: the Adjust field width to fit function will force all selected fields on to Layout Orientation a single page possibly rendering some of XXXXXXX OPortrait Columnar the data unreadable. If you have lots of **** **** **** Landscape XXXX fields to display, consider using a Tabular Justified report Justified "A Adjust the field width so all fields fit on page Cancel < Back Next > Finish



Create a Standard Report

Click [Finish] to create your shiny new report.	
	Table Import Export Ure Share Bar Code Share Import Export Import Export Import Export Import Export
Click File>Save and save your work to your reports support path	

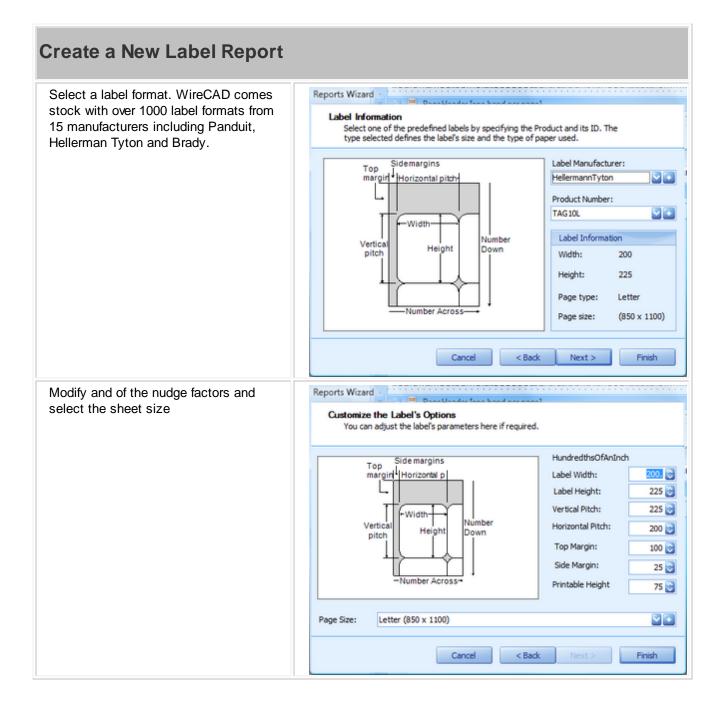
2.3.3.2 Labels

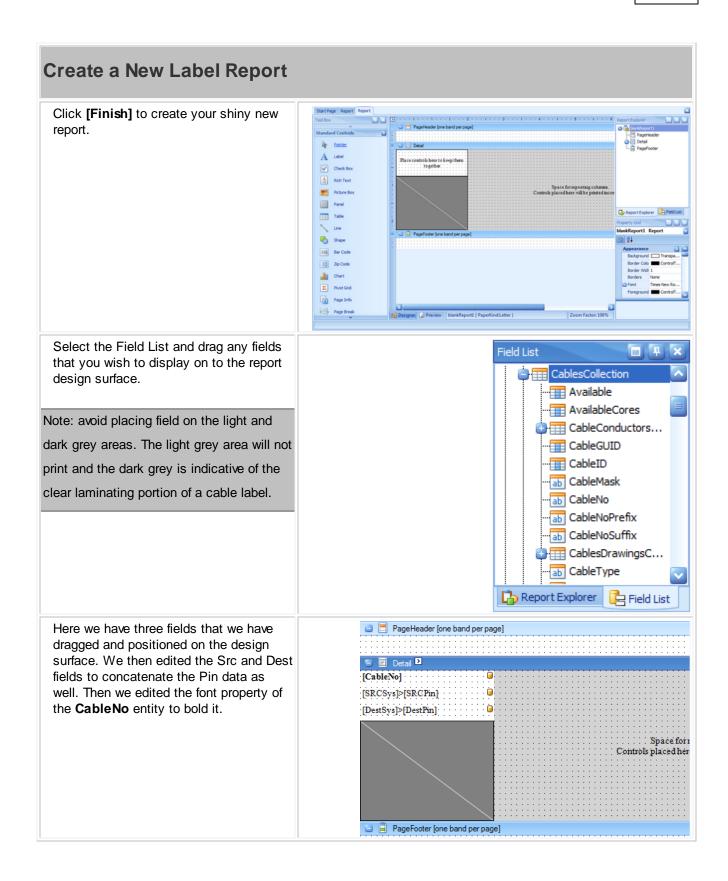
Menu: Report>New Report with Wizard	Applies To:	
		XLT PRO
Default command line shortcut: rw Create a new label report	Related Settings:	
		None

How To: Create a New Label Report

Create a New Label Report	
Click Reports>New Report with Wizard. Alternately: from the Project Explorer - click New Report with Wizard	Reports Wizard Welcome to the Reports Wizard This wizard will create a new report with data-bound controls to display information from the dataset you specify. Click Next to continue. Report Type Standard Report Label Report Label Report Cancel <a> Next > Finsh
Select the Label Report option. Click [Next >]	
Select a data collection. Data collections access both the global and project databases.	Reports Wizard Select Data Collection For Report WireCAD organizes data into either global or project data collections. Collections are heirarchical
Note: In the case of labels we probably want to use the CablesCollection	CablesCollection ChasesCollection CircuitsCollection DefaultDisplaySettingsCollection DiscrepancyReportCollection DrawingRevisionsCollection DrawingsCollection GlobalColorCodesCollection GlobalColorCodesCollection GlobalEquipmentCollection GlobalEquipmentCollection GlobalManufacturersCollection GlobalManufacturersCollection Cancel < Back

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Create a New Label Report Final output looks like this				
	DV-1030-	DAT-10030-	DA.1001.	V-1005-
	DV3-01>B-05	5RVR-185>KB	SRVR-01>AES 1,2	DV3-01>
	DV3-02>A-05	5ERVER-01>CH2-422	SRVR-01>VIDEO	DV3-02>
	D-1002-	V-10066-	V-10065-	DV-100
	SRVR-181>ENET	SERVER-01>COMP1	DV3-01>B-12	SRVR-0
	SRVR-10>GENLOCK	DV3-01>A-11	DV3-02>A-12	SRVR-0
Click File>Save and save your work to your reports support path				

2.3.3.3 Report Design Basics

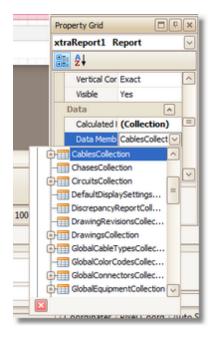
The following topic assumes that you have either opened a new blank report or that you have run the New Report Wizard.

Navigating the Designer



		DataAccess
		BomDetailCollection CableConductorsColl
▼ ■ pageFooterBand1 [one band per page] Wednesday, March 31, 2010		Property Grid □ ₽ × xtraReport1 Report ✓ 2↓
Click Here to load General Document Properties into the property grid		Visible Yes Calculated I (Collection) Data Memb CablesCollection Filter String [SRCLoc] Like
<)[]	>	Tag XML Data P

If you open a new report without running the wizard you will need to set the report Data Member variable. Click in the dark grey area to load the general properties. Select the Data Member from the drop down.



You can drag fields from the Field List directly to the report designer.

If you want to concatenate multiple fields in a single label you can drag multiple fields onto the same label or edit it directly.

To edit a label double-click it to enter edit mode.

1. A.	2
- [SRCSys] >	-
	-

Type directly into the label. Field names must be enclosed in [] brackets.

2.4 Frequently Asked Questions

Contents

<u>Placing Custom Titleblocks (Page Borders)</u> <u>Creating Custom Titleblocks</u> <u>Moving Projects</u> <u>Synchronizing with Another Equipment Library</u> <u>Setting Up on a Network</u> <u>Upgrading From v6</u>

2.4.1 Placing Custom Titleblocks (Page Borders)



How to Place Custom Titleblocks into Your Drawing

Step	Description
Switch to the Layout in which you intend to place your custom page border	To Model an Layout And A
Open the Insert block into Drawing dialog. Basic CAD Tools>Blocks>Insert Block into Drawing	Insert Block Block Name S60 SYST-BAMBANv0 From File Select all parameters on screen Select
	Y: 0 Y: 1 Z: 0 Z: 1 OK Cancel

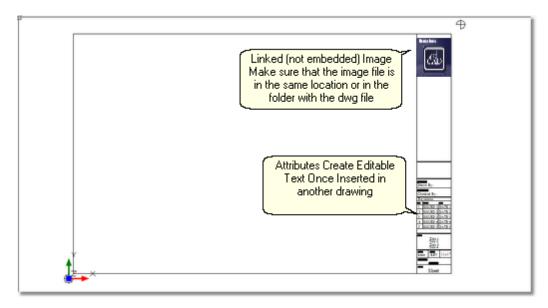
Description
model space

2.4.2 Creating Custom Titleblocks



How To: Create Your Own Custom Titleblocks

- 1. Create a new drawing with no template.
- 2. Draw your titleblock in Model space scaling it 1:1 with your printed page size, ie an 11x17 page border would be 11x17 minus your margins.
- 3. Place any images and attribute definitions.
- 4. Save the drawing.
- 5. Follow the steps <u>here</u> for placing your title block drawing in any other drawing.



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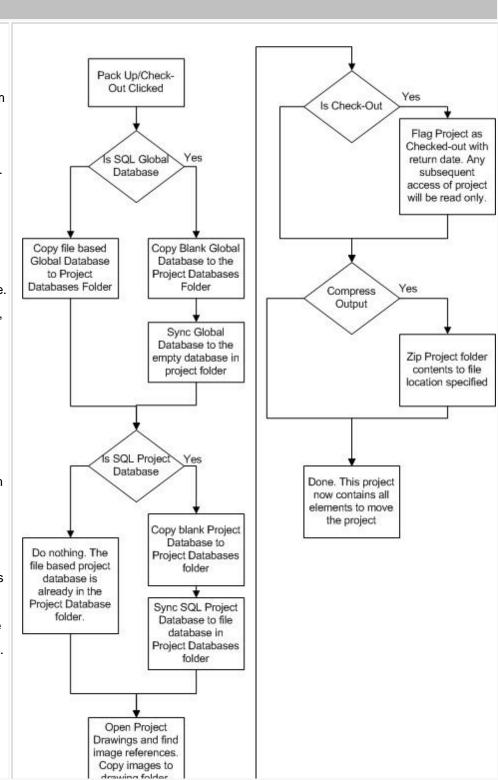
2.4.3 Moving Projects (Pack Up/Check-Out)

Menu: Application Menu > Project Utilities>Packup / Check-out	Applies To: XLT PRO	
Menu: Application Menu > Project Utilities>Unpack Menu: Application Menu > Project Utilities>Check In Default command line shortcut:	Related Settings:	
XL FREE does not support this function		

Moving Proejcts

The Basics

When moving projects from machine to machine there are external items upon which the project depends. These are referred to as project and drawing dependencies. The main project dependency is the global equipment database. Drawings may have image, XRef, and font dependencies. When we Pack Up a project we are grabbing all of those dependencies (fonts are and exception and are not included) and placing them in the Project folder. We may choose to Check Out the project at the same time (PRO only). This flags the project rendering read only until such time as the project is checked back in.



Moving Proejcts
Once packed up and/or
zipped up you are ready to
move the project to another
machine. Simply copy the
Project folder or the zipped
file and move it to the new
machine.
Please note that it is
beyond the scope of this
manual to tell you how to
copy and move files in your
operating system.

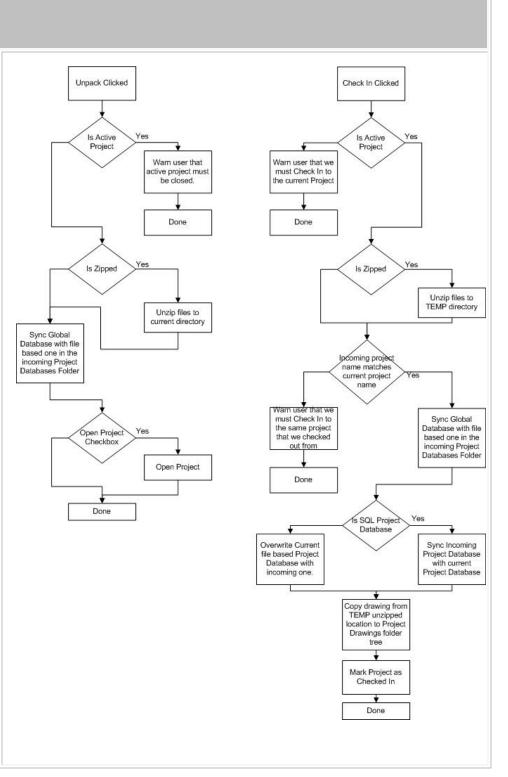
Moving Proejcts

To Unpack or Check In - That is the Question

The two functions are practically identical with the exception that the Check In function won't launch without an active project and once unpacked will mark the active project as Checked In. Whether you Unpack or Check In a project depends on whether you are moving a project to a machine on which that project already resides and whether you have Checked Out the Project.

If you have not Checked Out the project then there is no need to Check In the project. If you are moving a project to another machine, use

the Unpack function.



2.4.4 Synchronizing with Another Equipment Database

Menu: **Database>Sync Equipment Libraries...** Default command line shortcut:

XL FREE does not support synchronizing another Equipment Database.

Occasionally you may experience the need to sync with another user's global database. This will copy all of their equipment to your Global Equipment Database. The sync includes manufacturers, equipment, inputs, outputs, signal types, connectors, cable types, cable core data, relational tables, etc.

You may choose within the tool to perform an **import**, **export** or **bidirectional** sync.

Applies To: XLT PRO Related Settings: Syncs the incoming global equipment database to the connected Global Equipment Database

Demystifying Synchronization

Synchronizing data in two tables of the same structure is really very simple. In its most basic form, records that do not exist in one table are added. Records that exist in both tables receive the most current data based on a timestamp. In order that records deleted from one table do not get added back in, a special table is employed to track deleted keys. If the delete is the most current action then the record will likewise be deleted from the other table. In the unlikely event that the records have the exact same timestamp, yet the data is different, those records are flagged as conflict records from which you must pick the most correct.

Controls

Database Location	Sync Equipment Databases		
Select either a VistaDB file based	Synchronize with an external equipment database External Database Location		
database or a SQL Server host. If server			
based you will need to provide host and credentials. If you do not know them	Database is server based Host:		
contact your SQL Server database	Host: Authentication File Name C:\Users\cbh\Documents\zxc @ Use Windows Authentication		
administrator.	Test Connection User Name:		
	Password:		
	Export		
	Bidirectional		
	Remember Settings Sync Cancel		
	Status		
Import, Export, Bidirectional	Self explanatory		
Remember Settings	Remember database location information		
Sync	Initiates the synchronization with the top progress bar showing the overall progress and the bottom showing detail progress.		
Status Bar	Displays status of the sync.		
At the conclusion of the sync you will be	5 Status Report		
presented with a report that details the records updated here and there.	File		
	CollectionName = Manufacturers Sync Direction = Bidirectional		
	Records Added Here = 0		
	Records Added There = 1 Records Deleted Here = 0		
	Records Delete There = 0		
	Records Updated Here = 0		
	Records Updated There = 0 Records Conflicting Here = 0		
	Records Conflicting There = 0		
	Final Record Count = 394 ElapsedTime = 00:00:01.5087023		
	CollectionName = CableTypes		
	Information:		

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2.4.5 Setting Up On a Network

What follows is a discussion of several different network topologies and work flows that WireCAD can employ. Regardless of topology or work flow the following steps should be taken for each WireCAD machine. For purposes of this discussion we will distinguish between and Windows user operating under group policy and WireCAD user. The Windows user will be referred to as a OS user. WireCAD users will be referred to as WC users.

- 1. Install WireCAD
- 2. Create a network share that is visible to all WireCAD users. Group policy for the OS user of WireCAD should allow the user to read and write the registry (restriction of the registry editor is acceptable), as well as, read and write files on the selected shares, the WireCAD7 folder on the client machine, the OS user's temp directory, the OS user's All Users documents and settings folder trees.
- 3. Pick one WireCAD client machine from which to copy the global databases and copy from ...\WireCAD7 \WireCADGlobalEquipment.vdb3 to \

 $\label{eq:construction} VourNetworkShare\FolderForWireCADGlobalDatabases\WireCADGlobalEquipment.vdb3$

- 4. Launch WireCAD on the client machine.
- 5. Click Application Menu > Settings{Support Paths}
- 6. Modify the support paths for the Global Equipment database, and any blocks or reports that you wish to share among all users.
- 7. Click [Done] and relaunch WireCAD.

Note: The use of mapped network drives is not recommended. Rather use UNC (\ \ShareName\Path\) drive paths to specify network shares. This will avoid problems with the same share mapped to different drives.

8. Click **Application Menu > Security>View Permissions.** If you are an administrator or rather if your WireCAD identity is that of Administrator, you will have edit ability on this grid.

9. WireCAD uses your Windows groups. You assign permissions to the group. The current user Identity is set to the group thus determining their access level.

2.4.6 Upgrading from v7

Menu: Various	Applies To:	
Default command line shortcut: none	All product levels	
	Related Settings:	
		None

If you are upgrading from v7 you will need to take the following steps:

Upgrading from v7					
1. Install WireCAD v8					
2. Setup your global databases (file based or SQL Server)					
3. Click Database > Sync Equipment Libraries					
4. Click the ellipsis () and enter the path to the v6 WireCADGlobalEquipment.vdb3 file					
or set the SQL Server Host info.					
5. Click the Import radio button.					
6. Click [Sync] to sync the two databases.					
Note: this may take some time	Note: this may take some time				
6. Next convert any projects that you want to work with in v8					
7. Click Application Menu > Open Project and browse to your v7					
<yourprojectname>.wc6plf file. WireCAD will open and convert the project.</yourprojectname>					
*When WireCAD converts projects no drawings are touched. The database schema is mod	fied.				



WireCAD can no longer upgrade a v5 or earlier project. Key data access components needed to open and import data from the Microsoft Access databases are no longer available for modern 64bit operating systems.

If you need to bring a v5 or earlier project forward we recommend using a 32bit XP virtual machine with WireCAD v6 installed. Convert the project to v6. Then open it in v8 once converted.

We offer this service if you get in trouble. Call us.

2.5 Choosing a Database Format

Menu: None

Default command line shortcut: none

Applies To:			
	PRO		
Related Settings:			
	None		

WireCAD v8 PRO and ENT allows the use of file based and server based databases for the project and global databases. The choice of which to use requires some forethought. Listed here are some basic considerations:

	SQL Azure	SQL Server	VistaDB (File Based)
Zero Administration			X
Portable			X
ACID Compliant	Х	X	X
(atomicity, consistency,			
isolation, durability)			
Database Size	2 Gig	Theoretically unlimited	Theoretical limit is 16
			Exabytes (uint64).
			Practical limit is based
			upon machine resources.
			Files are not limited by the
			database engine, but
			loading very large
			databases will require large
			system resources.
In Process Processing			X
Cloud Based	Х		

At first glance that the table above it would seem that the proper choice would be the file based solution. However, take note of the item - In Process Processing means that the WireCAD processes must read and write all data to and from the file based database. Using SQL Server allows us to hand those processes off to the database server creating, in many instances, a significant (read 10X) increase in speed.

Before selecting a database format consider the following questions:

- Will I be moving the project from machine to machine? If yes, consider staying file based on the project.
- Do I have the chops to manage a SQL Server? If no, stay file based. SQL Server requires care and feeding.
- Am I away from my network when I work on WireCAD projects? If you lose connection, WireCAD will become hampered.

• Do I really need the speed enhancements? If you are working on projects with hundreds of thousands of cables, SQL Server is a must.

When you move a project using the **Application Menu > Utilities>Pack Up/Check Out** function and you are using SQL Server databases the database in converted to a file based version and will remain file based from that point forward.

To set up SQL Server see here

Need help with SQL Azure? Contact us we can help.

2.5.1 SQL Server Setup

It is not within the scope of this manual to provide an in depth discussion of SQL Server. We will touch on the basics required for use with WireCAD.

Basics

The WireCAD distribution includes SQL Server database files for the Global Equipment database. You will need to attach these to the the running server. You will then configure WireCAD to look at the SQL Server for the Global Equipment database. WireCAD projects will create a new database (catalog) for every new project.

You will need to set up permissions for each user to allow them dbcreator privileges. This is the default for localhosts but not remote servers.

There is no further requirement to attach databases once the Global Equipment database.

SQL Server can be set up on a server or on a local machine. WireCAD requires the 2005 version or newer and can use the Express versions.

Be sure to download SQL Server Management Studio Express as well. Both are free.

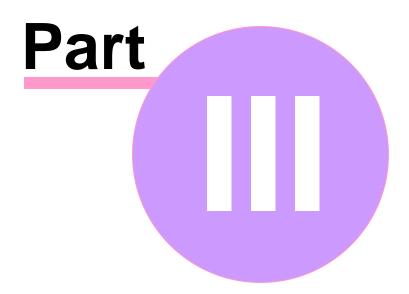
SQL Server does not provide a graphical user interface so you will want to download the management studio listed above.

Setting Up the WireCAD Global Databases on SQL Server

The following assumes that you are installing WireCAD on a local machine. If you are installing on a server you will want to copy the global database files in Step 6 below to the server before you attach them to the server.

- Install SQL Server. You will be prompted for an instance name. Instance names allow you to have multiple SQL Servers running on the same machine. In addition you will be prompted for a security mode (Windows or SQL), Windows uses your Windows users and groups, SQL ignores these and allows you to manages different users and groups from within SQL Server.
- 2. Install SQL Server Management Studio(SQLSMS).

- 3. Launch SQLSMS and log in to the server. If the server is on your local machine you can use the shorthand . \INSTANCENAME for the host.
- 4. Setup a proper login for WireCAD.
- 5. You will now need to configure each WireCAD client to look at the SQL Serverl
- 6. Launch WireCAD
- 7. Click Applcation Men > Application Setup and follow the steps for SQL Server.



3 WireCAD ENTerprise CMS Tools

3.1 WireCAD CMS Introduction & Concept

This section of the manual covers topics that will help you better understand the work flow, background and idea behind <%APPNAME%> with CMS Tools.

Topic Sub Sections

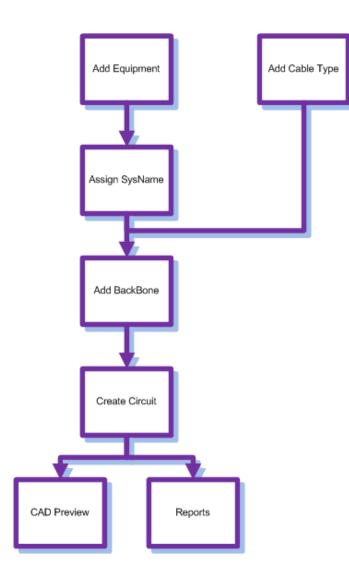
WireCAD Concept Before CMS Tools <u>CMS Tools Concept</u> [123]

3.1.1 CMS Tools Concept

<%APPVER%> with CMS tools has introduced the ability to work in a different manner from previous versions of WireCAD.

The standard work flow for WireCAD users has been to create your Functional Block Diagrams first, then assign SysNames and Cable Numbers and lastly, generate reports based on this information.

<%APPVER%> CMS allows you to start by entering your SysNames and Cable Numbers into the Database first, create Backbones and Circuits and then generate a Functional Block Diagram based on the information set in the Database.



3.2 CMS Basics

The following is a list of How To's for multiple functions in <%APPVER%> including creating Cable Types 419, New Equipment Definitions, Creating Projects and more.

Creating a New SQL Project 183 Creating a New Cable Type 170 How To Create a Backbones 130 Using The New Circuit Tool 147 How to Output a Circuit to CAD 162 How to Output Many Circuits to CAD 164 Using The Backbone Grid 126

3.2.1 Backbones

This is a step by step guide on how to create Backbones. Backbones are represented in the cables database by a collection of cables.

Each cable in the backbone has the same Cable Number Prefix. When you create a new Backbone you are creating a collection of cables based on the selected Cable Type. If you are documenting fibers think one fiber equals one core/conductor/cable. backbone cables are flagged with the boolean value isBackbone = true. Doing so distinguishes a cable as being part of a backbone structure.

Open the Backbones grid by double-clicking the icon in the Project Explorer [Project Databases][Backbones] Command Line Shortcut: bbg

Before You Start

Before creating a Backbone, you will need to make sure you have created your Equipment 176 and Cable Types

-		_									
 New Backbone 		Backbone ID = B 1035 +			Use Existing Available Select	Existing Backbone	Startin	g Number Se	ect an available cable		
rom					Cable Type MyTest12CoreCable	- +	То				
					Cable Type Manufacturer = COMSCOPE						
Location Filter				*	Part Number = MyTest12CoreCable Testing		Loca	tion Filter			
atch	Panel ID PP-03	P-03 * +			Number of Cores = 12		Pato	h Panel ID PP	P-04		•
vaila	able Ports				Cores to be used: 12 Cores Marked Available: 0		Avai	lable Ports			
1	lame	Туре	Conn	From/To 🔺	Cores Marked Availables o			Name	Туре	Conn	From/To
	05	FIB	SC	B1034.005 - PP-04				± 05	FIB	SC	B1034.005 - PP-03
	06	FIB SC B1034.006 - PP-04			⊡ 06	06	FIB	SC	B1034.006 - PP-03		
	07	FIB	SC	B1034.007 - PP-04				± 07	FIB	SC	B1034.007 - PP-03
	08	FIB	SC	B1034.008 - PP-04				B 08	FIB	SC	B1034.008 - PP-03
	09	FIB	SC	B1034.009 - PP-04				e 09	FIB	SC	B1034.009 - PP-03
	10	FIB	SC	B1034.010 - PP-04				10	FIB	SC	B1034.010 - PP-03
	11	FIB	SC	B1034.011 - PP-04				· 11	FIB	SC	B1034.011 - PP-03
	12	FIB	SC	B1034.012 - PP-04				■ 12	FIB	SC	B1034.012 - PP-03
• 0	13	FIB	SC		_	_		13	FIB	SC	
	14	FIB	SC		_			14	FIB	SC	
	15	FIB	SC					· 15	FIB	SC	
	16	FIB	SC	=				16	FIB	SC	
	17	FIB	SC					· 17	FIB	SC	
	18	FIB	SC			-		18	FIB	SC	
	19	FIB	SC		X 12			· 19	FIB	SC	
	20	FIB	SC			-		· 20	FIB	SC	
	21	FIB	SC			-		1 21	FIB	SC	
	22	FIB	SC		_			· 22	FIB	SC	
	23	FIB	SC			_		3 23	FIB	SC	
	24	FIB	SC					24	FIB	SC	

3.2.1.1 The Backbone Grid

The Backbone Grid will show you a list of all the backbone segments in your project and allow you to modify their status or delete the entire backbone cable group at once. The status will refer to whether the backbone is in use, proposed, dead ETC. New backbone status can be created in the project settings menu. There are 3 default status available; in use, proposed & dead.

The Backbone Grid is easier to use than the Cables Database if you are looking for basic information about a backbone such as number or origin and destination information or if you are simply wanting to change the status of the backbone.

To access The Backbone Grid, type **BBG** in the command line.

With The Backbones Grid open, a list of all created backbones and cores will show along numerous columns of information about each backbone core.

-t Explorer A X	Start Page 🔘 Backbo	ones @																		
tt Explorer ↔ ×		× 🙂 -																		
ent Project: Lawa Test Main	Backbones Preview	(
*																				
	Backbones	le Type Cable No	SRC Sys	Dest Sys	SRC Pin	Dest Pin	SRC Loc	SRCE	Dest Loc	Dest El	SRC Conn	Dest Conn	Multi Core	Available	Status	Owner Is	s Riser I	Is Backb	Fiber Mode	
Global Databases	Cable Ty Cable ▼ Cable No Pref		SKC Sys	Dest Sys	SKC PIN	Dest Mn	SRC LOC	SRCE	Dest Loc	Dest El	SKC Conn	Dest Conn	Multi Core	Available	Status	Uwner Is	i kuser i	IS BADKD	Piber Mode	
-U Equipment Library	# WES LAV		AD-0001	CC-59-5	FBR01	FBR67	Location		Location		2	2			PROPOSED .		٠	1		
Signal Types Cable Types											2	2					•	N N		
Connectors	WES LAV		AD-0001	CC-59-5	FBR02	FBR68	Location		Location						PROPOSED					
Permissions	· WES LAV		AD-0001	CC-59-5	FBR03	FBR69	Location		Location		?	?			PROPOSED		۰	V		
Color Codes	· WES LAV		AD-0001	CC-59-5	FBR04	FBR 70	Location		Location		\$	2			PROPOSED		۰	M		
Projects	· WES LAV		AD-0001	CC-59-5	FBR05	FBR71	Location		Location		?	?			PROPOSED		۰	V		
🙀 Lawa Test Main	· WES LAV		AD-0001	CC-59-5	FBR06	FBR72	Location		Location		?	5			PROPOSED		۰	M		
 Project Drawings 	· WES LAV		AD-0001	CC-59-4	FBR07	FBR67	Location		Location		?	?			PROPOSED		۰	✓		
🔁 New Drawing	· WES LAV		AD-0001	CC-59-4	FBR08	FBR68	Location		Location		?	?			PROPOSED		۰	2		
🚰 Open Drawing(s)	. WES LAV	VA MM B1001.09	AD-0001	CC-59-4	FBR09	FBR69	Location		Location		?	?			PROPOSED		۰	V		
	WES LAV	VA MM B1001.10	AD-0001	CC-59-4	FBR 10	FBR 70	Location		Location		?	?			PROPOSED		۰	1		
- Systems	. WES LAV	VA MM 81001.11	AD-0001	CC-59-4	FBR 11	FBR71	Location		Location		2	2			PROPOSED		۰	1		
- 🎲 SysName Format	. WES LAV	VA MM 81001.12	AD-0001	CC-59-4	FBR 12	FBR72	Location		Location		?	?			PROPOSED		۰	1		
Cables	. WES LAV	VA MM B1001.13	Available	Available	Available	Available	Location		Location		Available	Available		1	SPARE		۰	1		
🎲 Cable Number Format	. WES LAV	VA MM B1001.14	Available	Available	Available	Available	Location		Location		Available	Available		1	SPARE		۰	1		
🛅 Drawings	. WES LAV	VA MM 81001.15	Available	Available	Available	Available	Location		Location		Available	Available		5/	SPARE		•	V		
🔲 Named Paths	· WES LAV	VA MM 81001.16	Available	Available	Available	Available	Location		Location		Available	Available		N.	SPARE		•	V		
E Next Numbers	. WES LAV		Available	Available	Available	Available	Location		Location		Available	Available		N.	SPARE		•	N.		
To Do List	. WES LAV		Available	Available	Available	Available	Location		Location		Available	Available		N	SPARE		•	N.		
Related Projects (Read Only)	© WES LAV		Available	Available	Available	Available	Location		Location		Available	Available		N.	SPARE		•	N.		
Reports	© WES LAV		Available	Available	Available	Available	Location		Location		Available	Available		N N	SPARE		•	N N		
New Report	WES LAV		Available	Available	Available	Available	Location		Location		Available	Available		N N	SPARE		•	N N		
New Report with Wizard														N N	SPARE			N N		
Cable Labels	· WES LAV		Available	Available	Available	Available	Location		Location		Available	Available					•	N N		
- 1x2_SNO_LOGO.repx	WES LAV		Available	Available	Available	Available	Location		Location		Available	Available		▼	SPARE		•			
- 1x3NO_BAR.repx	WES LAV		Available	Available	Available	Available	Location		Location		Available	Available		V	SPARE		۰	V		
- BRADY 188X 133NOSIGSHET	▼ Cable No Pref																			
- BRADY 1X 133BAR.repx	· WES LAV		AD-0003	CC-54-4	FBR01	FBR01	Location		Location		?	?			PROPOSED		۰	2		
- BRADY 1X 133SD.repx BRADY 75X 150NO.repx	WES LAV		AD-0003	CC-54-4	FBR02	FBR02	Location		Location		?	2			PROPOSED		۰	2		
- BRADY_JET_30.repx	· WES LAV		AD-0003	CC-54-4	FBR03	FBR03	Location		Location		?	?			PROPOSED		۰	M		
BRADY_JET_31.repx	· WES LAV	VA MM B1002.04	AD-0003	CC-54-4	FBR04	FBR04	Location		Location		?	?			PROPOSED		۰	V		
- BRADY_THT_75_SD.repx	WES LAV	VA MM B1002.05	AD-0003	CC-54-4	FBR05	FBR05	Location		Location		?	?			PROPOSED		٠	V		
- BRADY_THT_9_SD.repx	WES LAV	VA MM B1002.06	AD-0003	CC-54-4	FBR06	FBR05	Location		Location		?	?			PROPOSED		۰	1		
- HT_10L_NO_TYP_SHEET.re	WES LAV	VA MM B1002.07	AD-0003	CC-54-4	FBR07	FBR07	Location		Location		?	?			PROPOSED		۰	1		
- HT_223_BAR.repx																		•		
- HT_26J_NO.repx																				
- HT_SL_NO.repx	Information:																			
- HT_63L_SD.repx																				
1 F	× Executing Command:	ShowBackbonesGrid																		

	Edit
Copy Selection Down	Create a selection vertically in the grid and click Edit>Copy Selection Down or Ctrl+D and the topmost cell's data will be copied to all selected cells below.
Delete Selected Backbone	This function will delete ALL cables associated with the selected Backbone. If you are just trying to delete a single cable you should do that from the Cables database.
Refresh	Query the database and reload the data into the grid.
	Tools
Attach Document	Useful for storing field survey reports and other documents associated with this backbone. You can attach as many documents as you need. The documents are stored in the database. You can click on the link provided in the grid to launch the document into the system document reader for that file extension (MIME Type).
Rename Source Connecotor(s)	Renames the Source Connector (SrcConn) field and any jumpers or horizontal cables attached to this backbone.
Rename Destination Connector(s)	Renames the Destination Connector (DestConn) field and any jumpers or horizontal cables attached to this backbone.
Rename FiberMode	Renames the Fiber Mode (FiberMode) field and any

While a number of fields are shown in **The Backbone grid**, only the **Status**field & **Owner** field are modifiable. All other fields are simply shown for reference.

Note: When marking a backbone as dead you must make sure that this cable is no longer used in an active circuit. If WireCAD detects that this backbone is still in use, you will be presented with a warning message stating "Cannot mark a cable as DEAD that is part of an existing Circuit. Please remove the Cable from the Circuit, then change its status. "

↓ ↓	×
Cannot mark a cable as DEAD that is part of an exis Please remove the cable from the Circuit then chang	
ОК	

Note: You will also receive a warning message if you try to delete a cable that is part of an existing circuit. You must remove the cable/backbone from the circuit before deleting. If you wish to delete individual cores, you can do so from inside the cables database however this information will not persist back into the CAD drawings.

	×
annot delete a Backbone that is associated to any Circuit. e delete any circuits that use the Backbone before attempting to delete the Backbone	
ОК	

Note: When deleting a backbone in **The Backbone Grid**, the entire group of cables will be deleted even if you have only selected a single core. Make sure that you want to delete the entire backbone segment before selecting delete.

Note: Deleting backbones in **The Backbone grid**, does not adjust number sequence. If you wish to reuse deleted backbone numbers, you will need to manually access the **Next Numbers Grid** and change the next available number to the one you would like to use. Example, you have created backbones 1001,1002,1003 & 1004. The next number in the sequence would be 1005. If you then delete 1002,1003 &1004, the Add Backbone Segment Tool will label the next backbone as 1005. To reuse 1002, 1003 & 1004, you need to manually select these as next in the sequence by doing so in the <u>Next Numbers</u> [187] Grid.

3.2.1.2 How To Create a New Backbone

Explanation

The following procedure details the creation of backbones in the CMS module. Backbones are multi-core cables in the cables database that interconnect two (or more) patch panels.

Note: While this tool is open in your window other WireCAD users will be locked out of the Cables table of the Project database.

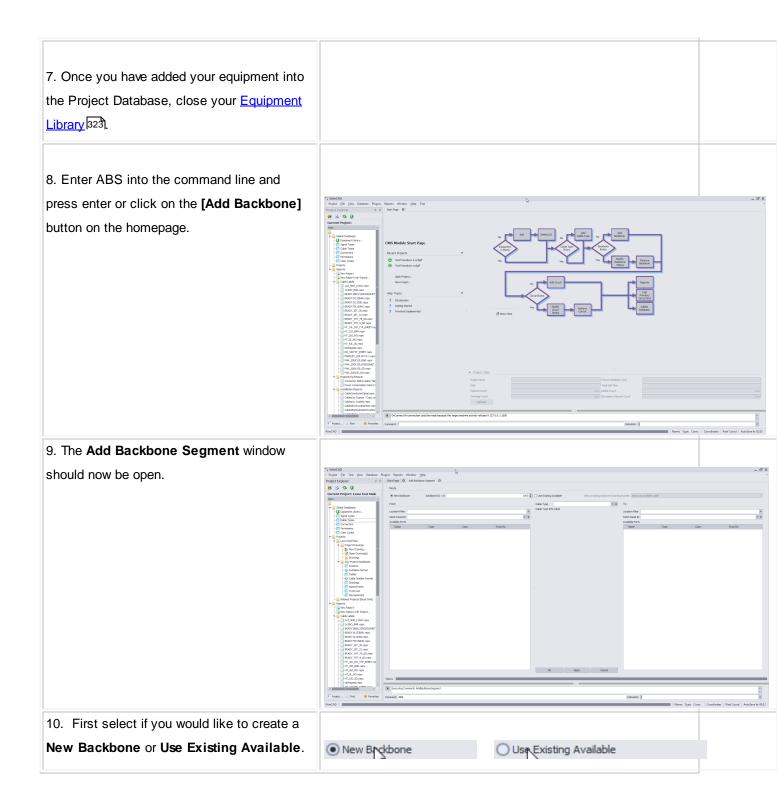
HOW TO...

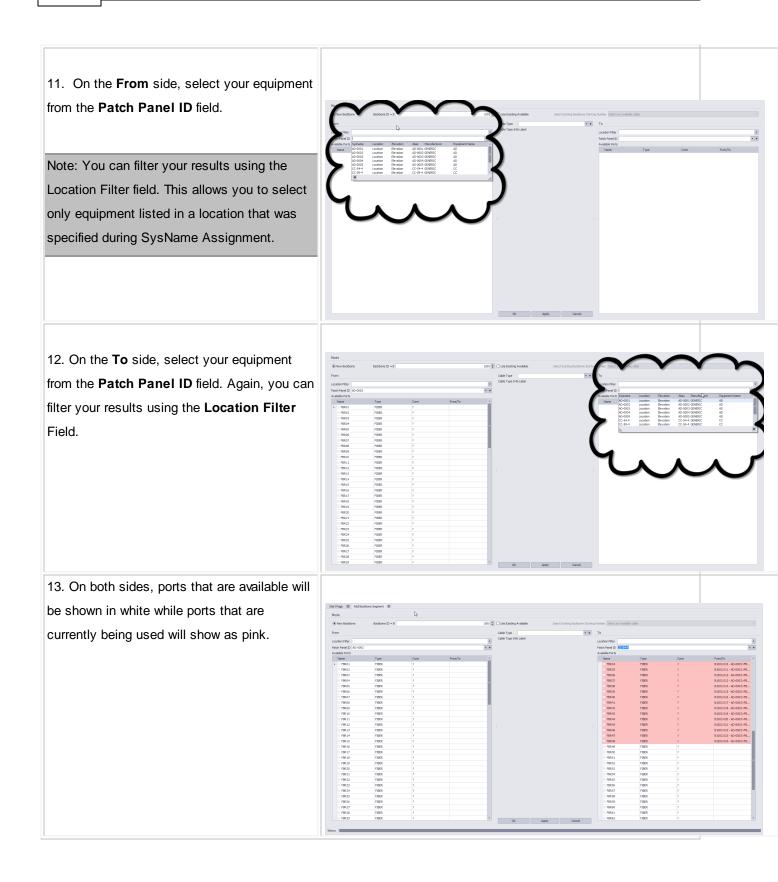
1. Make sure you have used the steps above to create your Equipment 177, Customize your I/O and create your Cable Types

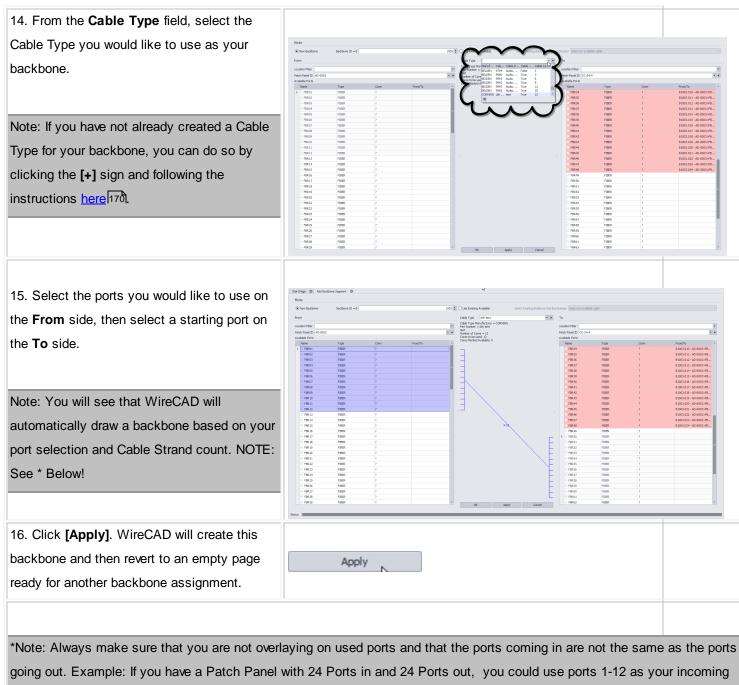
WireCAD ENTerprise CMS Tools 131

2. Access your Equipment Library [323].	÷ E	quipment	Library					
		Manufactu	rers Grid					
	E	quipment	Grid					
		Global Con	nectors Grid	1				
		Cable Type	s Grid					
		ignal Type						
	P	roject Cal	oles	•				
	P	roject Sys	tems	•				
	I	Named Pat	hs Grid					
	Т	Todo List G	irid					
	I	mport Proj	ject Data Wi	zard				
	×ι	Jtilities		•				
	S	ync Equip	ment Librari	ies				
		mport Old	Equipment	Library				
3.Find the equipment you would like to use								
and click [Add to Project Database Only].								
	*1 Equipment Library(VIST) Ete _ Est	A): [GENERIC]-[AD]	₽					– đ ×
	Find Detail 1,10 Dis Find generic @Lacal	ploy Treferences			Table of The Press and		Find	• 5
Note: You can add as many pieces of	Community Server	Manufacture/Name	Test Come Equipmentitione	ction EaujomentDescription	Equipment Type (SysName Prefix)	bPlanufacturer#aproved	Attempting to Connect to Community Server IsManufacturerOreated	4
Note. You can add as many pieces of	right-click to add image right-click to add image right-click to add image	GENERAC GENERAC	110 BLOCK 24 Port Fiber Patch SC	110 BLOOK 24 Part Path	8.K 29	•	•	
equipment you as you would like at this time	right-click to add image right-click to add image right-click to add image	GENERIC GENERIC	66053 A1 AC	Punch Block Audio AMP 24 FORT RUHS PATCH PANE,	PB AMP DATA PATCH	•	•	
	d inght-click to add image inght-click to add image	GENEROC GENEROC	40 4-0	Laniji AD A-O CONVERTER	AD CONV	•	•	
however you will need to have at least the 2	right-click to add image right-click to add image right-click to add image	GENERAC GENERAC GENERAC	ANY BRIDGE CABLE	KIM DEVICE DUMMY BRIDGE TERHENAL BREAKOUT CABLE	KIM BRIDGE BREAKDUT CABLE	•	•	
nowever you will need to have at least the 2	right-dick to add image right-dick to add image right-dick to add image	GENERAL GENERAL	CATS BALLN CC	CATS BALLN Lava CC	CONV CC	•	•	
definitions that the Backbone are linked to.	right-click to add image right-click to add image right-click to add image	GENERAC GENERAC	CONFORMET MONITOR. Controller DA 1-13	PICNT Traffic Controller	MONT CTL	•	•	
	ight-click to add image	GENERAL GENERAL	DAC DVD Player	D-A COWERTER DVD Rayer	CON/ Video	•	•	
	right-click to add image right-click to add image	GENERAC GENERAC GENERAC	DVD-R. DVP B CD	DVD Recorder DISITIAL VIDEO PROCESSOR 96 Pm Breakout	Video DilP	•	•	View
	right-click to add image	GENERAL GENERAL	ENET SWITCH EQUIP	Switch	SW EXIST	•	•	Plan ONW
	right-click to add image right-click to add image right-click to add image	GENERAC GENERAC GENERAC	MOX KE DRAMER	SENSLE VEDED SACK Keylloard Draver	17 G	•		Display As:
	nght-click to add image nght-click to add image nght-click to add image	GENERIC GENERIC GENERIC	KOM Mic Preamp Medipident	KM Hic Preamplifier delete me	NUM MODRE MN	•	•	Conceptual 3,10 (km) Conceptual 3,10 (HgH) Pront Rand (Hie Merge) Pront Rand (Hie Merge)
	inght-click to add image inght-click to add image inght-click to add image	GENERAL GENERAL	MUX POTS	POTS RP DA	MUX POTS	•	•	O Front Panel (From Dima)
	in spht-click to add image	GENERAC GENERAC	RF DA SPEAKER	FP DA SPEAUR Ginh Swatter	SP DA SPK	•		Add Equipment to Library
	right-dick to add image right-dick to add image right-dick to add image	094900 GENERAC GENERAC	SWR TSA TIVO RECORDER	ORD: Switcher TONE GENERATOR TIVO RECORDER	15 15 17/0	•	•	Law a sponter transferry
	sold cick to add image	CONFECT.	185	195	05			Add to Project Database Only
	 Community Rating System 	em						Add to Carls

					1
4. A new SysName window will pop up asking					
you to verify information about this equipment.	New Sysname for C	CFE-FOT FC			×
The next available SysName will automatically	Manufacturer	CFE	• Equipment Name	FOT FC	~
	Sysname	FOT-0001			▼ New
populate.	Alias	FOT-0001			
	Location	Location 🔻	+ Elevation	Elevation	Ŧ
	User 1		User2		
	User3		User4		
	IP Address Power Consumption		Subnet Mask Power Consumption Uni	t	
	Weight		Weight Unit		
	Flags		•		
				Add Many Add	Cancel
	Status				
5. Enter in your location for this equipment.					
Example: Admin Basement Telephone Room.	New Sysname for 0	CFE-FOT FC			×
	Manufacturer	CFE	* Equipment Name	FOT FC	Ţ
	Sysname	FOT-0001			• New
	Alias	FOT-0001			
	Location	Location	+ Elevation	Elevation	•
	User 1	LAX. 12TH FLOOR LAX. ADMIN WEST. 1ST FLOOR. DATA CENTER	â		
	User3	LAX.ADMIN WEST.DATA CENTER	_		
	IP Address	LAX.AE TWR. 10TH FLOOR.ROOM 1008 LAX.AE TWR. 12TH FLOOR			
	Power Consumption	LAX.AE TWR. 12TH FLOOR LAX.AE TWR. 12TH FLOOR	on Ur	nit	
	Weight Flags		*		
	2				
				Add Many Add	Cancel
	Status				
6. If there are multiple pieces of the same					
equipment in this location, you can select the	New Sysname for	CFE-FOT FC			1
[Add Many] to create multiple pieces of	Manufacturer	CFE	 Equipment Name 	FOT FC	T
equipment at the same time.	Sysname	FOT-0001			▼ New
equipment at the same time.	Alias	FOT-0001			
	Location	Location	+ Elevation	Elevation	•
	User 1		User2		
Note: WireCAD will automatically SysName	User3 IP Address		User4 Subnet Mask		
each piece of equipment using the next	Power Consumption		Power Consumption	Unit	
each piece of equipment using the next	Weight		Weight Unit		
available number in the sequence.	Flags		Ŧ		
			(Add Many Add	d Cancel
	Status				







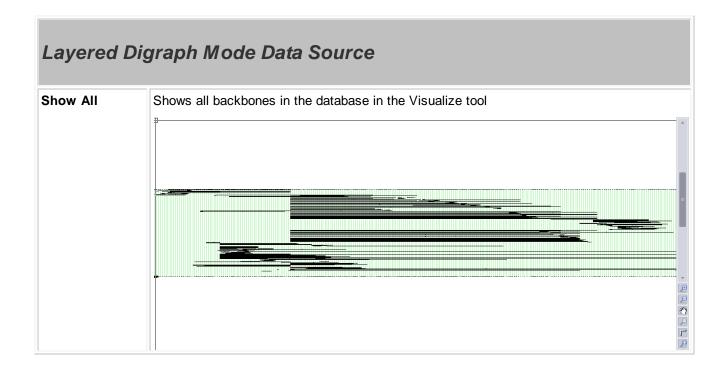
ports and 13-24 as your output ports. This allows the other 12 ports on each side to be used for jumpers to other equipment while maintaining a backbone infrastructure.

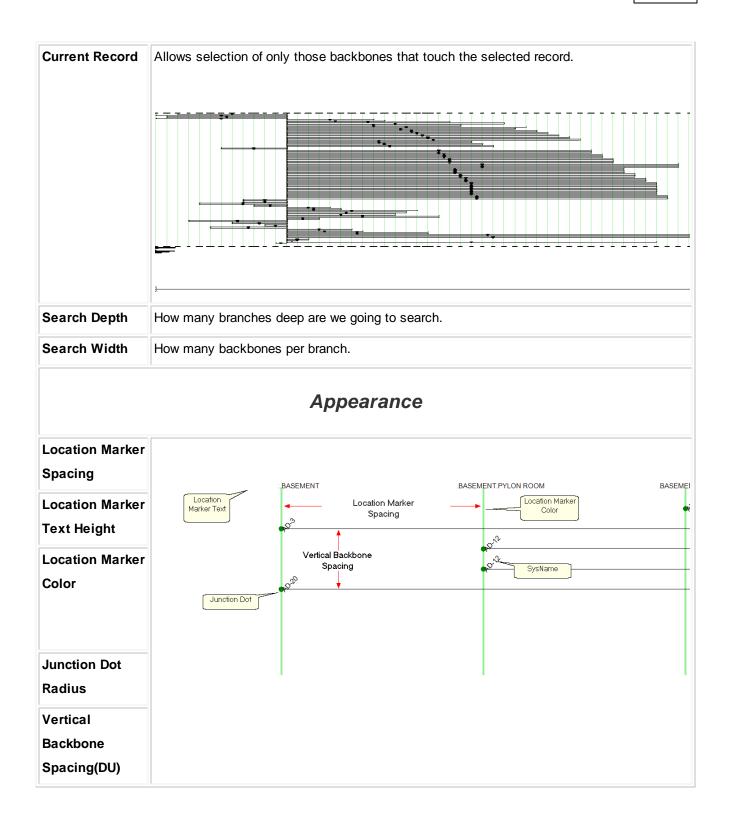
3.2.1.3 Backbone Visualization Settings

Before You Start:

In order to preview Backbones you will first need to Add Backbones 130

These settings determine the display of the <u>Backbones Visualize</u>^[142] tool.





Center Label	String used to create the center label. Can make use of the following variables:
Format	{0} = Backbone Number
	{1} = Total Count
	{2} = Total Available Count
	{3} = Total Dead Count
	{4} = Single Mode Fiber Count
	{5} = Available Single Mode Fiber Count
	{6} = Dead Single Mode Fiber Count
	{7} = Multimode Fiber Count
	{8} = Available Multimode Fiber Count
	{9} = Dead Multimode Fiber Count
	Example:
	assume that our backbone number is 1001 with 12 single mode fibers of which 1 is dead and
	four are in use.
	String:
	B{0}-SM COUNT:{4} Avail:{5} Dead:{6}
	Output:
	B1001-SM COUNT:12 Avail:8 Dead:1
	String:
	B{0}
	Output:
	B1001
Center Label	Offset from center in DU
Offset	
Show	Shows the SysName labels
SysNames	

Ignore Same Locations	Hides backbones that originate and terminate in the same location
SysName Rotation Angle	Sets the rotation angle of the SysName label if shown
SysName Text Height (100th DU)	Sets the height of the SysName text if shown
SysName Text Offset	Offset from the endpoint of the backbone

Riser Diagram Mode

Building - <
ਦਰ -ਦਰ ਦਿੱਤ -ਦਰ -ਦਰ -ਦਰ -ਦਰ -ਦਰ -ਦਰ

Layout	Determine the layout of the panels in the diagram							
Max Columns,								
Column	5th floor							
Spacing,								
Minimum Row	4th floor							
Height								
	3rd floor							
Body Color,	Determines the appearance of the body of the panels in the diagram							
Body Width,								
Descriptor								
Locations								
Show Terminals	If the other end of the Backbone is not in the selected building a terminal will be placed and a							
if Backbone	backbone drawn to it. The terminal's position from the port on the panel is determined by the							
Leaves the	Terminal Offset property.							
Building,								
Terminal Offset								
	Place Terminal if Backbone Leaves the							
	Building							
	TB-1							
	001-012 <u>SCA B00156.MM B00156.MM</u> 013-024 Alias							
	1Terminal GENERIC Offset							
	72 PORT PANEL							

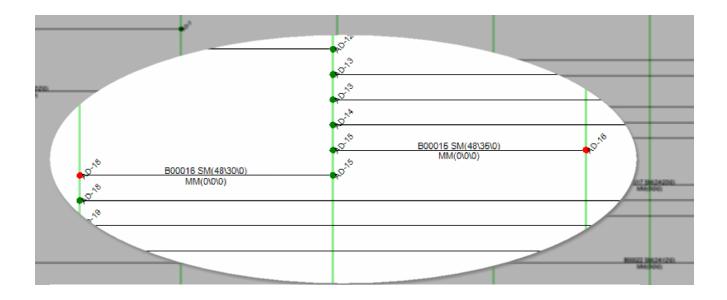
Apply Jumps						
Avoid Other Cables	Instructs the cable autorouter to attempt to avoid other cables.					
Show Unresolved Backbones	If the Backbone cannot be placed in the drawing a list is generated. Enabling this setting shows the list as the function completes.					
	Title and Comment Block					
Show Title Title Position	Sets the visibility of the title/comment block					
Show Time Stamp	All Backbones					
Title Text Height (100th DU)	Legend: Backbone # (Strand Count \ Available Strands \ Dead Strands) Dead Strands Show in Available Strand Count Tuesday, May 07, 2013					
Title Offset Title						

Misc.							
Backbone Color by Signal Type							
Show Directional Coloring	Shows green dots for the source end of the backbone and red dots for the destination end if shown.						
Backbone Color	Sets all backbones to the color defined.						
[Reset Default]	Button to reset the settings to the defaults.						

3.2.1.4 Backbone Visualization Layered Digraph Ouput

The Backbone Visualization tool creates a layered digraph showing the backbones horizontally and the locations in which they originate and terminate vertically.

The backbones displayed, and many of the display parameters can be set using the [Visualization Settings] [136] tab.



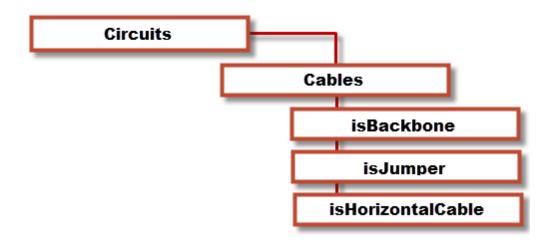
3.2.1.5 Backbone Preview Export

Exporting the CAD preview of the Backbones Visualization tool is as easy as clicking the [Export] button.

Note: The current preview will be exported based on the Export Settings found in the <u>Application Menu > Settings</u> [Project][Export Settings] [193] tool.

3.2.2 Circuits

A circuit in WireCAD is defined as a collection of cables. Each circuit may have a Name, Description, and other meta data. A circuit also has a strand count to indicate the number of connections made from the originating device on through to the terminating device. Circuits have a one-to-many relationship with the cables in the Cables database. Each circuit may have many cables but a cable can belong to only one circuit.

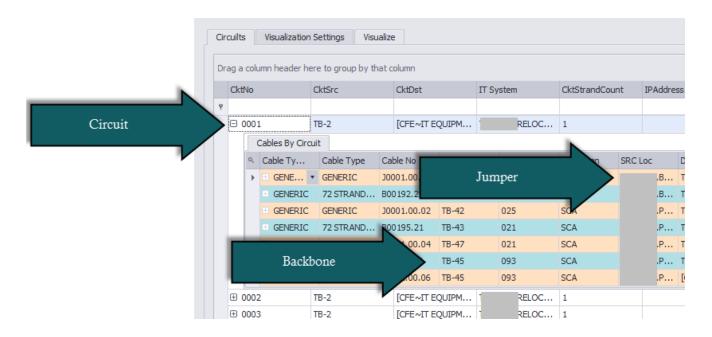


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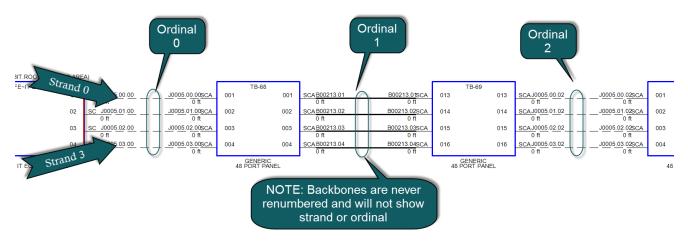
3.2.2.1 Circuits Grid

The Circuits Grid presents the overall circuit data in list form with the child cable data attached for view.

Open the Circuits grid by double-clicking the icon in the Project Explorer [Project Databases][Circuits] Command Line Shortcut: cmscg



Tools					
Attach Document	Useful for storing field survey reports and other documents associated with this circuit. You can attach as many documents as you need. The documents are stored in the database. You can click on the link provided in the grid to launch the document into the system document reader for that file extension (MIME Type).				
Rename Circuit	Renames a circuit and all of its cables				
Combine Circuit	See the topic <u>Combining Circuits</u> 167.				



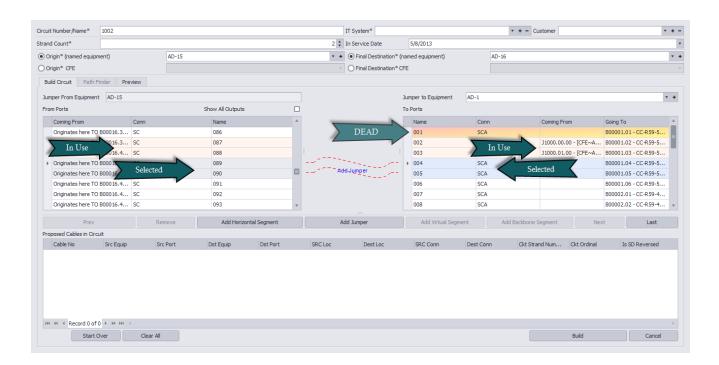
Strand Count and Ordinal Explanation

WireCAD uses the strand and ordinal to know the exact position of a cable in a circuit. Strand 0 will always be the topmost cable in the circuit with Strand n being the bottommost cable in a circuit. Ordinal 0 will be the leftmost set of cables in the circuit with Ordinal n being the rightmost set of cables in the circuit.

3.2.2.2 New Circuit Tool

The New Circuit tool is used to connect *Field End & Head End* Equipment together by adding jumpers between existing Backbones. Each circuit is comprised of descriptive data, such as **Name, Customer, IT System** or **Description**, **source** and **destination equipment** (SysNames); as well as a collection of cables in the Cable database. You simply select the ports that you wish to jumper from/to and add the jumpers/back bone segments to the **Proposed Cables list**. A **Path Finder** tool helps you search out possible routes. A **[Preview]** window presents the functional block view of the **Proposed Cables**. Once you are happy with the circuit, simply click **[Build]** and all Proposed cables will be added and associated to the named circuit.

To open the New Circuit tool open the Circuits grid and click **File>New** Command line shortcut: **nc** Note: While this tool is open in your window other WireCAD users will be locked out of the Cables table of the Project database.



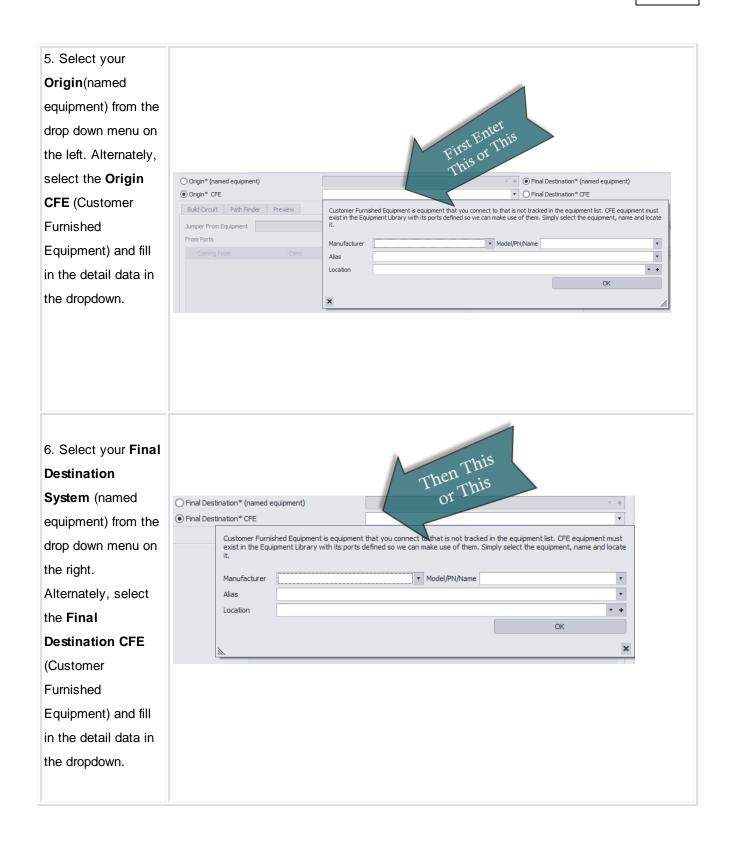
3.2.2.2.1 Create New Circuit

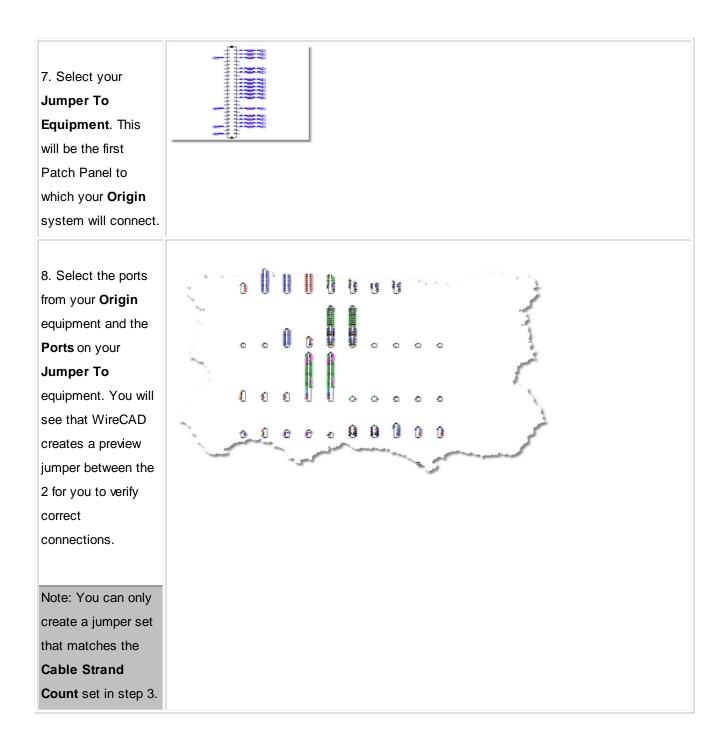
Before you Start

The use of this tool assumes the following:

- That you have added Backbones to the project.
- That you have added the necessary Cable Types to the global Cable Types 419.
- That you have an idea of what you want to connect together and that you know the first bit of infrastructure to which you will attach.
- That you have created your Customer Furnished Equipment(CFE) in the Equipment Library [323] for the originating and final destination equipment devices and/or that SysNames have been created for each individual piece of equipment to which you will attach.

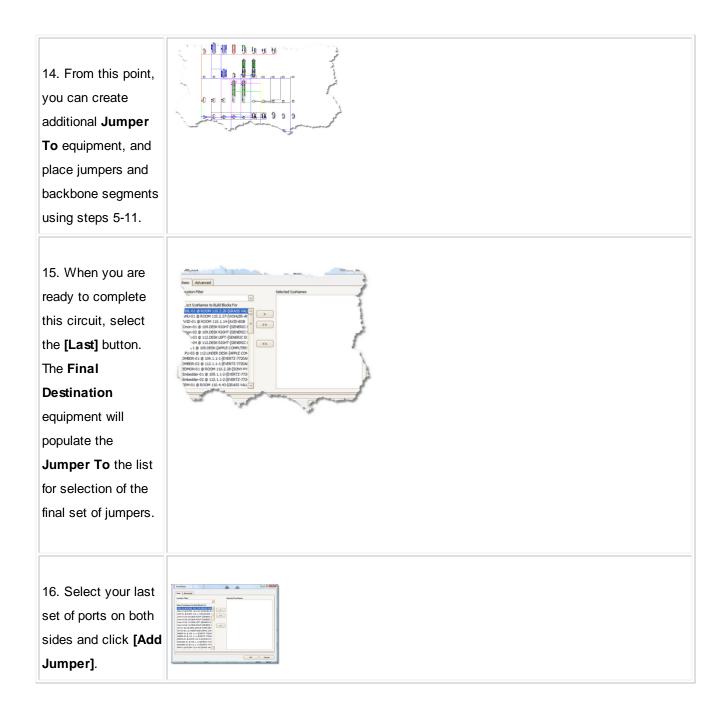
How to create a New Circuit							
	e created all your Equipment and Cable Types needed for this circuit. Grid click [File>New] to launch the New Circuit tool.						
3. Verify that your Circuit Number/ Name is correct and that it is not duplicating an existing entry.	Circuit Number/Name* O 196 Trouble Here. Number Exists						
4. Enter your IT System and Customer info.	Grant Norber/Ners* 0,255 Stand Gast* 11 Strates* © Orget Monte Automet 10 Strates for the Orgen tog Eagonet © Orget Yes 10 Find & December Yes MAI Crack Path Path Path Path Strate Path Strate						
Note: IT System is required. You will not be able to [Build] without an entry.	Perv Renove Add Instantial Segment Add Jumper Add Valial Segment Add Bactione Segment Next Last Papered Celler In Gradt Soc Egape Soc Part Datifiert Soc Egape Out Stand Rander Out Other Is 50 Renered						
	ин н + Record G of 0 + и ин +						





9. Click [Add	Connector String Mismatch								
Jumper].	One or more of the connector types are mismatched. Do you want to continue?								
Note: If you have									
connector types that WireCAD believes	You can turn this warning off from Project>Settings User[CMS]								
do not match, you	Yes No								
will be presented with a window									
stating "Connector									
String Mismatch". If									
you want to turn this									
message off, you									
can do so in the									
Application Menu									
>									
Settings>UserCMS.									
10. Click the	Next >								
[Next>] button.									





17. If you would like to see a Functional Block Diagram preview of this circuit, click the [Preview] tab.	
Note: Preview will be	
generated with	
Project Settings.	
18. Click the [Build]	Build
button to finalize this	
circuit.	
Note: If you have not	
filled in the required	
fields or if the circuit	
Number/Name is	
not unique the	
[Build] process will	
not continue. Look	
for the ³ icon to	
indicate fields that	
require attention	

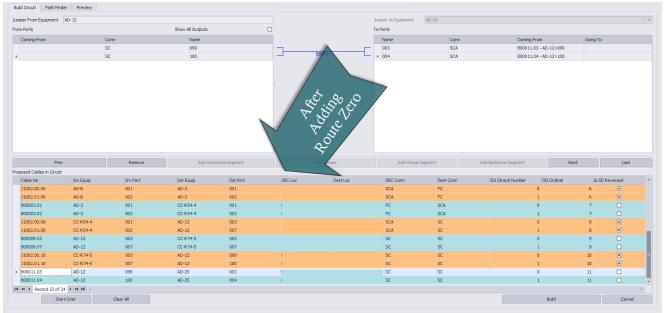
3.2.2.2.2 Path Finder Tab

Explanation:

The Path Finder tool can be used to find available ports and backbone segments from a source to a destination. The Path Finder tool will search the backbone structure for backbones that can be used to get from the source panel to the destination panel, then once a route is established the route candidate is checked for available port count. If all criteria are met the route is returned. If no routes can be established you will be notified.

om	AD-36				 Last Existing 	AD-25					
	Find			Cancel	Use Route Numbe	r 🖉		•	Add Selected Route to Circuit		
arch Depth		8 ‡ Search Width	1	50 🗘 💿 Show All	O Show Backbor	ies Only		Show Only First Path Found	O Show On	ly Least Link Path	
			Found 2 can	didate routes of which	0 failed due to overpopulat	on. The short	est route has 6 backbones w	hile the longest has 6			
Cable No Prefix	Cable No	SRC Sys	Dest Sys	SRC Pin	Dest Pin	SRC Loc	Dest Loc	Ckt Strand Number 🔺 Ckt Ordinal	 Route Number 	▲ Made It	
800028	B00028.07	AD-33	AD-36	031	007		12TH FLO. 10TH	FLO 0	1	0	
B00028	800028.08	AD-33	AD-36	032	008	WR	120	1	1	0	
J1002	J1002.00.02	AD-33	AD-8-P1	031	001	-XAD		0	2	0	
J1002	J1002.01.02	AD-33	AD-8-P1	032	002			1	2	0	
B00008	B00008.01	AD-8-P1	AD-9	001	001			0	3	0	
800008	B00008.02	AD-8-P1	AD-9	002	002		S	1	3	0	
31002	J1002.00.04	AD-9	AD-7	001	001		Segments Proposed Route	0	4	0	
J1002	J1002.01.04	AD-9	AD-7	002	002		Segment Proposed Route	1	4	0	
800007	B00007.01	AD-7	AD-8	001	001		es	0	5	0	
B00007	B00007.02	AD-7	AD-8	002	002		4 o 3	1	5	0	
J1002	J1002.00.06	AD-8	AD-3	001	001		d	2 0	6	0	
31002	31002.01.06	AD-8	AD-3	002	002		mío c		6	0	
B00003	B00003.01	AD-3	CC-R54-4	001	001		Segme Propos Rolute	0	7	0	
B00003	B00003.02	AD-3	CC-R54-4	002	002	1.1	아머머	1	7	0	
31002	31002.00.08	CC-R54-4	AD-12	001	003))	× c	0	8	0	
J1002	J1002.01.08	CC-R54-4	AD-12	002	007	20	Six In	1	8	0	
B00009	B00009.03	AD-12	CC-R74-5	003	003		0)	0	9	0	
800009	B00009.07	AD-12	CC-R74-5	007	007			1	9	0	
J1002	31002.00.10	CC-R74-5	AD-12	003	099			0	10	0	
J1002	J1002.01.10	CC-R74-5	AD-12	007	100	COMO		1	10	0	
B00011	B00011.03	AD-12	AD-25	099	003		"SEMO	COOR 0	11		√
B00011	B00011.04	AD-12	AD-25	100	004		. WR.4TH F	LOOR 1	11	0	1
J1002	J1002.00.01	AD-36	AD-8-P1	007	001			0	1	1	
J1002	31002.01.01	AD-36	AD-8-P1	008	002			1	1	1	
B00008	B00008.01	AD-8-P1	AD-9	001	001			0	2	1	
800008	B00008.02	AD-8-P1	AD-9	002	002			1	2	1	
31002	31002.00.03	AD-9	AD-7	001	001			0	3	1	
J1002	J1002.01.03	AD-9	AD-7	002	002			1	3	1	
B00007	B00007.01	AD-7	AD-8	001	001			0	4	1	

2 possible routes returned each with 6 segments. We will use Route 0.





Path Finder					
From	Pre populated by your selection with the last jumper added in the Build tab.				
Last Existing	Select the last existing piece of infrastructure that we will search for.				
[Find]	Start the search.				
[Cancel]	Cancel the search.				
Use Route Number	Once routes are returned for selection this dropdown will be populated with the available routes.				
[Add Selected Route to Circuit]	Once you have selected a route this button will enable for you to add the route to the Proposed Cables to Add to Circuit list on the[Build] tab.				
Search Depth	How deep to search more will take longer but find more routes				

Search Width	Maximum candidate routes to search
Show All	Show all routes found and populated with jumpers
Show Backbones Only (for research)	Show only the backbones without jumpers. Useful for research.
Show Only First Path Found	Stop searching when the first route is resolved.
Show Only Least Link Path	Search all then prune the list to the route with the shortest number of segments.

Found Paths Grid

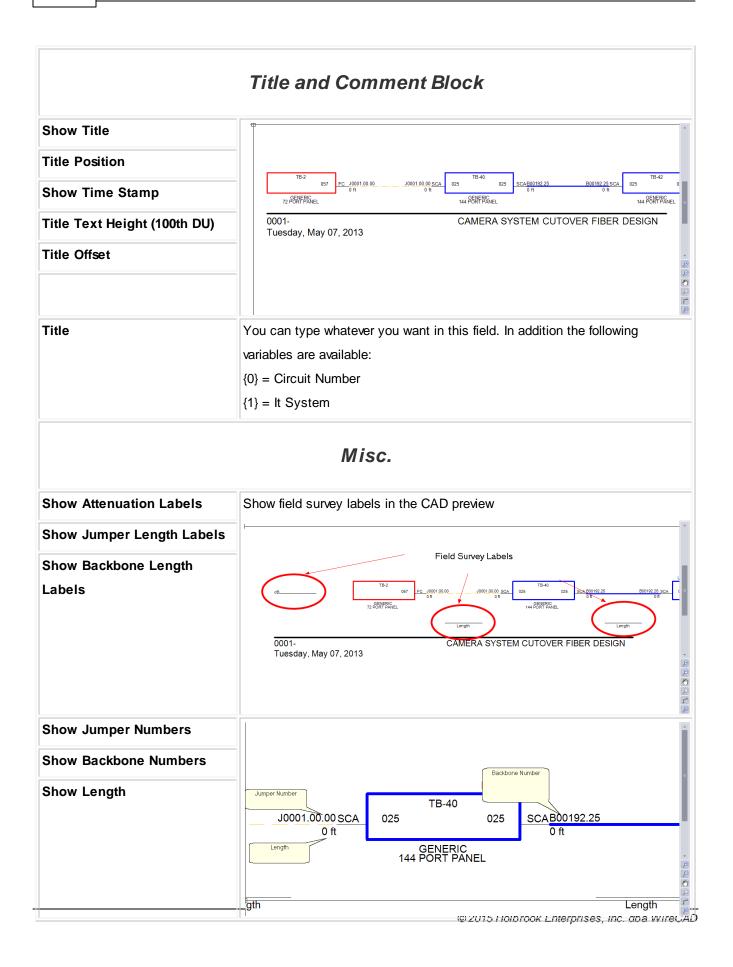
Cable No Prefix, Cable No, SRC Sys, Dest Sys, Src	Fields pulled from the Cables database or populated by
Pin, Dest Pin, Src Loc, Dest Loc	jumpers that would need to be created to complete this circuit along this route.
Ckt Strand Number	For more information about circuit strand and ordinal
Ckt Ordinal	<u>see here</u> n451.
Route Number	The router may find multiple paths or none. If paths are found they will be returned with a route number. You may then select the which, if any, route to add to the circuit.
Made It	Indicates that the route made it to the destination. All routes shown will show Made It on the last segment.

3.2.2.3 Circuits Preview Settings

Circuilts Visualization Set	tings Visualize						
Source Shape 🚺 A stan	dard functional block appearance	Middle Equipment Shape	A standard functional block appearance	•	Destination Shape	standard functional block appe	arance 🔻
Source Width (100th DU)	500 🖨	Width		200 ‡	Destination Width (100th DU)		500 ‡
Source Body Color	0	Color	(0,0,255)	٣	Destination Color	0	٣
Descriptor Locations	SysName: 13 Manufacturer: 17 EquipmentName: 18 Alias:	Descriptor Locations	SysName: 13 Manufacturer: 17 EquipmentName	e: 18 Ali ···	Descriptor Locations	SysName: 13 Manufacturer: 1	7 EquipmentNa
🗹 Merge and Center Text In	Body		Text Height				25 ‡
Backbone Color	4	Jumper Color	39	٣	Horizontal Cable Color	ByLayer	٣
Layout							
Max Columns	5 🗘	Column Spacing		6 🗘	Row Vertical Spacing		19 💲
Title and Comment Blo	ck						
Show Title			Title	{0}			A.
Title Position	BottomLeft		*				V
Show Time Stamp							
Title Text Height (100th DU)			50 \$				
Title Offset	HI 0,-1,0		*				
Misc.							
Show Attenuation Labels	Show Jumper Length Lab	els	Show Backbone Length Labels				
Show Jumper Numbers	🗹 Show Backbone Numbers		Show Length				
🗹 Auto Router Avoid Other	Cables						

Appearance		
Source, Middle and Destination Shape	Choose one of the 16 stock shapes	
Source, Middle and Destination shape Width in (100th DU)	How wide is it	
Source, Middle and Destination shape Color	Set the color of the shape	

Source, Middle and				
Destination shape Descriptor				
	→ Location ↔ ∠			
Drag the descriptor to the	$\Phi \Phi \Phi$			
location map or to the Hidden				
Items list to hide.				
	Description User1 User2 User3 A Mon Activer OK			
	User3			
Backbone Color				
Jumper Color	Sets the color			
Horizontal Cable Color				
Merge and Center Text in				
Body	TB-47 TB-47			
	TB-47 TB-47 SCA 093 093 SCA 093 SC/			
	GENERIC 144 PORT PAT Normal Merged GENERIC 4 PORT PANEL			
Text Height	controls the height of all text in the visualization.			
	1			
Layout				
Max Columns	The maximum number of blocks placed before a new row is started below.			
Column Spacing	The distance between blocks			
Row Spacing	The Distance between rows			



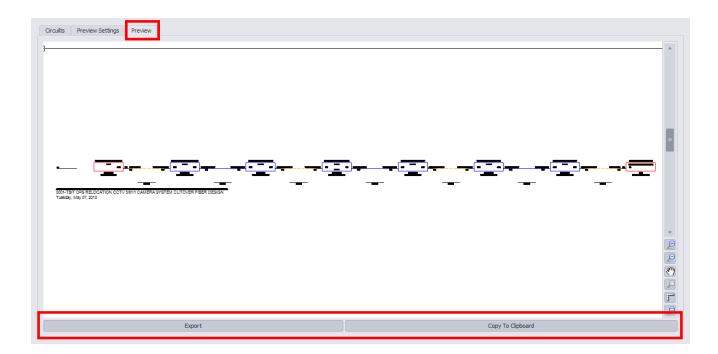
3.2.2.4 Outputting Circuits to CAD

Once a circuit has been defined you can create CAD views of single and multiple circuits. The tools to do this are contained in the **Circuits Grid** which you can access from the command line shortcut **CMSCG** or by selecting the **[CAD Preview/Circuits Grid]** on the home page.

Before accessing the **Circuits Grid**, please make sure to setup your export preferences in the settings menu. Please refer here [188] for more information on the settings menu.

You can also batch output the selected records by clicking Tools>Output Selected.

Note: All export is governed by settings in the Application Menu > Settings[Project][Export Settings] tool.

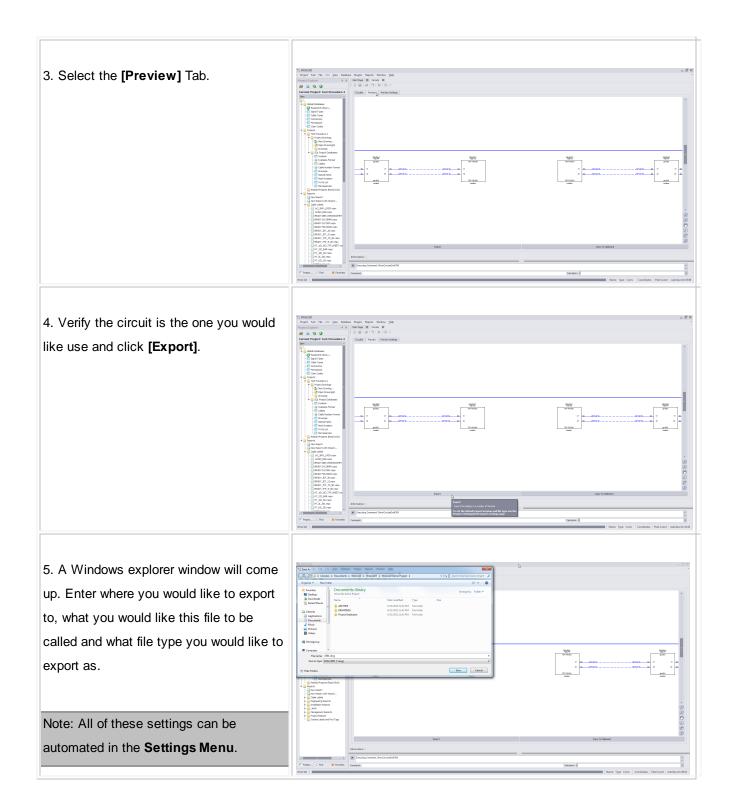


Export	Output to file based on the Export Settings found in
	Application Menu > Settings [Project][Export
	Settings]
Copy to Clipboard	Copies the preview to the clipboard so it can be pasted into another drawing.

3.2.2.5 How to Output a Circuit to CAD

This step by step will guide you on exporting a circuit.





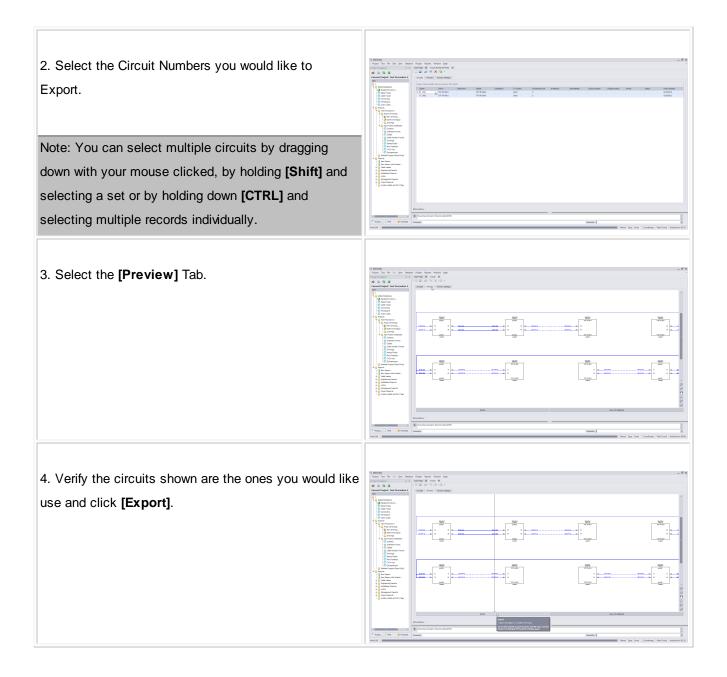
6. Click **[Save]**. Your exported file will now be created and placed in the location you have specified of the file type you specified in the **Save As Dialog filter**.

3.2.2.6 How to Output Many Circuits to CAD

This Step by step will guide you on exporting multiple circuits.

Note: this is different from the command Tools>Output All Selected Circuits

HOW TO	
1. Open the Circuit Grid by entering CMSCG in the command line prompt. The Circuit Grid Window will open.	



 Click [Save]. Your exported file will now be created and placed in the location you have specified. 	
Settings Menu.	Press (n 1 true) Press (n 1 true
Note: All of these settings can be automated in the	Concentration The Section Sec
this file to be called and what file type you would like to export as.	A training and
where you would like to export to, what you would like	Fitner Recorded Relation August Marc Binary Binary Second Relations Instrumentary Binary Binary Second Relations Instrumentary Binary Second Relations Instrumentary Instrumentary Binary Second Relations Second Relations Instrumentary Binary Second Relations Second Relations Instrumentary
5. A Windows explorer window will come up. Enter	Name and Annual

3.2.2.7 Combining Circuits

WireCAD CMS tools support the concept of combining circuits. Circuits to be combined must have the same Strand Count. The Circuit Name/Number of the Circuit that is being appended or inserted will be discarded.

📆 Combine Circu	lits			×
LabelsimpleLabelIte	1			
This Circuit	1001	A		Ŧ
	Circuit: 1001 strand Count: 2 - test			
Appends to	1000	2		•
	Circuit: 1000 St and Count: 2 - test	100 10 10 10 10 10 10 10 10 10 10 10 10	8	
		22	20	
O Insert Into	Info	22 Q 2		Ψ
		200		
	Before			Ŧ
G	O After			T
Insert Jumpers i	f Necessary			
	· · ·			
			Commit	Cancel

This Circuit	The Circuit Name/Number of the circuit that will be appended or inserted into another circuit. This circuit Name/Number will be discarded if successfully appended or inserted.	
Appends To	The Circuit Name/Number of the circuit that will be appended to.	
Inserts Into	The Circuit Name/Number of the circuit that will be inserted into	
Before	Before this SysName	
After	After this SysName	

Insert Jumpers if	It is possible to	create collections of cables in a circuit that do no	t interconnect. If	f you do not
Necessary	select this optic	on you will create collection of cables that do not in	nterconnect.	
Preview	∜ Combine Circ	uits		×
	LabelsimpleLabelIte	m1		
	This Circuit	1001 Circuit: 1001 Strand Count: 2 - test		٠
	 Appends to 	1000 Circuit: 1000 Strand Count: 2 - test		T
	O Insert Into			Ŧ
		Info		Y
		After		
	Insert Jumpers	if Necessary		<
				·
	15,10,2013			
	5		Commit	Cancel
[Commit]	Do it.			
[Cancel]	Dump out with	but any changes.		

3.2.3 Cable Types

In order to create a Backbone segment in WireCAD, you will need to create a Cable Type with the correct amount of Cores.

This will guide you through creating a new Cable Type 419.

New Cable Type	Ν	х
File	6	*
- 🛛 🗐		
Manufacturer ID	Select Manufacturer Cable Type or P/N	
Description		
Cable Char Z	Cable OD :	*
Cable Guage	Cable Rating	•
Cable Weight	Standard Length	* *
Core/Conductor	Configuration	
Shielding	▼ Is Multi Core 🔲 Core Count 1 🗍	
Conductors Per Co	re 1 🗍 Conductor Count Including Shield(s) 1 🛊	
	Default Core/Fiber Mode 🔹	
Color Code Ap	plies To:	
O Conductors	O Cores None	
Color Code	Υ.	
Information:		

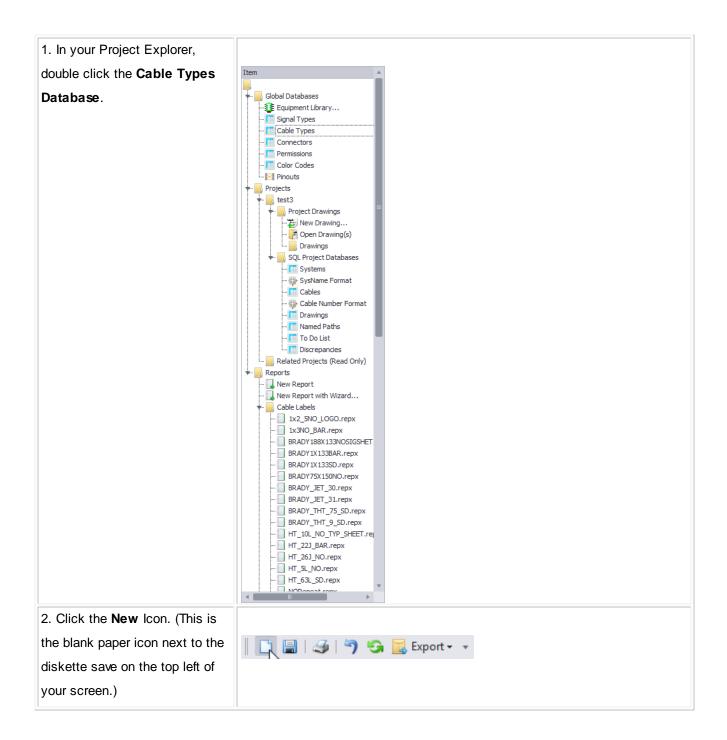
3.2.3.1 Creating a New Cable Type

Wiki Links:

Cable Management Specific Features and Functions

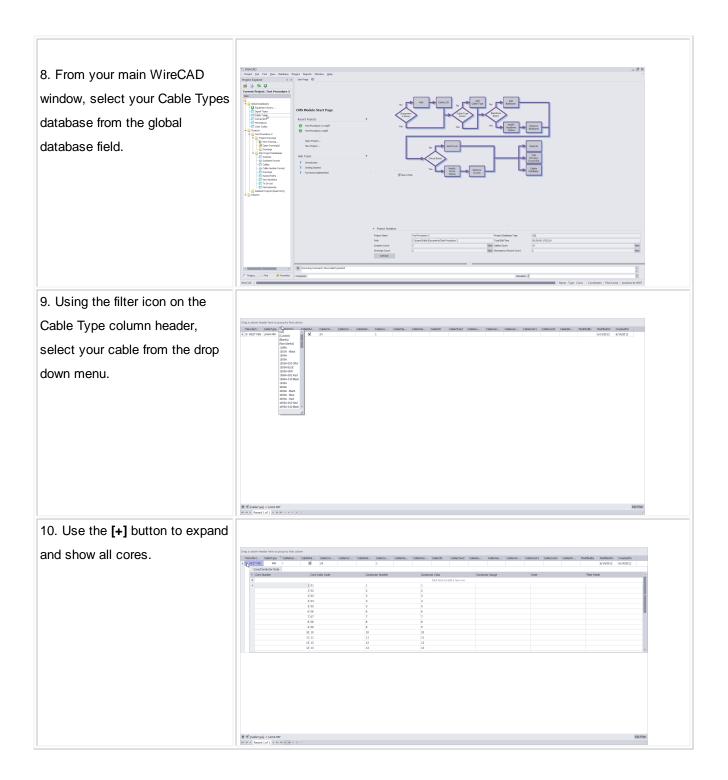
http://wirecad.com/wiki/index.php?title=Cable_Management_System_Specific_features_and_functions

HOW TO	



3. A new window will pop up	
asking for information on this	New Cable Type
-	File
cable type.	
	Manufacturer ID Select Manufacturer T Cable Type or P/N
	Description
	Cable Char Z Cable OD \$
	Cable Guage Cable Rating
	Cable Weight
	Core/Conductor Configuration
	Shielding Is Multi Core Count 1 🕆
	Conductors Per Core 1 🕴 Conductor Count Including Shield(s) 1 🛊
	Default Core/Fiber Mode 🔹 🔻
	Color Code Applies To:
	O Conductors O Cores O None
	Color Code
	Information:
4. Fill in all information about this	
cable including Manufacturer,	
cable including Manufacturer , Cable Type or P/N &	New Cable Type
cable including Manufacturer , Cable Type or P/N &	New Cable Type 🕞 🗶
cable including Manufacturer , Cable Type or P/N & Description . No other fields are	New Cable Type
cable including Manufacturer , Cable Type or P/N & Description . No other fields are required but are available to use	New Cable Type × File × Manufacturer ID WEST PENN WIRE Cable Type or P/N Description Test Cable Char Z Cable OD
cable including Manufacturer , Cable Type or P/N &	New Cable Type × File × Manufacturer ID WEST PENN WIRE Cable Type or P/N Description Test Cable Char Z Cable OD Cable Guage Cable Rating ×
cable including Manufacturer , Cable Type or P/N & Description . No other fields are required but are available to use	New Cable Type X File X Image: Second Sec
cable including Manufacturer , Cable Type or P/N & Description . No other fields are required but are available to use	New Cable Type × File × Manufacturer ID WEST PENN WIRE Cable Type or P/N Description Test Cable Char Z Cable OD Cable Guage Cable Rating ×
cable including Manufacturer , Cable Type or P/N & Description . No other fields are required but are available to use	New Cable Type File Imanufacturer ID WEST PENN WIRE Cable Type or P/N Test Description Test Cable Char Z Cable Char Z Cable Guage Cable Guage Cable Weight Cable Weight Core/Conductor Configuration Shielding Is Multi Core Core Count 1 \$
cable including Manufacturer , Cable Type or P/N & Description . No other fields are required but are available to use	New Cable Type × File × Manufacturer ID WEST PENN WIRE Cable Type or P/N Description Test Cable Char Z Cable OD Cable Guage Cable Rating Cable Weight \$ standard Length Conductor Configuration 1 \$ Shielding Is Multi Core Core Count 1 \$ Conductors Per Core 1 \$
Description . No other fields are required but are available to use	New Cable Type File Imanufacturer ID WEST PENN WIRE Cable Type or P/N Test Cable Char Z Cable Char Z Cable Char Z Cable Rating Cable Guage Cable Weight Standard Length Core/Conductor Configuration Shielding Is Multi Core Conductors Per Core 1 Default Core/Fiber Mode
cable including Manufacturer , Cable Type or P/N & Description . No other fields are required but are available to use	New Cable Type × File × Manufacturer ID WEST PENN WIRE Cable Type or P/N Description Test Cable Char Z Cable OD Cable Guage Cable Rating Cable Weight \$ standard Length Conductor Configuration 1 \$ Shielding Is Multi Core Core Count 1 \$ Conductors Per Core 1 \$
cable including Manufacturer , Cable Type or P/N & Description . No other fields are required but are available to use	New Cable Type File Imanufacturer ID WEST PENN WIRE Cable Type or P/N Test Cable Char Z Cable Char Z Cable Char Z Cable Rating Cable Guage Cable Weight Standard Length Core/Conductor Configuration Shielding Is Multi Core Conductors Per Core 1 Default Core/Fiber Mode
cable including Manufacturer , Cable Type or P/N & Description . No other fields are required but are available to use	New Cable Type File Imanufacturer ID WEST PENN WIRE Cable Type or P/N Test Description Test Cable Char Z Cable Guage Cable Guage Cable Guage Cable Weight Core/Conductor Configuration Shielding Shielding Is Multi Core Core Count It Shielding Color Code Applies To: Conductors Cores
cable including Manufacturer , Cable Type or P/N & Description . No other fields are required but are available to use	New Cable Type File Imanufacturer ID WEST PENN WIRE Cable Type or P/N Test Description Test Cable Char Z Cable Guage Cable Guage Cable Weight Core/Conductor Configuration Shielding Is Multi Core Core/Conductor SPer Core 1 Conductors Per Core 1 Color Code Applies To:
cable including Manufacturer , Cable Type or P/N & Description . No other fields are required but are available to use	New Cable Type File Imanufacturer ID WEST PENN WIRE Cable Type or P/N Test Description Test Cable Char Z Cable Guage Cable Guage Cable Guage Cable Weight Core/Conductor Configuration Shielding Shielding Is Multi Core Core Count It Shielding Color Code Applies To: Conductors Cores

5. If this cable is a multi core	
cable, you will need to check	New Cable Type
the Is Multi Core box and select	File •
how many cores are in this	Manufacturer ID WEST PENN WIRE Cable Type or P/N Test
cable.	Description Test
	Cable Char Z Cable OD Cable Guage Cable Rating
	Cable Weight \$ Standard Length \$
	Core/Conductor Configuration
	Shielding 🔹 Is Multi Core 🛛 Core Count 1 🗘
	Conductors Per Core
	Default Core/Fiber Mode
	Color Code Applies To:
	Conductors Cores None
	Color Code
	Information:
6. Select the [Default	
Core\Fiber Mode].	New Cable Type
	File T
Note: To label specific cores as	Manufacturer ID WEST PENN WIRE Cable Type or P/N 12test
SM or MM, see step 8.	Cable Char Z Cable OD +
· ·	Cable Guage Cable Store Cable Store Cable Store Cable Store Cable Store
	Cable Weight \$ Standard Length
	Core/Conductor Configuration
	Shielding 🔹 Is Multi Core 🔲 Core Count 1 🛓
	Conductors Per Core 1 💠 Conductor Count Induding Shield(s) 1 🗘
	Default Core/Fiber Mode Color Code Applies To:
	SM 2
	Conductors Cores None
	Color Code
	Information:
7. Click the [Save] icon	
(diskette).	
If you need to define SM and	
MM, please follow steps 8.	



11. Double click in the Fiber							
Mode field and enter SM or MM	Drag a column header here to group by that column header here to group by that column danufact CableType ^T CableDes + G WEST PDI LAWA MM lowe test min	cableMul CableCor CableO Bd 24	r GableRat GableCo Ga	eGta CableWel CableOD	CableCharZ CableGu CableVen CableV	en CableCost1 CableCost2 CableChi	ModifiedDy ModifiedDn CreatedOn 6/14/2012 6/14/2012
for this strand.	Core/Excitation bits	Core Calor Cade 1 01 2 02 3 03 4 04 5 03 6 06 7 07 8 09	Conductor Number 1 2 3 4 5 6 7 8	Conductor Color Click here to ad 2 3 4 5 6 7 8 8	Conductor Geoge	Pate	Plan Mode
Note: If a series of cores are the		9 09 10 20 11 11 12 12 13 13	9 90 11 12 13	9 30 11 12 13			
same Fiber Mode Type, you can							
highlight the top one, drag down,							
and press CTRL+D to							
automatically populate additional	X	×					Edit Filter
fields.							
12. Click the [Save] button							
(diskette) to save changes.							

3.2.4 Equipment

<%APPVER%> for ENTerprise has been pre-populated with devices specific to fiber operations.

If you are unable to find your specific equipment, you will need to create a new Equipment Definition.

This section will guide you through creating a new Equipment Definition, adding & deleting I/O ports and modifying display preferences.

∜‡ New Equipment		×
O New Equipment		
Who Makes It and What's it	Called	
Manufacturer*	Select a Manufacturer 🔹 🚥	
EquipmentName/Model/Part Number*		
Description*		
SysName Prefix*		
* = Required		
	Next > Cancel	

3.2.4.1 Creating a New Equipment Definition

Wiki Links:

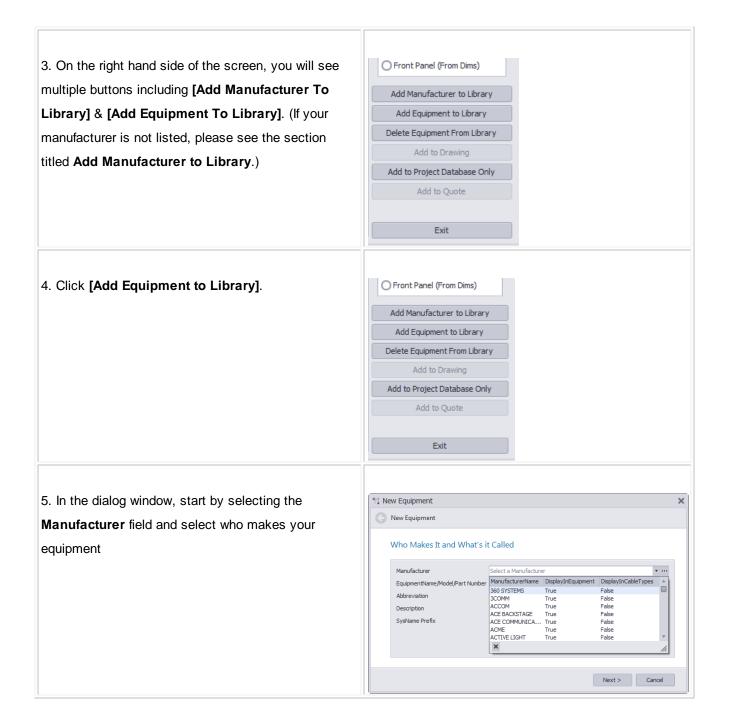
How To Access Your Equipment Library http://wirecad.com/wiki/index.php?title=Accessing_Equipment_Library

How To Add a New Manufacturer To Library http://wirecad.com/wiki/index.php?title=How_To_Add_A_New_Manufacturer_To_Library

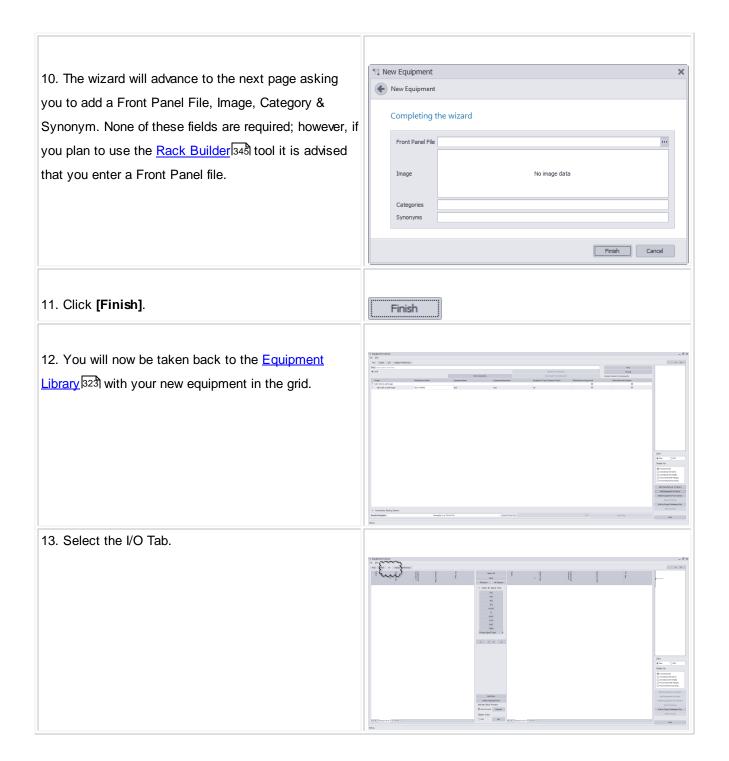
How To Create A New Equipment Definition <u>http://wirecad.com/wiki/index.php?title=HOWTO:New_Equipment_Definition</u>

How To Customize Your Equipment I/O http://wirecad.com/wiki/index.php?title=Customizing_Equipment_I/O

How To	
1. Click Advanced Tools>Equipment Library OR	
Database>Equipment Library OR Command Line shortcut LE.	Local or in the second of the
2. Use the search/find bar to first determine if your equipment is currently in the library.	A la



6. Enter in the Model/Equipment Name of your	*; New Equipment					
Equipment.	O New Equipment					
	Who Makes It and What's it Called					
	Manufacturer* Select a Manufacturer	•				
	EquipmentName/Model/Part Number* Description*					
	SysName Prefix*					
	* = Required					
	Next >	Cancel				
7. In the Description field, enter something that will	*1 New Equipment	×				
describe this type of equipment. Example: Laptop,	O New Equipment					
Desktop Computer, Router, LCD Display etc.	Who Makes It and What's it Called					
	Manufacturer* Select a Manufacturer	•				
	EquipmentName/Model/Part Number*					
	SysName Prefix*					
	* = Required					
	Next >	Cancel				
8. The SysName Prefix field is how the SysName will	*‡ New Equipment	×				
be shown after a SysName assignment. Example:	New Equipment					
Field Laptop = FLD LPT, Desktop Router = RTR, ect.	Who Makes It and What's it Called					
	Manufacturer* Select a Manufacturer	*				
	EquipmentName/Model/Part Number* Description*					
	SysName Prefix*					
	* = Required					
	Next >	Cancel				
9. Click [Next] .	Next >					

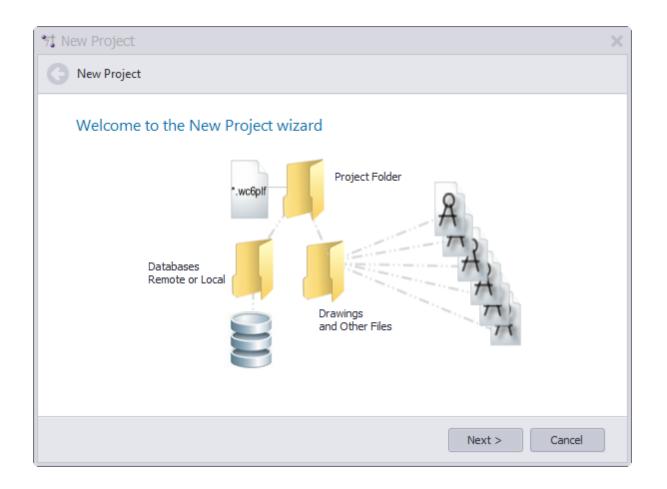


14. In the middle of the screen, Click The [Add Ports]	
button.	
	A Decision of the second
15. Enter in all port information including Name,	11 Add Ports X
Connector Type, Signal Type, Pin Style, etc. Do	Tps
this for all ports on this device.	Consider naming pathbay ports A-# and B-# for the top and bottom rows It doesn't matter which side you place a port on. You can always move it later. For bi-directional signals such as Ethernet or RS-422 consider your document flow when determining the list to which you will add these ports.
	When selecting the connector gender always consider that WireCAD needs the CABLE END of the connection, not the chassis side. Add to Which List: Add Multiples:
	Example: Add Multiple Ports Dimputs (Left Side) Port Name: X Count (Appends #): 1 \$
	O Dutputs (Right Side) Connector (Cable End): Iselect connector •••• Starting @: 1; O Both Signal Type: select signal type ••••• Leading Zeros: 00
	Input Pn Style: Normal * Finally Append Characters
	Add Ports and Close Close Apply
Note: You can add multiples of the same port type by cl	icking the Add Many checkbox and entering in how
many of this specific port you would like. WireCAD will a	
Example: with the Inputs radio button selected, enter the	
Multiples and set the Starting Number to 1 and the Cou	Int to 32. Click [Apply] and 32 records will be created in
the Inputs list. The name field will be populated with the	values PORT-01 through PORT-32.
16. When you are finished, click [Apply] to add the	Finally Ar
ports and leave this dialog open or click [Add Ports	Output Pin Style: Normal
and Close] to add the ports and close this dialog.	Add Ports and Close Close Apply

3.2.5 Projects

This section will guide you on how to create a New Project using a SQL Server Database.

You will need to have your network administrator or IT department set up a SQL Database and create user access for all WireCAD users who will have access to this Database.



3.2.5.1 Creating a New SQL Project

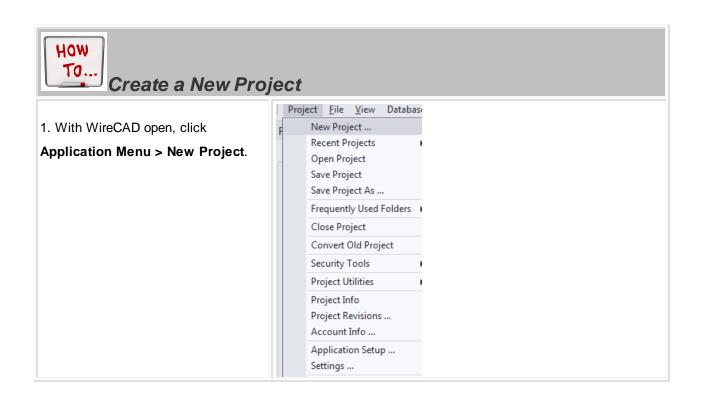
Wiki Links:

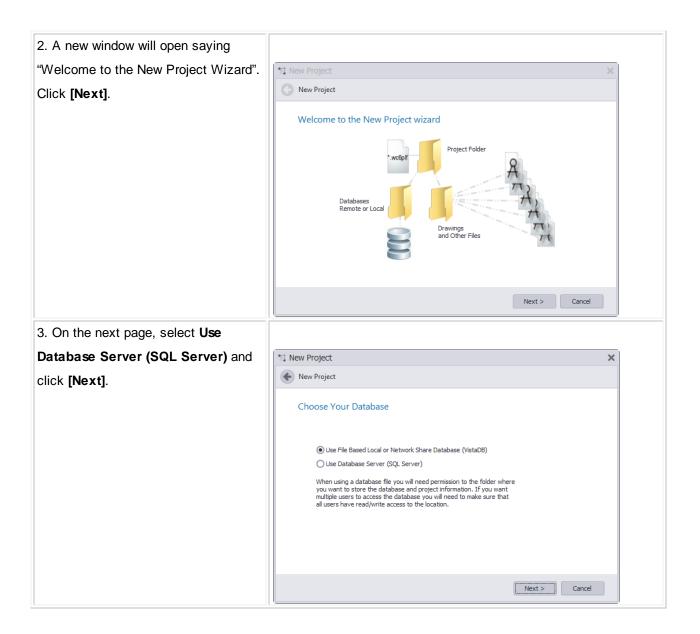
How To Create a New Project

http://wirecad.com/wiki/index.php?title=HOWTO:New_Project

How To Move A Project To A Different SQL Server

http://wirecad.com/wiki/index.php?title=HOWTO:MoveProjectServer





4. Enter a Project Name, Description			
and select a Project Files Path. This	∜ New Project		×
is where your project files will be	New Project		
saved. This is different than your	Project Name	e and Location	
Database files and will not be located	Name:	Test	
in the same directory. It should be on a	Description:	Test	
network share visible to other users of	Project Files Pat Database File Lo	th: C: {Users \Public \Pocuments occation: C: {Users \Public \Pocuments \Test \Project Databases	
the project. Click [Next].	Project Lead Per Project Path:	rson: C:\Users\Public\Documents\Test]
		Next > Cancel	
5. Enter in your SQL Server database			
,,			
information and click [Next].	71 New Project		×
•	* New Project Image: New Project		×
•	New Project	rver Information	×
information and click [Next] .	New Project Database Ser Database Host:	localhost	×
information and click [Next]. Note: Please contact your IT	New Project	localhost	×
information and click [Next] . Note: Please contact your IT department if you are unsure of any	New Project Database Ser Database Host: Database Nome Database User:	Incelhost test3 I Use Windows User Validation	×
information and click [Next] . Note: Please contact your IT department if you are unsure of any	New Project Database Ser Database Host: Database Name	Incelhost test3 I Use Windows User Validation	×
information and click [Next] . Note: Please contact your IT department if you are unsure of any	New Project Database Ser Database Host: Database Nome Database User:	test3 ✓ Use Windows User Validation	×
information and click [Next] . Note: Please contact your IT department if you are unsure of any	New Project Database Ser Database Host: Database Nome Database User:	test3 ✓ Use Windows User Validation	×
information and click [Next] . Note: Please contact your IT department if you are unsure of any	New Project Database Ser Database Host: Database Nome Database User:	test3 ✓ Use Windows User Validation	

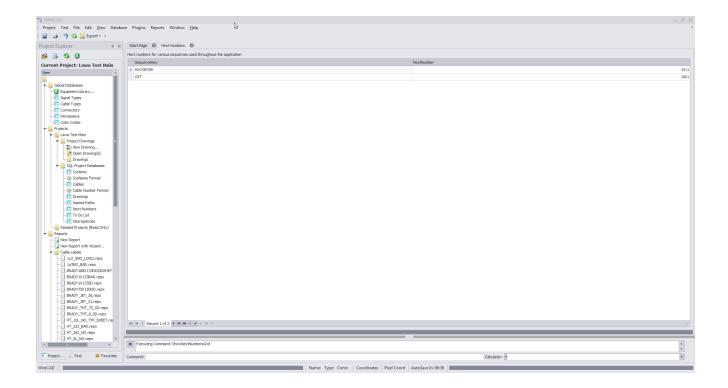
6. Verify that all information looks	
correct and click [Next].	*t New Project X Image: New Project X
	Confirm Information Confirm Your Settings Project Name: test3 Description:test3 Path: C:Users/Public/Documents DB Host: localhost DB Catalog: test3 Using Windows Security If everything looks right dick next to create the project
7. Wait for WireCAD to build your	Next > Cancel
project and then click [Finish]. You are	
now ready to start working in your new	*i New Project X Image: New Project X
SQL Project.	Starting New Project Creating Top Project Folder at: C:\Users\Public\Documents\test3 Created Drawing Folder at: C:\Users\Public\Documents\test3\Project Databases Created Project Databases Folder at: C:\Users\Public\Documents\test3\Project Databases Created Project Lotator File Created the Project Locator File Created thew Databases Created New Databases Creates New Databases Creates New Databases Creates New Databa
	Finich

3.2.6 Next Numbers Grid

The Next Numbers Grid will show you the next available Cable number based on your Cable Number Format. To access the **Next Numbers Tool**, type NN in the command line prompt.

This grid will show you both **Backbone Cable Numbers** as well as **Standard Cable Numbers**. As you progress through your project, these numbers will change.

To edit these numbers (such as in the event of deleted Backbones) simply click in the Next Number box and fill in the desired number. Be sure that you are not entering a number that is already in use.



Note: Yours will look different as the Next Numbers grid will automatically create entries for each new sequence used by the application.

3.3 Settings and Options

The following settings are specific to WireCAD ENTerprise.

To access the settings menu, click **Application Menu > Settings**. Then select one of the three default sets of settings **Application**, **User** or **Project** by clicking on the down arrow.

Note: Third party plugins may register their own settings categories and panels. Shown are the stock settings.

*† Settings		×
Application ▼	Application Settings Some of the basic settings and behaviors ✓ Check for Program Updates Automatically Upon Startup	
Global Database Loc Support Paths Organization	Community Library Auto-Contribution Mode AutoContributeMyWork	
User <	Release License Lease Upon Application Shutdown Release Lease is useful if you are floating your license among multiple machines. It is, however, not a good idea if you are not going to be web connected when you restart WireCAD	
	Default Project Database Host(SQL only) localhost □ Use SQL Server Project databases by default ☑ Users (mere mortals) can select Project Database Mode	
	Save Close Restore Default	s

Topic Sub Sections

<u>User Settings</u>189 <u>Project Settings</u>191

3.3.1 User Settings

These are the additional user settings that pertain specifically to the CMS module.

Application Menu > Settings[User][CMS User]

*∄ Settings		×
Application	CMS User Settings Some settings specific to you Use Stock WireCAD Startup Page Default New Circuit Strand Count 2 Warn of Connector String Mismatch	
Project ▼ Project Settings CMS Basic Export Settings	Save Close Resto	re Defaults

Use Stock WireCAD Startup Page	CMS User Settings Some settings specific to you
Note: Doing this will remove all buttons and	Use Stock WireCAD Startup Page
functionality of the startup page requiring you to us	
the command line shortcuts.	page to the default WireCAD page.
Default New Circuit Strand Count	
	Default New Circuit Strand Count 2
	When creating a new circuit, a default strand count for
	jumpers is created. This will change that strand count to
	a different value.
	Warn of Connector String Mismatch
Warn Of Connector String Mismatch	Having this box checked will allow a warning message to
	display anytime WireCAD detects that 2 ports being
	connected have a different connector type.

3.3.2 **Project Settings**

These are the additional project settings that pertain specifically to the CMS module.

Note: You will need to have an open project in order to access these settings.

Note: These settings are project specific and will need to be created for each new project.

Application Menu > Settings[User][CMS User]

⁺† Setti							
		Cable Management	System Basi	cs			
User	•	Some basic settings for the CMS module					
6	Basic	Manage Status Items					
-	Projects List	Default New Backbone Status	PROPOSED			* + -	
Þ	Drawing	Default New Circuit Status	PROPOSED			- + -	
ß	Drawing (advanced)						
	Command Line Short						
63	CMS User	Backbone Number Format	B{0}		Circuit Number Format	{0}	7
			J{0}.{1}.{2}	۲	Horizontal Cable Number Format		1
Proje	ct 🔻			Ŧ	Default Jumper P/N		,
÷	Basic			_	Default H Cable P/N	GENERIC	,
	Advanced						
	Locations						
	CMS Basic						
632	Export Settings						
					Save Close	Restore Defaul	lts //,

Default New Backbone Status	Unfuel New Bashow Status FROMOTED THE ADDRESS Status FROMOTED THE ADDRESS Status FROMOTED THE ADDRESS STATUS ADDRESS AD
	"status" on that backbone such as "In Use", "Proposed"
	ETC. Using the [+] button, you can create new status
	items. Selecting a status will cause that to become the
	default for all backbones in this project.

Default New Circuit Status	Just like above, when creating a Circuit, you have the ability to mark a status on that circuit. Again, using the [+] button, you can create a new status.
Backbone Number Format	The variable {0} contains the next number in the Next Numbers grid for Backbones. Define the string format of the next Backbone number.
Circuit Number Format	The variable {0} contains the next number in the Next Numbers grid for Circuits. Define the string format of the next Circuit number.
Jumper Number Format	 The variable {0} contains the Circuit base number. The variable {1} contains the Strand Number of the circuit for this jumper The variable {2} contains the Ordinal Number of the circuit for this jumper. Define the string format of the next Jumper number.

3.3.3 Output Settings

Application Menu > Settings[Project][Export Settings]

°7t Settings	×	
User ▼ Sasic Basic Projects List Projects List Drawing Project Command Line Short CMS User Project Project CMS User Project CMS User CMS User CMS User CMS User	Ouput Settings Determines the default preview output behavior Image: Use Template Image: Always Ask For Filename and Path Circuit File Name Format Circuit File Name Format Backbone File Name Format BB(0) File Format dwg Path C: Yawa temp project to delete Drawings Image: Oreate Folders For Each IT System Automatically Overwrite Files of Same Name Append Date Stamp to File Name Circuit Post Process Script Image: Save Close Restore Defaults	
Use Template	Path to to a template drawing that the output will be exported into. Your template drawings can contain any page borders or layouts and settings that you wish.	
Always Ask for Filename and Path	You are involved in the filename selection and path	
Circuit File Name Format	Sets the file name format for Circuit output. {0} = Circuit Name	
Backbone File Name Format	Sets the file name format for Backbone output. {0} = Backbone Number	
File Format	Presets the output format.	
Path	Where do we output.	

Create Folders for Each IT System	Create a new folder for each IT System and output the preview to that folder.
Automatically Overwrite Files of Same Name Append Date Stamp to	Self-explanatory
File Name	
Circuit Post Process Script Backbone Post Process	Path to a c# file which will be run post export but pre write-to-disk. See the Post Process Scripts 194 topic for more information.
Script	

3.3.4 Post Process Scripting

Post Process Scripting of the output of the Visualizers in WireCAD allow you to customize the final appearance of the created document.

What follows are two example scripts, one for the Circuit output and the other for the Backbone output. The process is the same for both. Only the method signature is changed.

Circuits Export Script Example

```
using System;
using System.Data;
using System.Text;
using System.Windows.Forms;
using System.Diagnostics;
using System.Reflection;
using System.IO;
using WireCAD;
using WireCAD.Interfaces;
using VectorDraw.Professional.vdObjects;
using VectorDraw.Professional.vdFigures;
using VectorDraw.Professional.vdPrimaries;
using VectorDraw.Professional.vdCollections;
using WireCAD.ProjectFile.DAL;
using VectorDraw.Geometry;
/// <summary>
/// Fill your titleblock with your data
```

```
/// </summary>
//Your class name
public class TitleBlockFiller
{
       //the method signature is key so this next line must appear as shown
      public static void Run(Workspace ws, Circuits c, vdDocument doc)
             string drawingName = Path.GetFileName(doc.FileName);
              //change this next line to be your titleblock name
              string BlockNameToUpdate = "ansi";
              //Get the layout by name that we want to update
              vdLayout layOut = doc.LayOuts.FindName("ANSI_B");
              //loop through the entities in the layout
              foreach (vdFigure figure in layOut.Entities)
              {
                     //if we find a viewport let zoom it to the extents of our model
                     if(figure is vdViewport)
                     {
                           vdViewport vp = figure as vdViewport;
                           vp.ZoomExtents();
                           vp.Update();
                     }
                     //now look for our titleblock
                     if (figure is vdInsert)
                     {
                            //cast our base figure into an insert object so we can access its
properties
                           vdInsert insert = (vdInsert) figure;
                            //now we will test to see if the insert name is one that
                            //we know to be a titleblock
                            //Modify this to meet your needs
                           if (insert.Block.Name.ToLower().Contains(BlockNameToUpdate))
                            {
                                  //need to fix it.
                                  //this next bit makes it insert get the latest version from
the blocks table
                                  insert.Update();
                                  insert.Invalidate();
                                   //we got one so let's set the attributes
                                   //we will use the safeSetAttribute function so that if the
attribute doesn't exist it won't
                                   //fail
                                  //Modify this to meet your needs
                                  //Enter your Attribute names and the values you want to fill
them with
                                  ws.Utilities.SafeSetAttributeValue(insert, "SHEET", layOut.
Name);
                                  ws.Utilities.SafeSetAttributeValue(insert, "Drawing_Name",
Path.GetFileNameWithoutExtension(drawingName));
                                  ws.Utilities.SafeSetAttributeValue(insert, "DWG_Number", c.
```

```
CktNO);
                                  ws.Utilities.SafeSetAttributeValue(insert, "COMPANY", "Slate
Gravel Co");
                                  ws.Utilities.SafeSetAttributeValue(insert, "ADDRESS",
"Number 1 Quary Way");
                                  ws.Utilities.SafeSetAttributeValue(insert, "ADDRESS2",
"Bedrock - The World");
                                  ws.Utilities.SafeSetAttributeValue(insert, "DATE", DateTime.
Now.ToShortDateString());
                                  ws.Utilities.SafeSetAttributeValue(insert, "Scale", "NTS");
                                   insert.Update();
                                   insert.Invalidate();
                                  doc.Redraw(true);
                           }
                     }
              }
              //Now create a text item that displays our circuit number in the upper righthand
corner
                                  vdText(doc);
              vdText t = new
              t.TextString = string.Format("CKT - {0}\n{1}",c.CktNO, c.CktDescription);
              t.HorJustify = VectorDraw.Professional.Constants.VdConstHorJust.VdTextHorRight;
              Box bb = layOut.Entities.GetBoundingBox(true,true);
              t.Height = .25d;
              t.InsertionPoint = new gPoint(bb.Right-3,bb.Top-2);
             layOut.Entities.AddItem(t);
             doc.ActiveLayOut = layOut;
      }
}
```

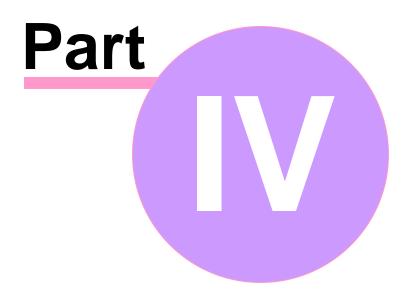
Backbones Export Script Example

The only difference in the two examples is the method signature. Use the code above replacing:

```
public static void Run(Workspace ws, Circuits c, vdDocument doc)
```

With:

public static void Run(Workspace ws, CMSSettings settings, vdDocument doc)



4 Reference

4.1 Ribbon Tabs and Dialogs

This section provides a reference to the individual controls in the dialogs accessed in the Ribbon Toolbar.

Only dialogs that need explaining are documented

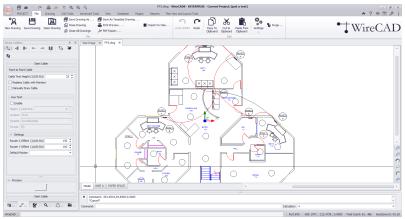
Please note that although this reference is quite complete, only dialogs that really need explaining are documented. For example, we assume that you can figure out what menu entries like Save and Save As do for yourself.

This also applies to simple dialogs whose functions are explained elsewhere. Some of these dialogs are listed, but only with references to the relevant topics in the Procedures sections.

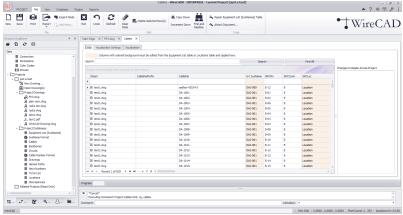
4.1.1 The Workspace

The WireCAD workspace has four main components: The Application Menu at the top of the screen, the Ribbon Toolbar where you access all program functions, the Tool Panels collection for navigating and managing your projects and the Main Window where you edit the content of your projects. The Main Window can display four distinct environments:

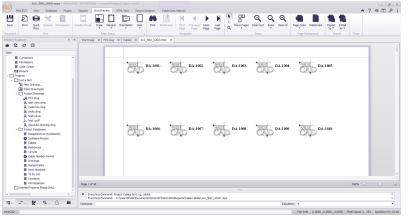
1. The Drawing environment



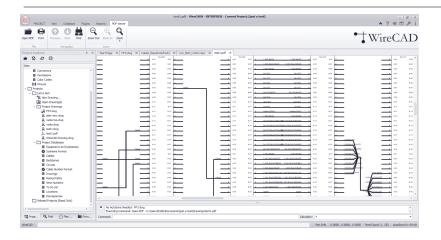
2. The Data environment



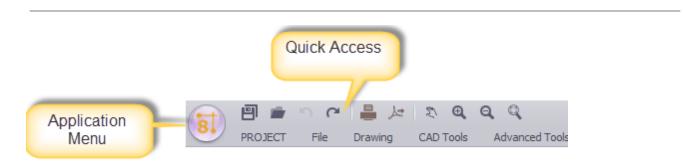
3. The Reporting environment



4. The PDF viewer environment



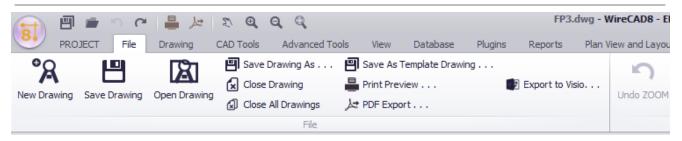
The Application Menu and Quick Access Toolbar



The Application Button in the top left corner of the Help & Manual window is one of the most important controls. It provides access to the functions normally accessed in the File menu in menu-based programs. This is where you open existing projects, create new projects, save your projects under other names and so on.

The Quick Access Toolbar next to the Application Button is a place for frequently-used tools.

The Ribbon Toolbar



The Ribbon Toolbar is the control center where you access virtually all of WireCAD's functions. If you use Microsoft Office 2007 you will already be familiar with the Ribbon interface. It is context-sensitive, automatically displaying functions relevant to what you are currently doing.

Tip: The Ribbon can also be operated almost entirely via the keyboard. To display the accelerator keys just press and release the ALT key once – the keys will be displayed in icons superimposed on the Ribbon.

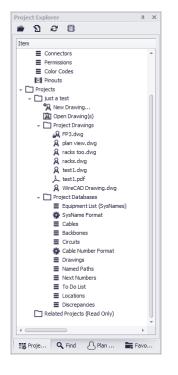
PROJECT View Data Tool Panels - 81 81 ٥ - + - + đ ✓ Project Explorer Switch Windows T Draw Cables Drawing Properties ✓ Find Set Tool Panel Plan View Projects Visibility ✓ Favorites just a test.wo ✓ Command Line 😑 sql shootout r Equipment Library. Signal Types Cable Types Θ WireCAD Edit WireCAD Edit Connectors My First Proje Permissions Color Codes IDXTEST_AZU Open Project Pinouts New Project. just a test Just a test New Drawing Dat Open Drawing Dat Open Drawing Dat Open Drawing Helpful Links 0 Main Switchb | Project Drawings ⇒ P3.dwg A plan view.dwg A racks too.dwg A racks.dwg A tast1.obg A test1.obg WireCAD Drawing. Project Databases ≡ Equipment List (Sy; \$ Sys1Ames ≡ Backbones ≡ Crauits 1 Intro Using the Der WireCAD Wiki 0 Tutorials Eorums Current Tool Panel Circuits Cable Number Drawings Named Paths Next Number × No AutoSa No AutoSa 🐺 Proje... 🔍 Find 🔠 Plan ... Favo. Cor reCAD

Tool Panels

Tool Panels are organizations of controls. There are different Tool Panels depending on the current environment.

The Project Explorer Tool Panel

The Project Explorer is like Windows Explorer for WireCAD projects. When you load or create a project all its contents are displayed here, including both the Global Equipment tables and the Project Databases and files.



Note: This tool panel is active at all times.

The Draw Cables Tool Panel

The Draw Cables Tool Panel contains all the tools for drawing cables. You can draw cables with different relationships. You can also set the drawing behaviour of cables.

Draw Cables 후 1 4 화 ~ - ~ 11 년 ¥	×
Q	
Start Cable	
Point to Point Cable	
Cable Text Height (1/100 DU) 25 🜲	
Replace Cable with Pointers	
Manually Draw Cable	
Aux Text	
Enable	
Height (1/100 DU) 0 +	
Location Over 👻	
Variable CircuitNumber v	
Format {0}	
^ Settings	
Router X Offset (1/100 DU) 150 🗘	
Router Y Offset (1/100 DU) 100 🗘	
Default Pointer 🔹	
Preview:	
Start Cable	
🗰 🖅 🖉 . 🔍 🚉 .	

Note: This tool panel is only active when the current environment contains a drawing.

The Drawing Properties Tool Panel

The Drawing Properties Tool Panel allows editing of granular drawing settings. If no entity selection exists in the drawing the Drawing Properties window will display the general document properties.

Grid Space Y 1.0000 Grid Space Y 1.0000 GridStyle Dot Limits 0.0000,0.000,0.000 OrthoMode X, Vy, Z PolarTrackAmple PolarTrackAmple Of 45.000° PolarTrackAux _ SnapAngle 0°
GridStyle Dot Limits 0.0000,0.0000,0.000 OrthoMode
Limits 0.0000,0.000 OrthoMode
OrthoMode Image: Control of the sector of the
OrthoModeAxis X, Y, Z PolarTrack
PolarTrack PolarTrackAngle \$ odof 45.0000 PolarTrackLock SnapAngle 0
PolarTrackAngle (© 45.0000° PolarTrackLock SnapAngle 0°
PolarTrackLock SnapAngle 0°
SnapAngle 0°
SnapBase 0.0000,0.0000,0.000
SnapMode
SnapSpaceX 1.0000
SnapSpaceY 1.0000
yboard
OrbitActionKey AltLeft
OsnapDialogKey Ctrl+None
PanMouseButton Middle
SelectionPreviewDov Down
SelectionPreviewUpl Up
UrlActionKey Ctrl+None
isc

Note: This tool panel is only active when the current environment contains a drawing.

The Find and Replace Tool Panel

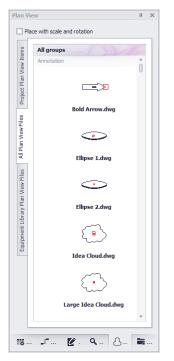
The Find and Replace Tool Panel allows you to search the current drawing, all drawings and the project databases for text and replace that text with your entered values.

Find	4 X
ind:	× Find
Search Where	
Active Drawing	
All Project Drawings	
Project Databases	
 Search Options 	
Show File	
Show Item Type	
∧ Replace	
Replace With	
esults. Double-Click to Show	
Select All Clear Selection	Results Count = 0
₩	Q

Note: This tool panel is active at all times.

The Plan View Tool Panel

C... The Plan View Tool Panel allows you to place plan view symbols in your drawing.



Note: This tool panel is only active when the current environment contains a drawing.

* *

-

The Favorites Tool Panel

The Favorites Tool Panel holds blocks that you have saved as favorites (right-click entity in drawing>Add to Favorites).

Favorites	# ×
X Scale Factor 1 🛟 Y Scale Factor 1 🗘	2
Explode after insert	
Favorites - Double-Click to Add to Drawing	
Item	
Global Favorites 1.dvg my router.dwg PESA-COUGAR \$V0.dwg VTR.dvg TVR.dvg TVrLebe Favorites Project Favorites	
🗰 🖬 🖍 🕐 🖓 📖 🖉 🗤	

Note: This tool panel is only active when the current environment contains a drawing.

The Command Line Interface

The Command Line Interface allows you to see the command history, receive prompts from the application and execute commands directly. For a full list of command line command you can view/edit the Application Menu>Settings[User][Commandline Shortcuts] grid.

Calculator:

```
Executing Command: Open PDF - C:\Users\Public\Documents\uset a test\Drawings\test1.pdf
Car't find dependent file: C:\Users\Tarab\Documents\Marketing\Art\hires\WireCAD logo.jpg
Command:
```

4.1.2 Ribbon Tabs

4.1.2.1 Application Menu



The Application Menu contains the following static menu functions:		
Top Menu	Sub Menu	Description
New Project		Displays the <u>New Project Wizard.</u> व्यअ
Open Project		Display a file open dialog. Browse to and select a *.wc6plf file to open the WireCAD Project.
Save Project As		Displays the <u>Save Project As</u> विद्रे dialog. Use this to create a copy of the current project in a different location.
Close Project		Closes the current project.
Frequently Used Folders	Project Folder	Opens the root folder of the current project in a window explorer window.
	Global Data Folder	Opens the global data folder. C:\Users\Public\WireCAD\WireCADx
	User App Data Folder	Opens C:\Users\ <your name="" user="">\AppData\Local\WireCAD\WireCADx</your>
Security Tools	View Permissions	Shows the permissions grid.
	Manage Security	Shows the <u>Users Groups and Permissions dialog</u> 242.
Check In/Out	Pack Up / Check Out	Packup/check 246 out utility. Collects all info for the project and makes is portable.
	Unpack Project	Unpack a project. 248
	-	

The Application Menu contains the following static menu functions:

	Check In	Check in a Checked Out project 250.
	Project	
Project Info		Project specific info 410 like the current revision and related projects list.
Account Info		Who is the project for 410.
Application		Displays the <u>Application Setup Wizard</u> व्टि?। This is show once on startup but
Setup		you can review and change settings here.
Settings		Displays the main <u>Settings 261</u> dialog.
Exit		Exits the program.

4.1.2.2 Project



The Project Ribbon Tab is a static menu structure. It does not change with environment changes.

The Project Ribbon Tab contains the following menu items:

Menu Item	Sub Menu	Description
New Project		Display the <u>New Project Wizard</u> वि33े
Open Project		Display a file open dialog. Browse to and select a *.wc6plf file to open the WireCAD Project.
Close Project		Close the current project
Recent Projects		Most recently used projects list. This is selection is based on the Project List setting in the Application Menu>Settings[Project List]

Other

While WireCAD does not currently merge any other tools with the Project menu, authors of WireCAD plugins have the ability to merge their own tools onto this ribbon tab. Consult their documentation for information.

4.1.2.3 File

The File Ribbon Tab is a dynamic menu that changes its structure with the current environment.

Drawing Environment

🚽 🗒 🖆 ท ศ 블 🌽	2 Q Q Q		FP3.dw	g* - WireCAD8 - ENTERI	PRISE - Current Pr	oject: [just a	a test]		
PROJECT File Drawing C	CAD Tools Advanced Tools	View Database	Plugins Reports	Plan View and Layout Tools	5				
New Drawing Save Drawing Open Drawing	Close Drawing	 Save As Template Draw Print Preview PDF Export 	ing DE Export to Visio	Undo osnapMode			Paste from Clipboard	Settings	Purge
	File					Edit			

Again, we will not explain the obvious ones.

Menu Item	Sub Menu	Description
New Drawing		Shows the <u>New Drawing Wizard</u> Part
Save Drawing		
Open Drawing		Browse to a drawing.
Save Drawing As		
Close Drawing		
Close All Drawings		
Save As Template Drawing		Any drawing may be used as a template from which other drawings may be created. Simply Save As Template Drawing to make your drawing usable in the New Drawing Wizard as a starter drawing.
Print Preview	7	Display the Print Preview 293 dialog.

PDF Export	Display the <u>PDF Export</u> विकी dialog.
Export to	Create smart Visio drawings 297 where the WireCAD cable become live active
Visio	Visio connections.
Undo	
Redo	
Сір Сору	
Clip Cut	
Clip Paste	
Settings	Display the main Settings 261 dialog. Same as clicking Application
	Menu>Settings.
Purge	Purge 319 unused entities from the drawing.

Data Environment

8	PROJECT	f File	View	Database P	lugins R	leports			Cables	WireCAD8 - ENTI	RPRISE - (Current Project: [just a test]
New	Save	Print	Export	S Expert Mode	Exit	S Undo	C Refresh	Clear	Delete Selected Row(s)	Copy Down	Find and	 Repair Equipment List (SysNames) Table Attach Document
			File	-				Data	Edit		Replace	Tools

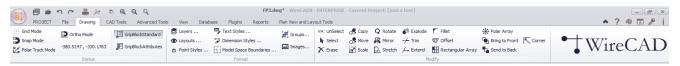
Menu Item	Sub Menu	Description
New		A new item in the collection.
Save		
Print		
Export	XML	
	HTML	
	TEXT	
	XLS	
Exit		

Undo	
Redo	
Refresh	
Clear Data [Del]	
Delete Selected Rows	
Copy Down [Ctrl]+[D]	
Increment Down [Ctrl]+[l]	
Find and Replace	
Tool1	See Grid Specific Functions for a listing of the tools available to each data grid.
Tool2	
Tool3	
Tool4	

Other

While WireCAD does not currently merge any other tools with the File menu, authors of WireCAD plugins have the ability to merge their own tools onto this ribbon tab. Consult their documentation for information.

4.1.2.4 Drawing



Menu Item	Sub Menu	Description
Grid Mode		Toggle the visible grid [F7]. Note: the visible grid is rendered only for the
		Drawing Limits which can be set in the Drawing Properties Tool Panel.
Snap Mode		Toggle the invisible snap grid [F9]. The invisible snap grid is based on the
		SnapX and SnapY settings in the Drawing Properties Tool Panel.
Polar Track		Toggle PT mode. When enabled and in a function requesting a point from the
Mode		drawing the selectable polar angle will be restricted to the Polar Track Angle
		in the Drawing Properties Tool Panel.
Ortho Mode		Toggle restrict movement to horizontal/vertical only.
Coordinate		Displays the cursor position in current coordinates. Coordinates are
		expressed in drawing units (DU). Drawing units do not express particular units
		(meters, inches etc).
		In this part user have to make some assumptions in order to define that the
		coordinates of the drawing mean particular units(meters, inches etc).
		For example:
		For a mechanical drawing we can make the assumption for example: where
		one drawing unit defines one millimeter(1 D.U=1mm)
		For a architectural/technical drawing we can make the assumption for
		example: where one drawing unit defines one meter(1 D.U=1m) or one foot.
		This can be very helpful in designing, dimensioning, retrieving information from
		the drawing(distances, area calculations)
GripBlockStd		Show only one grip per insert.
GripBlockAtts		Show one grip per attribute in the selected insert.
Layers		Shows the <u>Layers</u> হি99ী dialog.

Layouts	Shows the Layouts 302 dialog.
Point Styles	Shows the <u>Point Styles</u> अल्बी dialog.
Text Styles	Shows the <u>Text Styles</u> 306 dialog.
Dim Styles	Shows the <u>Dimension Styles</u> 308 dialog.
Model Space Bounds	Shows the <u>Model Space Boundaries</u> 310 dialog.
Groups	Shows the <u>Groups</u> 312 dialog.
Images	Shows the Images 314 dialog.
UnSelect	Clears the current selection. Same as pressing {esc}
Select	Start a selection
Erase	Erase the current selection. If no selection then you will first be prompted to select entities.
Сору	Copy the current selection. This is a base-point or offset copy and is preferred over [Ctrl][C] then [Ctrl][V] if copying in the same drawing as it is lighter weight. If no selection then you will first be prompted to select entities.
Move	Move the current selection. If no selection then you will first be prompted to select entities.
Scale	Scale the current selection. If no selection then you will first be prompted to select entities.
Rotate	Erase the current selection. If no selection then you will first be prompted to select entities.
Mirror	Mirror the current selection. If no selection then you will first be prompted to select entities.
Stretch	Stretch polylines in the current selection. If no selection then you will first be prompted to select entities.

Explode	Explode the current selection. This function will reduce complex object to their
	primitive constituent parts. For example; exploding an insert unlinks all of the
	entities back one level. Exploding a polyline reduces the polyline to a
	collection of line segements. If no selection then you will first be prompted to
	select entities.
	Entities that can been exploded:
	 vdDimension explode to vdLines, vdText(s), and vdInserts (the arrows).
	• vdlnsert explode to the entities that is consist of. (If there are Inserts inside
	Blocks then you may need to apply more than 1 explode to get the base entities).
	 vdPolyHatch explode to vdPolyline(s).
	 vdPolyline explode to vdLine(s) and/or vdArc(s).
	 vdRect explode to vdPolyline.
	 vdText explode to vdPolylines(only texts with fontfile SHX).TTF(true type font) texts are not exploded
Talua	
Trim	Trim objects at a cutting edge defined by other objects the current selection.
	First select the objects that define the cutting edges at which you want to trim
	an object and then the object.
	Objects that can be trimmed include arcs, circles, elliptical arcs, lines.
	Notice that the trim command do not function if the objects do not intersect.
	At the example below there are some lines that were trimmed.
Extend	Extend lines, arcs, polylines until they intersect with some other object which
	is used as limit of the extension.
	Firstly you have to select the objects that consist the limits of the extension.
	Then you have to choose a point at an object that you want to extend. If the
	object you want to extend does not intersect with above objects then nothing
	will happen.

Fillet	Connect two lines, two arcs, or one arc with a line(these two objects must
	have at least one common point either visible, or in their extension), with an
	arc with a specific radius. The value of the radius has some restrictions
	depending the position of the objects. If radius=0 then simply the objects are
	either extended until they intersect each other in one point(if there was not an
	intersection point) either trimmed(if an intersection point is visible).
Offset	Create a new object in parallel direction and in specified distance from the
	original object which is used as pattern for the new object.
	When you execute offset command, you are prompted to select an object.
	Then you have to specify the offset distance which is the distance that the
	new object will be drawn from the original object. Then you have to set the
	side that the object will be draw because there are two sides.
R Array	Creates multiple copies of objects in a rectangular pattern. Shows the
	Rectangular Array 318 dialog.
	With the rectangular array you can create an array defined by a number of
	rows and columns of copies of the selected object.
	First you have to select the objects. Then you have to define number of rows
	and number of columns of the rectangle, the distance between rows and the
	distance between columns. If no selection then you will first be prompted to select entities.
P Array	Same as R Array but copies radially around a center point.
	Select the objects to copy. Then set the center point and next define the
	numbers of the copy objects that will be created and the fill angle. Lastly
	choose if the object will be rotated or not.
BTF	Bring to front. This changes the Z order of the objects in the render engine
	bringing the current selection to the front. If no selection then you will first be
	prompted to select entities.
STB	Send the current selection to the back of the Z order. If no selection then you
	will first be prompted to select entities.
Corner	Causes lines that can intersect to intersect. Start the command then select
	the first line then the second line.

4.1.2.5 CAD Tools



Menu Item	Sub Menu	Description
Line		A single line segment. Lines can be one segment or a series of connected segments, but each
		segment is a separate line object.
Polyline		2D/3D line composed of line and arc (bulges) segments. Polyline is specified
		by an array of Vertexes (points). When the Polyline has thickness then the extrusion vector of the polyline defines the direction of the thickness.
		Polylines can be Open or Closed, can be SPLine and be filled with a color or a hatch.
Circle		A full circle is defined by its CenterPoint and its Radius.
		Circle is drawn in the plane that is defined by CenterPoint and ExtrusionVector.
Point		An object which occupies a single point in the coordinate system. The display
		of the point is inherited from the document Point Style property and can be
		set by clicking Drawing>Point Styles
Rectangle		A rectangular object defined by an insertion point, height and width.
Text	_	Text inherits its style from the document Text Styles collection which can be
	Text	edited by clicking Drawing>Text Styles Text entities do not have font properties directly but inherit the font and font properties from the associated Text Style.
	Multiline Text	
	(MTEXT)	

Image Frame	Used to render images in the document. Images may either be linked or
-	imbedded in the drawing file. The image frame defines the location and size of
	the displayed image. To imbed an image you must edit the document Images
	collection Drawing>Images .
	collection Drawing>images.
Construction	
Ray	
2 or 3 Pt Arc	A circular arc defined by the center point, the radius, the start angle and the
	end angle. An arc is always drawn anti-clockwise from the StartAngle to the
	EndAngle.
	The StartPoint and EndPoint properties of an arc are calculated through the
	StartAngle, EndAngle and Radius properties.
	The ExtrusionVector is always vertical to the arc. Arc is drawn in the plane
	that is defined by CenterPoint and ExtrusionVector
Ellipse	Draw an Ellipse.
-	
Cloud	Draw a cloud
Insert Block	Opens the Inserts [320] dialog. You can then insert an existing block into the
Into Drawing	drawing or browse to another file to insert in the drawing.
Write Block to	Writes the selected insert out to its own file prompting you for the file save as
File	name and location as well as the new basepoint for the drawing.
Create	A tag/value data pair that can be included in a block to display editable text.
Attribute	
Definition	
Make a Block	Select entities and group them into a unit called a block. The block resides in
	the document Blocks table. To display a block we Insert an instance of the
	block into the drawing at some point, scale, and rotation.

External	Other drawings may be displayed within the drawing space and maintained as
Reference	separate files. These are called Externally Referenced (XREFS) drawings. The
Manager	externally referenced drawing cannot be edited in the current drawing, only
	viewed, positioned, scaled and rotated.
	This function opens the External Reference Manager [321] dialog.
Edit Attributes	Allows editing of the attributes of the selected insert of a block
Blocks	Visual gallery of the document Blocks collection. Clicking on an item starts
Gallery	the Insert process.
Horizontal	Dimensioning is the process of adding measurement annotation to a drawing.
Dimension	There are many ways to dimension objects and many ways to format
Vertical	dimensions. You can create dimensions for a wide variety of object shapes in
Dimension	many different orientations. You can create dimension styles to format
Aligned	dimensions quickly and ensure that dimensions in your drawing conform to
Dimension	industry or project standards.
	Dimensions show the measurements of objects, the distances or angles
Radius	between objects, or the distance of a feature from an origin you specify. There
Dimension	are three basic types of dimensioning: linear, radial, and angular. Dimensions
Diameter	can be horizontal, vertical, aligned, rotated, angular. A linear dimension
Dimension	measuring the distance between two points which is displayed parallel to the
Angle	points being measured. In aligned dimensions, the dimension line is parallel
Dimension	to the extension line origins. The extension line origins are specified using the DefPoint1 and DefPoint2 properties.

4.1.2.6 Advanced Tools

	i 💼 🗠	r 🚔 🎠 🦻 @ @ @		test1.dwg - WireCAD8	- ENTERPRISE	- Current Project: [just a tes	it]			- 2
PR	OJECT File	e Drawing CAD Tools Advanced Tools	View Database Plugi	ins Reports Plan View and Lay	out Tools					🔺 ? 🖷 🖪 🖉
₽	1	Verbose SysName Assignment		Drawing SysName Error Check (beta)	١ <u>#</u>	Verbose Cable Assignment	De-Assign Cable Number	Drawing Error Check (beta)	Auto Block	WireCADify Block
Equipment Library	Rack Builder	Assign SysName Reset Selected Systems	Assign Terminal(s)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Assign Cable Number	L Draw Cable	Recover Cables	Slurp Cables	Ratsnest	Add Connection Point
Equipmen	Rack Tools		Equipment Functions				Cable Functions		AutoScheme	WireCADify Tools

Menu Item	Sub Menu	Description
Equipment Library		Opens the <u>Equipment Library</u> ସେଥି.
Rack Builder		Opens the <u>Rack Builder</u> 345 tool.
Assign SysName		Assigns a <u>SysName</u> [347] to all selected inserts that are assignable.
Verbose SysName Assignment		When checked displays the <u>SysName Assignment</u> [347] dialog. Otherwise the assignment proceeds with all default information.
De-Assign SysName		De-Assign will remove the SysName data from the insert and mark the record in the database deleted/available.
Reset Selected SysName Reset All SysNames		Reset will remove the SysName data from the insert and do nothing with the database. The Reset functions are useful if you need to reuse a drawing and reassign new numbers.
Slurp SysNames		Gets all of the SysName data from the drawing and adds it to the database if not found in the database.
Assign Terminal(s)		Starts the terminal assignment dialog for the current selection of assignable terminals
Drawing SysName Error Check		Shows the <u>Drawing SysName Error Check</u> ाउठी dialog.

Assign Cable	Assigns the cable 349 a number based on several factors:	
Number	The Project Settings[Starting Number]	
	Project Cable Number Format tool	
	Next Number sequence	
	The process of assignment will update drawing with the number as well as	
	place an entry in the project Cables table	
Verbose	When checked displays the <u>Cable Assignment</u> 349 dialog. Otherwise the	
Cable	assignment proceeds with all default information.	
Assignment		
Add Multicore	Displays the <u>Add Multi-core Cable</u> ما dialog. There you select the cable type	
Cable	number base, etc. and build an entry in the Cables table for every core in the	
	associated cable type marking the records available.	
Draw Cable	Starts the Draw Cable 477 function.	
De-Assign De-Assign will remove the Cable data from the drawing and mark the		
Cable Number	the database deleted/available.	
Reset All	Reset All Cable Numbers in Drawing will remove the Cable data from the	
	drawing and do nothing to the database. The Reset functions are useful if you	
	need to reuse a drawing and reassign new numbers.	
Recover	The Recover Cables function does the following:	
Cables	 Gets all cable data from the drawing 	
	 Compares it to the Cables table of the project 	
	 Updates the Cable Number information in the drawing for matches. A match 	
	is found when the source and destination SysNames, Locations, and	
	Portnames match.	
Drawing Error	Shows the Error Check 353 dialog.	
Check		
Tidy Cable	Forces the selected cable to be orthogonal (horizontal or vertical only).	
Slurp Cables	Gets all of the Cable data from the drawing and adds it to the Cables table if	
	not found in the database.	

Auto Block	Shows the <u>Auto Block</u> [354] dialog. With Auto Block you can place functional blocks in the drawing on a grid simply by selecting which SysName to place.
Ratsnest	Shows the <u>Ratsnest</u> (357) dialog. Used in conjunction with Auto Block to wire the placed blocks. Pulls cable data from the Cables table, searches the drawings for matches and when found places a cable.
WireCADify Block	Shows the <u>WireCADify Block</u> (359) dialog. Add the WireCAD attribute set to your CAD blocks. You do not need to use this command on any WireCAD generated block.
Add Connection Point	Shows the Add Connection Point Beft dialog. Add WireCAD Connection Points you blocks that you have WireCADified. You do not need to use this command on any WireCAD generated block.

4.1.2.7 View

The View tab is dynamic. It merges tools from the current environment.

Static View

PROJECT View Database Plugins R	Start Page - WireCAD8 - ENTERPRISE - Current Project: [just a test]	- ₹× • ? ⊕ ⊑ ♪ i
□° Tool Panels ▼ 81 81 0 ↓ ↑ Show Start Page 88 88 88 ↓	Switch Windows • Window	• WireCAD

Menu Item	Sub Menu	Description	
Tool Panels	Project Explorer	Toggle the visibility of the Project Explorer बिग्ठी Tool Panel	
	Draw Cables	Toggle the visibility of the Draw Cables 477 Tool Panel	

	Drawing Properties	Toggle the visibility of the <u>Drawing Properties</u> 479 Tool Panel
	Find and Replace Replace	
	Plan View Tools	Toggle the visibility of the Plan View Tools Tool Panel
	Favorites	Toggle the visibility of the Favorites Tool 487 Panel
	Command Line	Toggle the visibility of the <u>Command Line</u> 489 Tool Panel
Show Start Page		Toggle the visibility of the Start Page
Skin Gallery		Select the look and feel of the application
Switch Windows	{Current Window Set}	Toggle the active window

Drawing Environment View

	🗐 💼 ା ମ 📇 🎉 ା ୬ ଭ୍ ପ୍ ସ୍ 🔍 testi.	.dwg - WireCAD8 - ENTERPRISE - Current Project: [just a test]	G	_ B X
8		Plan View and Layout Tools	▲ ? ⊕	📼 🖉 i
2 Pan	Coom All (B) New Viewport from Polygon	None ⊙ CEN NEAR © QUAD ① Disable ■■ Measure Distance %_END Jb INS > INTER > TANG Area MID T PERP NODE APPINT B> All id	□ Tool Panels ▼ 1 1 1 1 ↑ Show Start Page 1 1 1 ↓ Switch Windows ▼	
	View	Object Snaps Info	Skin Window	

Menu Item	Sub Menu	Description
Pan		Reposition of the view. This can be better done with the mouse wheel of your mouse. Depress the mousewheel to click the button underneath it to activate the PAN mode. NOTE: this relies on your mouse driver middle button set to default.
Zoom In Zoom Out		Zoom command allows the user to increase or decrease the apparent size of
		objects, so the user can control the part of the drawing that is included in the
Zoom Extents	5	screen.

Zoom	Zoom command is a transparent command.
Window	Transparent commands are commands that can be invoked when another
Zoom All	command is active.
	Remarks
Zoom	There are several ways to execute the zoom command:
Previous	"E"(Extends) Zooms to display the drawing extents
	"P"(Previous) Zooms to display the previous view
	"W"(Window) Zooms to display an area specified by two opposite corners of
	a rectangular window. User must specify these two corners.
	"A"(All) zooms to the drawing limits or current extents, whichever is greater.
Zoom Scale	Show the Zoom Scale dialog. Zooms the display at a specified scale factor.
	For example, entering 2 doubles the apparent display size of any objects
	from what it would be if you were zoomed to the limits of the drawing.
	Entering 0.5 causes each object to be displayed at half its current size on the screen.
Regenerate	Re render the entire drawing.
New Viewport	Viewports are areas that display different views of your model. As you work,
New Viewport	you can split the drawing area into one or more adjacent rectangular views
from Polygon	known as model viewports. In large or complex drawings, displaying different
Activate	views reduces the time needed to zoom or pan in a single view. Also, errors
Viewport	you might miss in one view may be apparent into others.
	ViewPorts are treated as rectangle drawing objects which display views and
	can be moved or resized.
	They can be created only a layout and not in Model space.
	You can also attach viewports to closed polygons (polylines, circles, ellipses, rectangles).
None	Turn off all object snaps. An object snap(Osnap) mode specifies a snap point
	at an exact location on an object. Osnap specifies running object snap
	modes, which remain active until you turn them off.
End	End Point snap

Mid	Mid Point snap
Center	Center snap
Ins	Insertion Point snap
Perp	Perpendicular To snap
Near	Nearest snap. This one overrides all others.
Inter	Intersection snap
Node	Point snap
Quad	Quadrant snap
Tang	Tangential To snap
AppInt	Apparent Intersection snap
Disable	Toggle currently selected OSnap state
All	Enable/Disable all.
Measure	Measure the distance in Drawing Units(DU) between two points selected from
Distance	the drawing.
Area	Measure the area of a selected object.
ID	Get the drawing ID of the selected object.

Other

While WireCAD does not currently merge any other tools with the View menu, authors of WireCAD plugins have the ability to merge their own tools onto this ribbon tab. Consult their documentation for information.

4.1.2.8 Database

No environments currently merge with this tab



Menu Item	Sub Menu	Description		
Equipment Library		Show the global <u>Equipment Library</u> [323]		
Manufacturer s		Show the global <u>Manufacturers</u> यागे Grid		
Equipment		Show the global Equipment 413 Grid		
Connectors		Show the global Connectors 417 Grid		
Cable Types		Show the global <u>Cable Types</u> [419] Grid		
Signal Types		Show the global <u>Signal Types 415</u> Grid. This grid defines many default behaviours like cable color and default cable type.		
Pinouts		Show the global Pinouts 422 tool (PRO) and above.		
Equipment List		Show the project Equipment List 442. This is the collection of all SysNamed equipment across all drawings in the project.		
Backbones		Show the project Backbones grid. (ENT ONLY). This is the collection of all Backbones in the project.		
Circuits		Show the project Circuits grid. (ENT ONLY). This is the collection of all Circuits in the project.		
Cables		Show the project <u>Cables</u> 446 grid. This is the collection of all Cables in the project.		
Locations		Show the project Locations grid. This is the collection of all Locations in the project.		

Named Paths	Show the project Named Paths grid. This is the collection of all Named Paths in the project.
Todo List	Show the project Todo List
Import Project Data Wiz	Show the project Import Data Wizard . This tool allows you to import cable and equipment data from other sources.
Add Multicore Cable	Displays the <u>Add Multi-core Cable</u> [352] dialog. There you select the cable type number base, etc. and build an entry in the Cables table for every core in the associated cable type marking the records available.
Pack Project Database	This file base database utility will compress and reorganize your project database.
Pack Global Database	This file base database utility will compress and reorganize your global database.
Synchronize Global Database	Show the global database <u>Synchronizer 394</u> tool. This tool allows you to import/export/merge two global databases of either SQL,VISTA, or SQL Azure.

4.1.2.9 Plugins

This tab is dynamic. Depending on product level and installed third party or WireCAD plugins these menu items are subject to change.

PROJECT View Database	Plugins Reports PDF Viewer		test1.pdf - WireCAD8 - ENTERPRISE - Current Project: [just a test]
Plugin Script Constant Formation Manager Editor/Runner Manager Plugins	Batch Brother PatchVerx Al Block	ct Bulk Block DWG Diff	• WireCAD
Menu Item	Sub Menu	Descri	ption
Plugin		Shows	the <u>Plugin Manager</u> 402 dialog where you can control which plugins are
Manager		loaded.	

Script Editor	Shows the Script Editor/Runner 404 dialog. This tool allows you to create
Runner	custom scripts to perform tasks. You can view/edit existing scripts that show
	how to do a bunch of things by browsing to the script folder in c:
	\users\public\wirecad\wirecadx\scripts. Therein you will find many example
	scripts. Scripts are written in C# and the editor provides intellisense hints.
Translation	Shows the Translation Manager. While not technically a plugin we have
Manager	always shown it here so why break with tradition. All text (strings) in
	WireCAD are held in a dictionary. The dictionary is editable through the
	Translation Manager. All strings default to english if the machines current
	culture cannot find a translation in the dictionary. You have the ability to
	change the displayed messages, column headings, and all other strings.
Batch Plot	Show the Batch Plot tool. This tool allows you to scan the drawings for
	layouts and select the layouts to print/plot in a batch. You can save/load your
	settings for the next time around.
Brother P-	Show the Brother P-Touch! plugin to print directly to P-Touch! printer with
Touch!	USB ports that support direct print. (NOTE: not all P-Touch! printers with USB
	ports support direct print).
PatchVerx	If you have installed PatchVerx on your machine this icon will be present so
	you can run the worlds best patchbay designation strip tool inside of
	WireCAD and pull data directly from your Cables table and place in on your
	patchbay label.
Extract All	Extracts all blocks from the active drawing and writes them out as individual
	Extracts all blocks from the active drawing and writes them out as individual
Blocks	dwg files to the selected folder.
Bulk Block	If you want to use someone elses CAD blocks you will need to fix them so
Fixer	they work with WireCAD. This is the tool.
DWG Diff	Drawing Differencing tool. Compare two similar drawings and create three
	views A not B, B not A, and Common to Both. Compares geometry and
	drawing collections like layers, linetypes, etc.

4.1.2.10 Reports

Items on this tab are static and always display.

PROJECT View Database	Plugins Reports PDF Viewer	test1.pdf - WireCAD8 - ENTERPRI	ISE - Current Project: [just a test]		- @ × ▲ ? ⊕ ⊡ ፆ i
New with Wizard Generate Bill of Materials Scan Project For Discrepancies	BRADY1X1335D	BRADY75X150NO	BRADY_JET_30	BRADY_JET_31	* * *
		Reports			A

Menu Item	Sub Menu	Description
New with Wizard		Create a new report using the New Report Wizard. We recommend that you find a report in the existing Reports Gallery that is close and save that as your new name then edit your changes there. You will save a bunch of time.
Generate Bill of Materials		Shows the <u>BOM generator</u> [472] which counts equipment, cable, and connectors in the project. NOTE be sure to run this tool before you run any of the BOM reports or they will be empty.
Scan Project for Discrepancies		Scan for common problems. Shows the <u>Discrepancy Scanner</u> for dialog. When it finishes you can see the results in the Project Discrepancy list from the Project Explorer.
Reports Gallery		Lists all reports in the %REPORTS% support path and its subdirectories. Clicking a gallery item will load the report into a report form for preview/design/ export.

4.1.2.11 Plan View and Layout Tools



Menu Item	Sub Menu	Description
Take Offs		Show the <u>Take Offs</u> बिढ्ये tool. This tool assists in counting items in the drawing.

Add Boundaries from Text	Add Location Boundaries 453 using a text entity to derive the location name. Once you select a text entity the Boundaries form is displayed allowing you to set the remainder of the properties.
Draw Backbone	Draw a polyline representing the backbone in the plan view space. Then assign a number, cable type, source and destination ports and add that to the database.
Draw Cable	Drawing a polyline representing a cable from a location boundary to another location boundary or from placed equipment to placed equipment. Cable information is then created in the Cables table.
Populate Cables	Automatically places arched cables from location to location as defined in the Cables table.
Draw Prewire Cables	Draw a polyline representing prewire cables and add the data to the Cables table marking the IO as PREWIRE. Later, you can assign cables to those PREWIRE entries.
Populate Equipment	Automatically place SysNamed equipment in the drawing in the Location Boundaries if found.
Place Equipment	Place unnamed plan view equipment in the drawing. Preferably after Location Boundaries have been defined.

4.1.2.12 Print Preview

Visible only when the active environment is a report.



Related Topics

Print Preview Reports Form 459

4.1.2.13 HTML View

Visible only when the active environment is a report.



Related Topics

HTML Preview Reports Form 461

4.1.2.14 Report Designer

Visible only when the active environment is a report.



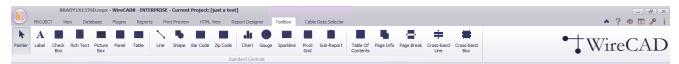
Related Topics

Report Design Form 462

A discussion on report design can be found here 3.

4.1.2.15 Toolbox

Visible only when the Report Designer Tab is active.



Related Topics

Report Design Toolbox Form 465

4.1.2.16 Cable Data Selector

Visible only when the active environment is a report.



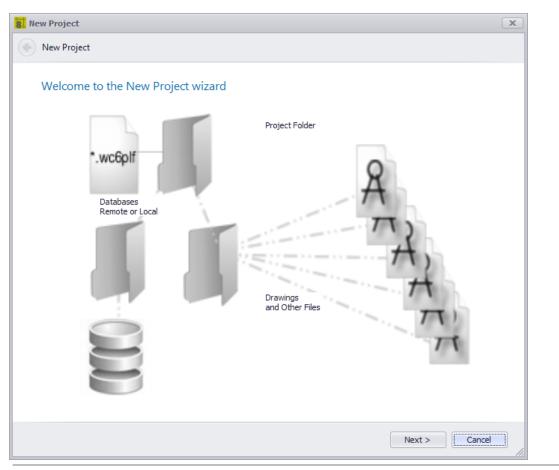
Related Topics

Cable Data Selector Form 470

4.1.3 Dialogs

4.1.3.1 Application Menu Dialogs

4.1.3.1.1 New Project Wizard



Application Menu > New Project... Commandline: np

Explanation

WireCAD Projects are a loosely coupled collection of files, folders and databases. The New Project Wizard will guide you through the steps of creating a new Project with several different options for different database types.

- <u>Choose Database Page Options</u>
 235
- <u>Name, Description, Location Page Options</u>
 236
- Database Host Page Options 238
 - Project Settings Basic

•

Project Settings - Advanced

- Project Settings Locations
- Finalization 238

٠

Related Topics <u>Create a new Project</u> [38] <u>Create a new SQL Project</u> [183]

Dialog Options

Item	Description
Navigate Forward	Next >
Navigate Backward	

8 New Project	x
📀 New Project	
Choose Your Database	
 Use File Based Local or Network Share Database (VistaDB) Use Database Server (SQL Server) 	
Use SQL Azure (doud storage)	
When using a database file you will need permission to the folder where you want to store the database and project information. If you want multiple users to access the database you will need to make sure that all users have read/write access to the location.	
Next > C	ancel

Related Topics

Choose your Database Type 117

Choose Database Page Options

Item	Description
Use File Based Local or Network Share Database (VISTADB)	File based databases.
Use Database Server (SQL Server)	You will need the host name and log in info to proceed.
Use SQL Azure (cloud storage)	You will need a Microsoft Azure account for this option. Don't have one? Contact us. We can help.

8 New Project		x
New Project		
Project Name and	Location	
Name:		
Description:		_
Project Files Path:	C: \Users\Public\Documents	
Database File Location:		
Project Lead Person:		
Project Path:		
	Next > Ca	ancel

Name, describe and locate the project.

NOTE: SQL, and SQL Azure do not like project names that start with a number.

Related Topics

Default Project Location 267

Name, Description, Location Page Options

ltem

Description

Name	50 Characters max. Must not have any operating system illegal characters. We also recommend not using the ['] apostrophe.
Description	Required
Project Files Path	Pulled from the Settings, you can change it here.
Project Lead Person	Who is in charge here.

8. New Project		x
New Project		
Database Server	Information	
Database Host:	······································	
Database Name:	Enter your SQL Azure database name	
	Use Windows User Validation	
Database User:	testUsername	
Database Password:	******	
	Test C	Connection
	Next	> Cancel

How do we log in to the SQL Server. There is a subtle distinction to be made between SQL And SQL Azure:

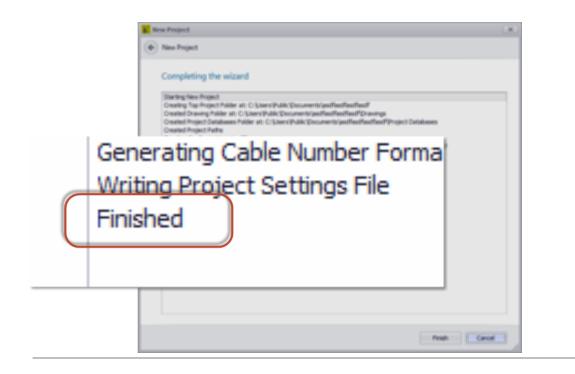
- SQL Server the database name will be the Project Name.
- SQL Azure the database name will be the name you gave your SQL Azure database. We will create a schema on that database with the project name as the schema name.

Related Topics

Choose your Database Type 117

Database Host Page Options

Item	Description
Host Name	The host name and instance of your SQL Server
Database Name	The database name. See the explanation above.
Use Windows Security	Not valid on SQL Azure.
User Name and Password	
Test	Can we connect?



Finalization

Clicking Finish starts the project creation process. Make sure that at the end the log tells you that it finished. If not the project was not properly created and you may experience errors later.

4.1.3.1.2 Project Save As

Save Project As
Save the Project asdfasdfasdf as:
Save the Current Project as:
You are using a file based database. WireCAD will copy the structure / data of the database and all files in the project folders. Create as New Server Database (Catalog) Create as File Based (local) Database
Next > Cancel

Application Menu > Save Project As ...

Commandline: save project as

Explanation

This tool allows you to save a project as a new name in a new location. SQL projects may be saved as new SQL databases or file based databases. A File Based database may only be saved as a file based database.

Related Topics

Dialog Options

Item	Description
Navigate Forward	Next >

Navigate Backward	•
Create a New Server Database	SQL Project Only.
Create as File Based (local) Database	
Save Project As	x
Save the Project asdfa	dfasdfasdf as:
Select Path	
Save As: as	fasdfasdf
Save Project Path: C:	Jsers\Public\Documents
0	Create New Empty Database
	Copy All Database Information
This function creates a Based on your selectior or create a new empty	copy of the project with the new name in the new path. , you can either copy all database data with the new name, database.
	Next > Cancel

Select the location and whether we copy the data from the database.

Related Topics

Dialog Options

Item	Description		
Save As	Follow file naming conventions.		
Project Path			
Create New Empty			
Database			
Copy All Data			

4.1.3.1.3 Manage Security

-	missions		_		
New User		Search A.D.	N	lew Group	
User Name		+	G	iroup Name	+
Group		•	D	escription	
UserName	Group			GroupName	Description
7			۴		
• cbh	Users		•	Administrators	The Great and Powerful OZ
chris_000	Administrators			Users	Mere Mortals

Application Menu > Security Tools > Manage Security ...

Commandline: security

Explanation

Administrators can manage users, groups and permissions. If WireCAD Security is enabled (see related topics). The person that enabled the Security option is the Administrator (the Great and Powerful Oz). All other users will be added automatically to the Users (mere mortals) group. Oz may:

- Change the group to which the user belongs.
- Create new groups.
- Modified group permissions.
- Create other Ozes.

So to be clear. Users belong to Groups. Groups have Permissions.

NOTE: No action is required to add a user. They simply need to open WireCAD. If their user profile does not yet exist in the WireCAD Security database it will be add to the Users group.

NOTE: Oz can proactively add users by searching the Active Directory and adding the user to the group of his choosing.

Related Topics

Application Setting - WireCAD Security 26मे Application Setup Wizard 25क्षे

Users and Groups Tab Options

ltem	Description			
New User	Create a new user and assign to a group			
New Group	Create a new Group and associate Permission Group, switch to the Permissions tab and set and drawings.	-		
Search Active Directory	Select Users or Groups	×		
	Select this object type: Users, Groups, or Built-in security principals From this location: CBH-LAPTOP-2013 Enter the object names to select (examples): Advanced OK The Standard AD Search Box	Object Types Locations Check Names Cancel		
User Grid	Assign the User to a Group			
Groups Grid	Describe the group			

Jse	ers and Groups Permissio	ons				
Dr	rag a column header here to	o group by that column				
	Name	AllowEdit	AllowDelete	AllowAddNew	GroupName	
ę						*
Þ	ProjectInfo	\checkmark	\checkmark	\checkmark	Administrators	
	NamedPaths	\checkmark	\checkmark	\checkmark	Administrators	
	ProjectSettings	\checkmark	\checkmark	\checkmark	Administrators	
	ProjectRevisions	\checkmark	\checkmark	\checkmark	Administrators	
	Drawings	\checkmark	\checkmark	\checkmark	Administrators	
	DefaultDisplaySettings	\checkmark	\checkmark	\checkmark	Administrators	
	Circuits	\checkmark	\checkmark	\checkmark	Administrators	
	DrawingRevisions	\checkmark	\checkmark	\checkmark	Administrators	
	DiscrepancyReport	\checkmark	\checkmark	\checkmark	Administrators	
	RelatedProjects	\checkmark	\checkmark	\checkmark	Administrators	
	WorkOrderDetail	\checkmark	\checkmark	\checkmark	Administrators	
V					A desininte to a	Ŧ

Each data collection in WireCAD has Edit, Delete, and Create permissions. This grid enumerates each collection for each group.

Related Topics

Grid Basics 79

Permissions Tab Options

Item	Description
Collection Name	Obvious.
AllowEdit	
AllowDelete	
AllowAddNew	

Reference	245
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GroupName	You may find it handy to filter by group name then set the permissions for the group.
Select All	
Clear Selection	

4.1.3.1.4 Packup / Checkout

8 Checka	out Project		x
Pac	kup/CheckOut		
Set	ttings		
	Check Out Project		
	Check Out Project		
	Expected Return Date:	Ψ.	
	Final Output		ĩ
	Compress Output	Include Archived Drawings in Zipped Output	
	FileName and Path:		
		Next > Cancel	

Application Menu > Check In/Out > Pack up /Check Out ... Commandline: packup

Explanation

A WireCAD project is a loosely coupled group of files, databases and settings. The global database is maintain separately from the project database, and drawings may have linked images. In order to move the project to another machine we will need to gather all of the resources used to create the project into a central location (the project folder).

The Packup / Checkout Tool performs the following functions:

- Copy a file based version of the Global Database into the Project\Project Databases folder and sync it will the SQL Server version if necessary.
- Copy all linked images to the drawings directories.
- If check-out the flag the project as read only.
- If compress the zip all the project folder items into a single zipped file with the project_name.zip

NOTE: This process can take some time on large projects.

Related Topics

Moving Projects 108

Dialog Options

Item	Description
Check Out Project	Flag the Project Read Only. This is useful if the project is going out into the field for commissioning. The version that stays in the office should not be edited.
Expected Return Date	Let the people in the office know when you think you will have the project checked in.
Compress Output	Zip it.

4.1.3.1.5 Unpack Project

8. Unpack Project	x
📀 UnPack/Check-In	
Settings	
Path to Project to UnPack/Check in	
Open Project Options Open project after UnPack	
	Next > Cancel

Application Menu > Check In/Out > Un Pack ...

Commandline: unpack

Explanation

The complementary function to the Pack Up is the Un Pack. This function performs the following:

- Unzip the compressed file (if necessary).
- Sync the local Global Database with the one found in the incoming Project Databases folder.
- Open the project for use.

NOTE: This process can take some time on large projects.

Prerequisites

A project that has been Packed Up. Using the Pack Up / Check Out tool.

No project can be open or the tool will not run.

Related Topics

Pack Up / Check Out 246

Reference	249

Moving Projects 108

Dialog Options

Item	Description
Project Path	Browse to the zipped file or the .wc6plf file
Open project after unpack	

4.1.3.1.6 Check in Project

B Unpack Project	x
UnPack/Check-In	
Settings	
Path to Project to UnPack/Check in	
Open Project Options Open project after UnPack	
Next > Can	cel

Application Menu > Check In/Out > Check In...

Commandline: packup

Explanation

The complementary function to the Check Out is Check In. This function performs the following:

- Unzip the compressed file (if necessary).
- Sync the local Global Database with the one found in the incoming Project Databases folder.
- Syncs the Project Database of the incoming project with the location database.
- Overwrite all drawings with the incoming ones.
- Remove Read Only flag.

NOTE: This process can take some time on large projects.

Prerequisites

A project that has been Checked Out. Using the Pack Up / Check Out tool.

The Checked Out local project must be open before this tool will run.

The project names of the local and incoming projects must match or the tool will fail.

Reference	251
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Related Topics

<u>Pack Up / Check Out</u>ହ4ଣ<u>ି</u> Moving Projects ^{ମତଶ}ି

Dialog Options

Item	Description
Project Path	Browse to the zipped file or the .wc6plf file
Open project after unpack	

4.1.3.1.7 Application Setup Wizard

Application Setup Wizard		
Application Setup		
Welcome to WireCAD		
	Welcome to WireCAD. Let's start by setting up the application to work in your environment and with some basic user specific preferences. To accept all defaults simply click [Cancel]. You can come back any time and modify thes settings.	e
Show this on startup	Next > Cance	1

Application Menu > Application Setup Wizard... Commandline: showappsettings

Explanation

This wizard runs once at the start of WireCAD. You can always run it again to change the settings, but most of the settings in the wizard are contained in the Settings dialog.

- Global Database Location Page Options 253
- Database Path Page Options 254
- Database Host Info Page Options 255
- <u>Create Tables and Add Data Page Options</u> 256
- <u>WireCAD Community Server Contribution Mode Page Options</u>
- Use WireCAD Security Setting Page Options 258
- Found Previous WireCAD Version 259

Dialog Options

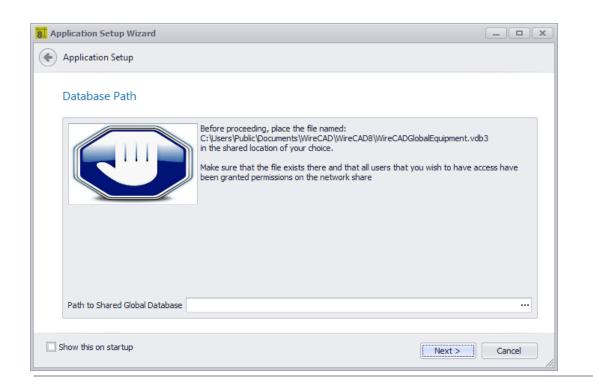
Item	Description
Navigate Forward	Next >
Navigate Backward	
Show This Again	Show this dialog again.

8 Application Setup Wizard
Application Setup
Global Database Location
The WireCAD Global Database contains information that we only want to define once. Things like manufacturers, equipment, cable types and connectors. Sometimes it is desireable to share this information with collegues.
Let's determine where your global databases are going to reside. Select [Local Machine] if you are working entirely local (default single user mode) Select [Remote Network Share] if you wish to share global information within a dosed network (dosed network multi-user) NOT RECOMMENDED Select [SQL Server] if you would like to attach to global data on a SQL Server (wan-lan multi-user) use this setting if you are connecting to a SQLAzure database or your own SQL Server instance.
Location
Local Machine
Remote Network Share - NOT RECOMMENDED
O SQL Server
Show this on startup Next > Cancel

Global Database Location Page Options

Item	Description
Local Machine	The default location is c:
	\users\public\WireCAD\WireCADx\WireCADGlobalEquipment.vdb3. You may
	rename the file in order to better organize your global data by client. See this topic
	on the <u>Global Database Location</u> 266.

Remote Network Storage	This is not recommended but is possible. Why do we do this? Well we hate to	
	limit you. Here are the ramifications of using file based storage over a network:	
	The file is not network fault tolerant like SQL Server.	
	Data can become locked and in some cases corrupt.	
	• You may find yourself having to Pack (compact and repair) the database if you get locked out of it.	
SQL Server	This is the best option for shared storage, but you lose portability.	



Database Path Page Options

Show if the first selection is Remote Network Storage Enter the Path to the WireCADGlobalEquipment.vdb3

🚶 Арр	lication Setup Wizard	I	_ _ _ X
•	Application Setup		
١	Where is Your Dat	tabase	
	Enter the database ser	ver host name and instanc	ice.
	Oreate stand-alone	localhost	Use existing database. Create global db using schema name
	Host		
	Global Database Name	WireCADGlobalEquipment	nt
	Schema Name	WireCADGlobalData	
	🗹 Use Windows Secur	ity Database Logi	gin
		User Name	testUsername
		Password	*****
			Test Connection
			rest connection
🗌 Sł	now this on startup		Next > Cancel

Show only if the initial selection is SQL Server.

Database Host Info Page Options

Item	Description
Create stand-alone database	
Use existing database. Create global db using schema name.	
Host	
Global Database Name	
Schema Name	
Use Windows Security	
User Name	
Password	

Test	
8. Application Setup Wizard	
Application Setup	
Create Tables and Add Data	
Add default global data	Create empty database
🗹 Add manufacturer data	
🗹 Add equipment data	
Add cable types	
🗹 Add connector data	
🗹 Add signal types	
This can take up to 15 mins depending on connection speeds. E	3e patient.
	Create Database and Add Data
Show this on startup	Next > Cancel

Shown only if the SQL Server Option is selected.

Create Tables and Add Data Page Options

Item	Description	
Add default global data	Create the database on the host and add the selected default data.	
Create empty database	Create the database on the host with no data.	
Which data to add		
Create Database and Add Data	Do It!	

8. App	lication Setup Wizard	_ 🗆 🗙
•	Application Setup	
,	WireCAD Community Server Contribution	
	Would you like to be a good WireCAD citizen and contribute your equipment definitions to the WireCAD Communit thus making them available to all WireCAD users. You know you use it, so please contribute.	ty Server;
	(i) Yes I want to be a good WireCAD citizen and contribute automatically to the community	
	\bigcirc Yes, but wait to upload device definitions until I mark them approved	
	🔘 No thanks	
S	now this on startup Next >	Cancel

WireCAD Community Server Contribution Mode Page Options

Item	Description
Yes I want to contribute	
Yes but wait until I check the Approved field	
No Thanks	You can still manually upload from the Equipment Library in this mode.

Replication Setup Wizard	
Application Setup	
Use WireCAD Security Settings	
Select Use WireCAD Security if you want to limit access to the application.	
Administrators set up Groups and Permissions, then assign users to those Groups.	
WireCAD can use either a file based(VISTA) or server based(SQL) permissions set. Choose SQL Server based if you have set up a global equipment server.	
WireCAD uses the windows built-in or Active Directory logins so user creation is easy.	
Use WireCAD Security	
Permissions Database Location VISTA -	
Create SQL Permission Database	
Show this on startup Next > Cancel	//.

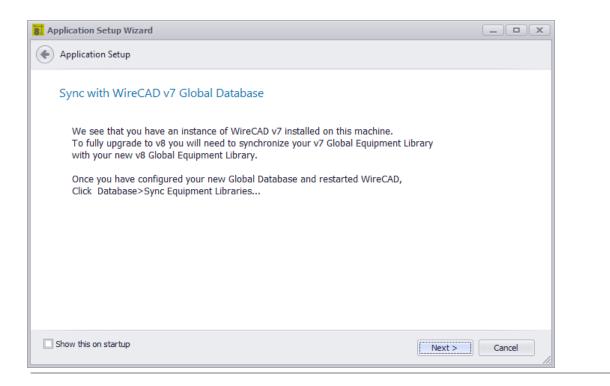
Explanation

WireCAD Security is used to resrict user access to key application sections and functions. If enabled, the user launching WireCAD will be subject to the rules of the group to which they belong. The user that initiates WireCAD security will be the only Administrator and will need to assign all other user permissions. This is managed through the Manage Security [242] dialog.

Use WireCAD Security Setting Page Options

Item	Description
Use Security	
Database Type	VISTADB - while you can use VISTADB as the security database it is only application to this machine. SQL - we will create the permissions database on your SQL Server using the SQL host and login information.

Create SQL Permissions	Do It!
Database	



Explanation

We found a WireCAD previous version. In order to use the work that you have already done you will need to synchronize with the previous version Global Database. There are many variables that can be configured to locate the Global Database elsewhere. When you finish the Application Setup Wizard restart WireCAD then launch the Database >Sync Global Database tool and set the remote database to look at your previous instance.

Related Topics

<u>Synchronizing with Another Global Database</u>ागथै <u>Sync Global Database dialog</u>छिमी

Found Previous WireCAD Version Page Options

None

4.1.3.1.8 The Settings Dialog

Application Menu > Settings Commandline: set

Explanation

The Settings dialog is comprised of the following sections:

- Application settings that determine the behaviour of WireCAD for this machine.
- Basic 263
- WireCAD Security 264
- Global Database Location 266
- Support Paths 267
- Organization 270
- Todo List 271
- User settings specific to your user profile on this machine.
- Basic 272
- Projects List 274
- Drawing 276
- Drawing (advanced)
 278
- <u>Command Line Shortcuts</u> 280
- Enterprise CMS (ENT Only)
 281
- Project settings specific to the current project.
- Basic 282
- Advanced 284
- Locations 286
- Enterprise CMS 287
- Export Settings 289

NOTE: These are the stock basic settings panels. Third party developers may register their own settings panels. See their documentation.

Prerequisites

None

Related Topics

Dialog Options

Item	Description
Save	Commit your changes and issue a SettingsChanged command to the application.
Close	Do nothing and discard your changes.
Restore Defaults	Restore the defaults of the current settings panel.

8 Settings	X
Application ^	Application Settings Some of the basic settings and behaviors
Basic WireCAD Security Glabel Detabase Less	Check for Program Updates Automatically Upon Startup
 Global Database Loca Support Paths Organization 	Community Equipment Library Connection and Contribution
User ^	Community Library Auto-Contribution Mode AutoContributeMyWork Customer Experience Improvement Program ✓ Silent Plugin Loading (hides message if plugin fails to load)
Drawing Drawing (advanced) Command Line Shortcuts	Default Project Database Host(SQL only) dqng464w2f.database.windows.net Use SQL Server Project databases by default V Users (mere mortals) can select Project Database Mode
Enterprise CMS Project	
Ť	Save Close Restore Defaults

Application - Basic Panel Options

Item	Description If updates are available you will see a banner pop up in the lower right-hand corner of the screen.	
Check for Program Updates Automatically on Startup		
Show Application Setup Wizard on Startup	This is usually unchecked except the first run of the application. You can always start the Application Setup Wizard by clicking Application Menu > Application Setup Wizard .	
Community Server Contribution	How will you contribute to the WireCAD Community?	
Customer Experience Improvement Program	You must opt in to the CEIP . We will then gather usage and error data. The generic data will be uploaded to our servers and aggregated so we can bring you a better application.	
Silent Plugin Load	Hide all error messages on startup.	
Default Project Database Host	Applies only to SQL projects. Presets the New Project Wizard	
Use SQL Server Project Databases by Default	Presets the New Project Wizard	
Users (mere mortals) can select Project Database Mode	Some organizations may wish to limit selection of project database type.	

8 Settings		x
Application	WireCAD Security Using WireCAD Security limits access to program function by Users and Groups If you opt to use WireCAD Security you will need to select a Security Database location. We recommend using SQL server based security databases in a multi-user environment.	
User ^	NOTE: Use the File>Application Setup wizard to setup WireCAD Security Use WireCAD Security 	
🎲 Basic	Security Database Type VISTA	•
Projects List		
🎤 Drawing		
🎤 Drawing (advanced)		
Command Line Shortcuts		
Enterprise CMS		
Project ^		
	Save Close Restore Defau	lts

Application - WireCAD Security Panel Options

Item	Description		
Use WireCAD Security	Enable Security. When enabled the WireCAD security system uses the current login to determine program access. If your user is a member of the Administrators group you will be able to control the access of other users via the Application Menu > Security > Manage Security dialog.		
Database Type	Typically you will only use security in a multi-user environment with a SQL host, but the capability exists to use file based VistaDB databases.		

Settings					x
Application ^	Database Co	nnection			
🛞 Basic	Customiz	ze Database Type and Loo	ation		
	Database Mode	VISTA			•
	VISTADB Location	C:\Users\Public\Documen	ts\WireCAD\WireCAD8		
	Global DB File Name	WireCADGlobalEquipment	.vdb3		
Organization	SQL Server Login Ir	nformation			
User ^	Host Name and Ins				
	Database Name	WireCADGlobalEquipme	nt		
🎡 Basic	Use Schema	Schema Name	WireCADGlobalData		
Projects List	🗹 Use Windows S	ecurity			
🎤 Drawing	User Name	testUsername			
🎤 Drawing (advanced)	Password	*****			
Command Line Shortcuts				Test Connection	
Enterprise CMS					
Project ^					
T					
			Save	Close Restore De	faults

Application - Global Database Location Panel Options

Item	Description	
Database Mode	VISTA/SQL NOTE: SQL will work for SQL AZURE as well. We will need the database name and schema name.	
VISTADB Location	Path to the VISTADB file that is your WireCADGlobalEquipment.vdb3 file.	
Global DB File Name	Note that this is the default name given to the global database file but you may change it.	
SQL Server Login Info		
Host Name and Instance	This can be a fully qualified path, ip address, or host name.	
Database Name	The name of the global database to connect to. This is WireCADGlobalEquipment by default but you may choose to rename it.	

Item	Description	
Use Schema	WireCAD v8 supports multiple schema in the same database file. This is useful	
Schema Name	if you are using a cloud based SQL Server service that charges by the database. You can have a schema for your global database and one for each your project databases. All contained within the same database file.	
Use Window Security	Use this if you wish Windows security to manage the login. This will not work with SQL Azure.	
User Name		
Password		
Test Connection	Test to see if you can connect and have the appropriate privileges.	

Settings			
Application ^	Support Paths Where we expect to find	I things	
Basic	Blocks %BLOCKS%	C: \Users \Public \Documents \WireCAD \WireCAD8 \Blocks	
WireCAD Security	Images %IMAGES%	C:\Users\Public\Documents\WireCAD\WireCAD8\Images	
Clobal Database Loca	Documents %DOCUMENTS%	C:\Users\Public\Documents\WireCAD\WireCAD8\Documents	
Support Paths	Icons %ICONS%	C:\Users\Public\Documents\WireCAD\WireCAD8\Icons	
Organization	Template Drawings	C:\Users\Public\Documents\WireCAD\WireCAD8\TemplateDrawings	
User ^	Reports	C:\Users\Public\Documents\WireCAD\WireCAD8\Reports	
	Default New Project Location	C:\Users\Public\Documents	
 Basic Projects List Drawing Drawing (advanced) Command Line Shortcuts Enterprise CMS 	files to be moved or re	re used as variables in equipment definition external file paths. This allows extern side in OS indepentant paths. A typical path looks like this: ename.ext where %BLOCKS% will be replaced by the program with the path abov	
		Save Close Restore De	efaults

Application - Support Paths Panel Options

Item	Description		
Block %BLOCKS%	The path that will replace the %BLOCKS% variable in the equipment library.		
Images %IMAGES%	The path that will replace the %IMAGES% variable in the equipment library.		
Documents %DOCUMENTS %	The path that will replace the %DOCUMENTS% variable in the equipment library.		
Icons %ICONS%	The path that will replace the %ICONS% variable in the equipment library.		
Template Drawings	The path to the Template Drawings folder. This is the folder where Template Drawings are saved when using the File > Save As Template Drawing function is used and the folder that the New Drawing Wizard searches to fill the Templates list:		
	WCTEMPLATE_AH.dwg WCTEMPLATE_AHC.DWG WCTEMPLATE_ALL.DWG WCTEMPLATE_AV.DWG WCTEMPLATE_B.DWG WCTEMPLATE_BLANK.DWG WCTEMPLATE_C.DWG WCTEMPLATE_D.DWG WCTEMPLATE_D.DWG WCTEMPLATE_E.DWG		
	Show This Again Next > Cancel		
Reports	The path to the top reports folder. This is a recursive search and will enumerate all subfolders and files.		

Item	Description				
Default New Project	Presets the New Project Wizard.				
Location	ki New Project.				
	New Project				
	Project Name and Location				
	Name:				
	Description:				
	Project Files Path: C: Users \Public \Documents				
	Database File Location:				
	Project Lead Person:				
	Project Path:				
	Next > Cancel				

Application ^	Organization	
 Basic WireCAD Security 	The settings are	used in some of the plugins. For an example, see the Title Block Filler plugin
Global Database Loca	Company Name	WireCAD
Support Paths	Address1	1112 6th Street South
💮 Organization	Address2	
User ^	City	Nampa
	State/Region	Idaho
🎲 Basic	Postal Code	83651
Projects List	Country	USA
🎤 Drawing	Phone	+1 661.253.4370
Drawing (advanced)	Fax	+1 208.468.8797
Ommand Line Shortcuts	Web Address	www.wirecad.com
Enterprise CMS		
Project ^		

Application - Organization Panel Options

This one's self-explanatory

8 Settings			x
Application ^	Enter one item per line Assignees	Todo Statuses	
 Basic WireCAD Security Global Database Loca Support Paths Organization Todo List 	Fred Flinstone Wilma Flintstone Barny Rubble Betty Rubble	In Progress Deferred Waiting Parts Done	*
User User User User User Droycts List Drawing Drawing Command Line Shortcuts Enterprise CMS		Todo Priorities Like Now Man Tomorrow Some Day Whenever	*
Ť		Save	Restore Defaults

Explanation

Sets the dropdowns in the Project Todo List

Application - Todo Panel Options

Item	Description
Assignees	List of people to whom a task may be assigned.
Statuses	List of todo item statuses. Modify this to suit your needs
Priorities	List of priorities. Again, make it fit your needs.

8. Settings		x
Application ^	User Settings Customize It For You Open New Drawing Upon Application Startup Use the New Drawing Wizard When Creating a New Drawing Open My Last Project When I Start WireCAD Show the WireCAD Startup Page When I Start WireCAD	and Tricks
Organization User Basic Projects List	Show the Wile CAD Statup Page when I stat twie CAD Warn Me When I Mismatch a Signal Type While Drawing Cables When I Double-click a Many-to-Many Cable Assign All of Them Keep My Equipment Library Open After I Add Equipment to the Drawing (Only When I Link Pointers Go Back to the Starting Drawing When Finished My Spacebar is my Enter Key	·
 Drawing Drawing (advanced) Command Line Shortcuts Enterprise CMS 	Library Multiple Port Add Leading Zero Count Only applies to newly created ports. This setting presets the Add Port Dialog. I will manually refresh my Project Explorer (faster, but less info). When a Drawing Opens Don't Show the Draw Cables Tool Panel, I Know How for Lazy load my drawings in the Project Explorer. Faster but does not show all for	to Find it.
Project ^	Save	Restore Defaults

User - Basic Panel Options

Item	Description
Open New Drawing Upon Application Startup	Opens a blank new drawing when WireCAD starts.
Use the New Drawing Wizard	Shows the New Drawing Wizard when you click File > New. Allows the use of template drawings. If set to false, just creates a new drawing without a template.
Open My Last Project When I Start WireCAD	Behaves like earlier versions of WireCAD that opened the last project automatically on startup.
Show Library Tips	This shows the Tips and Tricks form in front of the Equipment Library.
Show the WireCAD Startup Page	The WireCAD Startup Page shows the latest news from the WireCAD ranch.

Item	Description		
Warn of Signal Type	When you finish drawing a cable WireCAD will check the source and destination		
Mismatch	port signal types and let you know		
	if they don't match. You can use the new status panel to know the port type if		
	you are confused.		
	USB USB		
	IREWIRE IEEEDAT-1001-		
	HERNET RJ45		
	FIBRE SFR		
	JTER		
	Calculator:		
	Name: FIBRE Type: DATA Conn: SFP 23 5000 , 32		
When I Double-click a	Many-to-Many cables that are set for Multiple Database Entries can either be		
Many-to-Many Cable Assign	assigned all at once by a single		
All of Them. double-click, or if this setting is turned off a double-click will find the			
	to the cursor and assign that.		
Keep Equipment Library	This is useful if you are using dual monitors and want to have the Equipment		
Open	Library stay open on the other monitor.		
When I Link Pointers Go	The default Link Pointer function will leave you on the second sheet. If you set		
Back to the Starting	this to true it will jump you back to		
Drawing When Finished	the first sheet.		
My Spacebar is my Enter	This is helpful when executing command line commands		
Кеу			
MouseWheel Double-click			
Zooms Extents			
Library Multiple Port Add			
Leading Zero Count			

Item	Description
I Will Manually Refresh the Project Explorer	True to disable autorefresh on the Project Explorer. This may be helpful if your project grows to have hundreds of drawings.
When a Drawing Opens Don't Show the Draw Cables Tool Panel	
Lazy Load my drawings in the Project Explorer	True to disable recursive search of all drawing subfolders. This may be helpful if your project grows to have hundreds of drawings.

8 Settings					x
Application	^ ^	M	ost Recently Used Pro	-	
🎲 Basic		Mos	Manage your most recently used st Recently Used Projects List Count	project list	6 🜲
🚆 WireCAD	Security		FileName	FilePath	Exists
📃 🛛 Global Da	tabase Loca	•	just a test.wc6plf	C:\Users\Public\Documents\just	
Support P	Paths		WireCAD Edit Suite Project.wc6plf	C:\Users\Public\Documents\Wire	\checkmark
💮 Organizat	tion		sql shootout nab 2014.wc6plf	C:\Users\Public\Documents\sql s	\checkmark
			WireCAD Edit Suite Project - SQL	C:\Users\Public\Documents\Wire	
User	^ [My First Project RITI.wc6plf	C:\Users\Public\Documents\My Fi	\checkmark
Basic	-		IDXTEST_AZURE.wc6plf	C:\Users\Public\Documents\IDX	\checkmark
Projects L	ist				
-	(advanced)				
Command	Line Shortcuts				
Enterprise	e CMS				
Project	^			Clear Remove Missing It	tems Remove Item
				Save	Close Restore Defaults

User - Projects List Panel Options

Item	Description
Most Recently Use Projects List Count	How many items allowed in the list.
Projects List	
Clear	Reset the list.
Remove Missing Items	Remove items that cannot be found because the path has changed or is currently unavailable.
Remove Item	Remove the selected row.

Application ^	Drawing Environment Setti	ngs		
💮 Basic	Set up the drawing environment to your lik	ing. Other users on this	nachine will be able to set	their own settings.
WireCAD Security	Auto Save Duration (in minutes)	10 🗘 🗹	Drawing Background Follo	ows Skin Theme
Global Database Loca	Arrow Move Nudge Distance	0.05 🌲 Bac	kground Color 🔲 255	, 255, 255 🔹
Support Paths	Grip Color 0, 0, 255 🔹	OSI	nap Color 📃 🔻	
Organization	Grip Size 10 🗘 🥕	100		
lser ^	Cross Hair Size in Pixels 2000 🗘			>
 Projects List Prawing 	Cross Hair Size in Pixels 2000 🗘	Pick :	Size in Pixels 10 🗘 .	
P Drawing (advanced)	Show Layout Tabs	Mo	usewheel Zoom Scale Plu	is20 🔻
Command Line Shortcuts	Show the UCS Axis		Show Rulers V	Vidth 25 🜲
Enterprise CMS	🗹 Show Paper Space Paper (Draws a "Paper	border indicating the se	lected printer paper boun	ids)
a cherphoc cho	Save Drawing After Every Cable Number A	Assignment	Default File Format	WG 2007 🔻
Project ^	🗌 Touchscreen Mouse Logic 🛛 🗹 Clear Sele	ction After Command Exe	ecutes	

User - Drawing Panel Options

Item	Description		
Auto Save Duration	Sets the Auto Save Duration. Auto Save saves only drawings that are not currently involved in a function.		
Arrow Move Nudge Distance	When nudging a selection how far do we move in the direction.		
Grip Color	Sets the grip color.		
Grip Size	Sets the grip size in pixels.		
Cross Hair Size	Sets the cross hair size in pixels.		
Show Layout Tabs	Shows the layout tabs at the bottom of the drawing frame		
Show UCS Axis	Shows the UCS Axis:		
Show Paper Space Paper	<text><image/></text>		

Item	Description	
	False	
Save Drawing After Every	Setting this to true is not recommended but will speed the assignment process.	
Cable Number Assignment	You are responsible then for saving the drawing to ensure drawing/database parity.	
Touchscreen Mouse Logic		
Clear Selection After Command Executes	Overrides the default behaviour of leaving the selection set in tact after an operation.	
Drawing Background Follows Skin Theme		
Background Color	Sets the background color.	
OSnap Color	Sets the Object Snap Color.	
Pick Size	Sets the pick size in pixels. The pick determines the search window when clicking the cursor.	
Mousewheel Zoom Scale	How far do we zoom with every click of the mouse wheel	
Show Rulers		
Ruler Width	In pixels	
Default File Save Format		

Application ^	Advanced Drawing Behaviors and Properties		
Application	General Document Properties		A 4
😳 Basic	BackupOnSave	True	
WireCAD Security	DisableShowPrinterPaper	False	
Global Database Loca	DisableXrefToolTips	True	
	EnableToolTips	True	
Support Paths	EnableUrls	True	
Organization	MirrorText	True	U
	ShowUCSAxis	True	
User ^	Global Render Properties		~
E	Action HighLight Quality	HighSpeed	
🍪 Basic	Action Properties	Default	
Projects List	CrossSize	10	
	CursorAxisColor	Black	
	CursorPickColor	Black	
Drawing (advanced)	CurveResolution	500	
Command Line Shortcuts	GridColor	Tomato	Ψ
Enterprise CMS			
3422 ·			
Project ^			
T			

User - Drawing Advanced Panel Options

These are really granular controls of the render engine. It is beyond the scope of this manual to explain each we will hit some, but play with them if you are interested and see how they behave.

Item	Description			
BackupOnSave	Saves the file with the ~.bak extension before overwriting the existing file.			
DisableShowPrinterPaper	Same as Show Paper Space Paper			
DisableXrefTooltips	Sometimes XREF tooltips can be annoying.			
EnableTooltips	Show tooltips or not.			
EnableURLs	URLs of object will be opened.			

Item	Description					
MirrorText	Controls how the Mirror command deals with text.					
ShowUCSAxis						
ActionHighlightQuality	Speed or Quality					
ActionProperties	Default or HideOnLeave					
CrossSize						
CursorAxisColor						
CursorPickColor						
CurveResolution	How many segments to a circle.					
GridColor						
LineDrawQualityMode	Speed/Quality					
MappedImageBoundWidth	Used only in 3D texture mapping.					
OSnapSize						
PickAdd	Sets whether a user selection action replaces the current selection or adds to it.					
ReferenceCrossColor						
RenderingQuality	Speed/Quality					
RubberBandColor						
SelectActionKey	Set a key value used in combination with mouse-down to add or remove					
	selected item(s) from a selection.					
SelectingCrossColor	Crossing window select color.					
SelectingWindowColor	Containing window select color.					
SelectionPreviewFlag	Highlight entities that the mouse hovers over.					
ShowHatches	Show hatches(filled objects).					
UseGLDIBBitmap						

Item	Description
Tooltip Fiddling	Change the appearance and behaviour of the tooltips.

Application ^		Command Name	Alias	ShortCut	Assembly	NameSpaceA	MethodName	
~	٩							*
🎡 Basic	•	About	about				About	J
WireCAD Security		Activate Viewport					ActivateViewport	
Global Database Loca		AddAttribute					AddAttribute	
Support Paths		Add Attribute	AddAttribute	att			AddAttributeEx	
Organization		AddBackboneSe	abs				AddBackboneS	
		Add Cable Jumps		aj			AddCableJumps	
User ^		AddCircuit	nc				AddCircuit	
Basic		AddConnection					AddConnection	
		AddEditPluginInfo					AddEditPluginInfo	
Projects List		AddMultiCoreCa		mc			AddMultiCoreC	
Drawing		Add Vertex		av			AddVertex	
Drawing (advanced)		Arc	Arc	a	VectorDraw.P	VectorDraw.P	ArcEx	
Command Line Shortcuts		Area		aa			Area	
Enterprise CMS		Assign Cable Nu		ac			AssignCableNu	
		AssignSysName		as			AssignSysName	Ŧ
Project ^	Re	gister Your Own Cor	mmand Rem	ove Command		Click to Check	c for Warnings Chec	:k

User - Command Line Shortcuts Panel Options

Item	Description
Register Your Own Command	Developer function
Remove Command	Developer function
Check	Checks the shortcuts to see if you have any duplicates.

Item	Description		
Commands List	You may freely edit any of the columns:		
	CommandName		
	• Alias		
	ShortCut		
	Even though the grid allows you to edit the following fields if you are not a		
	developer you should NOT edit any of the columns:		
	Assembly		
	NameSpaceAndClass		
	MethodName		
	You will break WireCAD.		

8 Settings		x
Application Application Application Basic Global Database Loca Global Database Loca Support Paths Organization User Drawing Projects List Drawing Drawing Drawing Command Line Shortcuts Enterprise CMS Project	CMS User Settings Some settings specific to you ✓ Use Stock WireCAD Startup Page Default New Circuit Strand Count 2 ↓ Warn of Connector String Mismatch ✓	
	Save Close Re	store Defaults

User - Enterprise CMS Panel Options

ltem	Description			
Use Stock WireCAD Startup Page	This will change your Startup page from the CMS specific page to the default WireCAD page.			
Default New Circuit Strand Count	When creating a new circuit, a default strand count for jumpers is created. This will change that strand count to a different value.			
Warn of Connector String Mismatch	Having this box checked will allow a warning message to display anytime WireCAD detects that 2 ports being connected have a different connector type.			

8. Settings	x					
Application ~ User ^	Project Settings Set up defaults for the current project. Each project has its own settings.					
 Basic Projects List Drawing 	Starting Cable Number 1001 Integer used in conjunction with the Cable Number Format tool as a starting number Leading Zero Count 3 Ignore Cable# Text Color					
 Drawing (advanced) Command Line Shortcuts Enterprise CMS 	I Build My Racks From the Top Down Default Rack Height in Rack Units 45 \$ Default Cable Type Manufacturer and Cable Type To Use When Assigning Cable Numbers					
Project ^	Default Cable Manufacturer BELDEN Default Cable Type 1505A Used when no cable type is associated with a Signal Type for the cable number being assigned					
 Advanced Locations Enterprise CMS Export Settings 	Default Plan View Block File: %BLOCKS%\Plan View \equipment12x12.dwg ✓ Users (mere mortals) Can Modify These Project Settings Add Pinout Data to Each Cable. Pinout Data is Defined in the Database>Pinouts Tool ✓ User the device display settings. Not the Project Settings.					
	Save Close Restore Defaults					

Project - Basic Panel Options

Item	Description	
Starting Cable Number	The default starting number of ALL sequences.	

Item	Description			
Leading Zero Count	How many leading zeros in SysNames and Cable Numbers			
Ignore Cable # Text Color	Does not color the Cable Number text entities.			
I Build My Racks From the Top Down	Probably should read I number my racks from the top down.			
Default Rack Height				
Default Cable Type	This is the default of defaults. The Signal Types table can override this.			
Default Plan View Block File	If no Plan View File is defined on the Equipment definition then this will be use by the Populate Equipment function in the Plan View Tools.			
Users (mere mortals) Can Modify These Project Settings	If you can see and edit this you are a WireCAD Administrator or have not set up WireCAD Security.			
Add Pinout Data to Each Cable	Allow pinout data to be attached to a cable as it is being assigned. The pinout criteria must match in order to be a candidate for inclusion in the list of available pinouts for a cable.			
Use the device display settings	This setting prioritizes any Equipment Library device settings saved with the device over the settings saved for the project.			

oplication ~	Number Generation
Jser ^ Js	 Disable Find Next Available SysName (Use Next Number W/O Checking) Disable Find Next Available Cable Number (Use Next Number W/O Checking) The default behaviour is for WireCAD to lookup the next number from the Next Numbers table, then check to see if that number is in use - if so keep incrementing until an available number is found. Disabling this functionality will use the number in the Next Numbers table without checking its availability. Automatically Consume Cables that are marked as Prewired. This will use those numbers applied to the PreWire Cable instead of producing a new number. Hard Delete Cables and SysNames Removes the Cable or SysName record upon delete instead of marking available.
Project ^ Basic Advanced Cocations Enterprise CMS Export Settings	 Strict Multicore Location Assignment. Ensures that all assigned cores go to the same locations. IP Mask Mode None Default Subnet Mask 255.255.255.0 Relational Data By default WireCAD attempts to maintain a series of tables that relate the main tables to each other. This allows you to see, for example, which drawings a SysName can be found in etc. The relational data can get out of sync or otherwise corrupt. You may elect here to not maintain it in the project and your project will speed up. Your main Equipment List, Cables, Drawings, and Circuits tables WILL NOT BE EFFECTED. Maintain Relational Data Disable Cable Number Edit Dialog Mask

Project - Advanced Panel Options

Item	Description
Disable Find Next Available SysName	The default behaviour is for WireCAD to lookup the next number from the Next Numbers table, then check to see if that number is in use - if so keep
Disable Find Next Available Cable Number	incrementing until an available number is found. Disabling this functionality will use the number in the Next Numbers table without checking its availability.
Automatically Consume Prewire Cables	This will use those numbers applied to the PreWire Cable instead of producing a new number.
Hard Delete Cables and SysNames	Overrides the default behaviour which is to mark a deleted cable Available=true and place Deleted in key fields. Enabled this removes the row from the table upon deletion.

Item	Description		
Strict Multi-core Assigment	Enforces a policy that all cores in each end of a multi-core cable must originate from the same location.		
IP Mask			
Maintain Relational Data	By default WireCAD attempts to maintain a series of tables that relate the main tables to each other. This allows you to see, for example, which drawings a SysName can be found in etc. The relational data can get out of sync or otherwise corrupt. You may elect here to not maintain it in the project and your project will speed up. Your main Equipment List, Cables, Drawings, and Circuits tables WILL NOT BE EFFECTED.		
Disable Cable Number Edit Dialog Mask	If you find the masking of the Edit Cable Data Cable Number textbox to be cumbersome you can disable it here.		

String Parsing			
	Elevation - Slot Delimet	er SLOT	
e the location field into its const	ituent part like: Campus.Bui		
🗹 Enable Locations Lookup Table			
to predefine your locations and	enforces use of only those p	predefined locations.	
elds			
5	Campus Field Caption	Campus	
I	Building Field Caption	Building	
	Floor Field Caption	Floor	
	Room Field Caption	Room	
	Rack Field Caption	Rack	
Start Numbering at 1. Uncheck to Start at 0			
	e the location field into its const ist be consistent across the proj Lookup Table to predefine your locations and elds	Elevation - Slot Delimet Elevation - Slot Delimet is used to separate the various elements of the location fi e the location field into its constituent part like: Campus.Bui is to econsistent across the project. Lookup Table to predefine your locations and enforces use of only those p elds S Campus Field Caption Floor Field Caption Room Field Caption Room Field Caption	

Project - Locations Panel Options

Item	Description
Location Delimiter	Settable on project creation only this is the delimiter that separates CAMPUS from BUILDING, BUILDING from FLOOR, etc. The default is a [.]. This will create Qualified Locations in the form of: Campus.Building.Floor.Room.Rack
Elevation-Slot Delimiter	The delimiter that separates the elevation numeric from the slot numeric. For example: a device located in elevation 20 at slot 5 with a delimiter of a dash [-] would be typed and 20-5.
Enable Locations Lookup	If disabled the locations field may be typed into directly. This may lead to confusion or referencial issues, ie; user a calls something Rack 1 and user b calls the same thing RK 01.
Locations Table Fields	Enable those that you will use.
Start Numbering at 1	Only applies if you are auto generating locations.

8. Se	ttings				x	
App Use	er ^	Cable Management Some basic setting	System Basics	i		
60	Basic	Manage Status Items				
6	Projects List	Default New Backbone Status PROPOSED				
Þ	Drawing	Default New Circuit Status	PROPOSED		+ + -	
Þ	Drawing (advanced)					
(C)	Command Line Shortcuts					
6	Enterprise CMS	Backbone Number Format	B{0}	Circuit Number Format	{0}	
Pro	ject ^	Jumper Number Format	J{0}.{1}.{2}	Horizontal Cable Number Format	H{0}.{1}.{2}	
6	Basic	Default Jumper Manufacturer	GENERIC -	Default Jumper P/N	GENERIC -	
6	Advanced	Default H Cable Manufacturer	GENERIC -	Default H Cable P/N	GENERIC -	
6	Locations					
	Enterprise CMS					
(j)	Export Settings					
				Save Close	Restore Defaults	

Project - Enterprise CMS Panel Options

ltem	Description	
Manage Status Items	When creating a backbone, you have the ability to mark a "status" on that backbone such as "In Use", "Proposed" ETC. Using the [+] button, you can create new status items. Selecting a status will cause that to become the default for all backbones in this project.	
Backbone Number Format	The variable {0} contains the next number in the Next Numbers grid for Backbones. Define the string format of the next Backbone number.	

Item	Description
Jumper Number Format	The variable {0} contains the Circuit base number. The variable {1} contains the Strand Number of the circuit for this jumper The variable {2} contains the Ordinal Number of the circuit for this jumper. Define the string format of the next Jumper number.
Default Jumper Manufacturer and P/N	
Default Horizontal Cable Manufacturer and P/N	
Circuit Number Format	The variable {0} contains the next number in the Next Numbers grid for Circuits. Define the string format of the next Circuit number.
Horizontal Cable Number Format	The variable {0} contains the next number in the Next Numbers grid for Horizontal Cables. Define the string format of the next Horizontal Cable number.

Settings		X
Application ~ User ^	Ouput Settings Determines the default preview output behavior	
 Basic Projects List Drawing 	Use Template Always Ask For Filename and Path Circuit File Name Format CKT{0}	
Drawing (advanced) Command Line Shortcuts Enterprise CMS	Backbone File Name Format BB{0} File Format dwg Path C:\Users\Public\Documents\just a test\Drawings	*
Project ^	Create Folders For Each IT System Automatically Overwrite Files of Same Name Append Date Stamp to File Name	
Advanced Locations Enterprise CMS Export Settings		
	Save Close Restore Defau	

Project - Export Settings Panel Options

Item	Description
Use Template	Path to to a template drawing that the output will be exported into. Your template drawings can contain any page borders or layouts and settings that you wish.
Always Ask for FileName and Path	You are involved in the filename selection and path
Circuit FileName Format	Sets the file name format for Circuit output. {0} = Circuit Name
Backbone FileName Format	Sets the file name format for Backbone output. {0} = Backbone Number
File Format	Presets the output format.
Path	Where do we output.

Item	Description	
Create Folder for Each IT Systems	Create a new folder for each IT System and output the preview to that folder.	
Automatically Overwrite Files of Same Name	Self-explanatory.	
Append Date Stamp to FileName		
Circuit Post Process Script	Path to a c# file which will be run post export but pre write-to-disk. See the Post	
Backbone Post Process Script	Process Scripts 1941 topic for more information.	

4.1.3.2 Drawing Dialogs

4.1.3.2.1 CAD Dialogs

4.1.3.2.1.1 New Drawing Wizard

New Drawing	x		
New Drawing			
(Vone) ANSI AH.dwg ANSI_A Landscape.DWG ANSI_A Portrait.DWG ANSI_A-E.DWG ANSI_D.DWG ANSI_C.DWG ANSI_C.DWG BLANK.DWG ISO_A1 Landscape.dwg ISO_A1 Portrait.dwn			
Z Show This Again	Next > Cancel		
New Drawing			
Use Model Space Boundaries			
Use Model Space Boundaries Model Space Text Height 25 + Printed Output Text Height 4 + Color ByLayer Note: If you do not create boundaries here you can use the Format>Model Space Boundaries control			
Z Show This Again	Next > Cancel		

Drawing > File > New

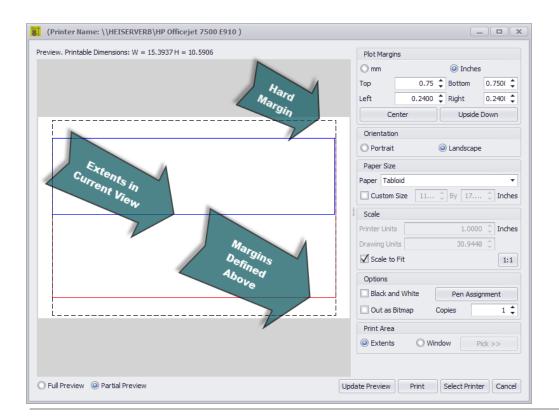
Commandline: nd

Explanation

Create a new drawing for the project.

ltem	Description
Template Drawings List	Drawings placed in the the %TEMPLATEDRAWINGS% support path. Any drawing is a candidate for saving as a template.
Model Space Boundaries	See this topic on <u>Model Space Boundaries</u> ອາວັ
Navigate Forward	Next >
Navigate Backward	 Image: A start of the start of
Show This Again	Show this dialog again.

4.1.3.2.1.2 Print Preview



Drawing > File > Print Preview [Cntrl]+[P] Commandline: print

Item	Description
Selected	8 (Printer Name: \\HEISERVERB\HP Officejet 7500 E910)
Printer	Preview. Printable Dimensions: W = 15.3937 H = 10.5906
	Make sure that you select a printer first.

Plot Margins	Set the unit of measure and the Top, Bottom, Left and Right margins.
	NOTE: the printer driver will return the hard margins of the printer. These are represented by
	the black dashed line in the Partial Preview mode. Setting the margins less than the hard
	margin values will have no effect.
Center	Adjusts the left and top margins to center the entities in the given space.
Upside Down	Rotate the output to the plotter
Orientation	Portrait/Landscape
Paper Size	
Scale	Numerical scaling of the entities to the paper.
Scale to Fit	Fit the entities to the paper
1:1	Scale 1:1
Black and	
White	
Out as Bitmap	Render to a bitmap then output that. Has different effect on quality depending on printer/plotter.
Copies	
Pen	Shows the Pen Assignment dialog. You can assign a different line thickness to each of the
Assignment	255 indexed colors.
Print Area	Pick a window or print the extents
Preview Mode	Full preview or partial view to show margins.
Update	Refresh the preview
Preview	
Print	Do IT!
Select Printer	
Cancel	

4.1.3.2.1.3 PDF Export

Plot Margins mm) inches Top: 25.4000 Bottom: 25.4000 Left: 0.0000 Right: 0.0000 Upside-Down Center To Paper Orientation ○ Potrat ② Landscape Number of Copies : 1 Paper Tabloid (11x 17/n) Custom 279.40 by 431.80 mm Scale Printer Units: 1 mm Drawing Units: 1.10579 ⓒ Scale to Rt Output Options © Potrat @ Landscape Printer Units: 1 mm Drawing Units: 1.10579 ⓒ Scale to Rt Output Options © Forta @ Landscape Preview Options © Patial © Full @ Update ♥ Save to file ♥ Save to file	(Printer Name: test1.p	pdf) ×
		mm inches Top: 25.4000 Bottom: 25.4000 Left: 0.0000 Right: 0.0000 Upside-Down Center To Paper Orientation Orientation Potrait Landscape Number of Copies : 1 Paper Tabloid (11 x 17 in) Custom 279.40 by 431.80 mm Scale Printer Units: 1 Drawing Units: 1.10579 Scale to Fit Output Options Black and White Pen Assignent Ignore gradient background color Print Area
Drawing > File > PDF Export	O Partial 💿 Full 🌠 Update 🗹 Save to file 🗮 Save t	to file 📀 Exit

Commandline: pdf

Item	Description
Selected	(Printer Name: \\HEISERVERB\HP Officejet 7500 E910)
Printer	Preview. Printable Dimensions: W = 15.3937 H = 10.5906
	Make sure that you select a printer first.

Plot Margins	Set the unit of measure and the Top, Bottom, Left and Right margins.
	NOTE: the printer driver will return the hard margins of the printer. These are represented by
	the black dashed line in the Partial Preview mode. Setting the margins less than the hard
	margin values will have no effect.
Center	Adjusts the left and top margins to center the entities in the given space.
Upside Down	Rotate the output to the plotter
Orientation	Portrait/Landscape
Paper Size	
Scale	Numerical scaling of the entities to the paper.
Scale to Fit	Fit the entities to the paper
Black and	
White	
Out as Bitmap	Render to a bitmap then output that. Has different effect on quality depending on printer/plotter.
Copies	
Pen	Shows the Pen Assignment dialog. You can assign a different line thickness to each of the
Assignment	255 indexed colors.
Print Area	Pick a window or print the extents
Preview Mode	Full preview or partial view to show margins.
Update	Refresh the preview
Preview	
Save to File	Do IT!
Select Printer	
Cancel	

4.1.3.2.1.4 Export to Visio

8 WireCAD DWG to Visio Converter	x
Page Size	▼ Landscape
Output File Name C:\Users\Public\Documents\just a test	\Drawings\test1.vsd ···· Overwrite File if Exists 🗌
Scale	Cable Routing
Scale to fit Visio pageModel Space Extents: 477.4800 , 129.3715Scale Factor X:1.0000Y:1.0000	 Allow Visio to route cables Attempt to keep WireCAD routes
Progress	
	Steps Process drawing layers Processing all non-cable geometry Processing cables
	Convert Close

Drawing > File > Export to Visio Commandline: visio

Explanation

The WireCAD to Visio converter is an intelligent converter. It creates active working Visio drawings from you WireCAD drawings. What this means is that it is not just a dumb geometric import but rather entities are examined and functioning Visio entities are created. Cables in WireCAD become Visio Connectors allowing movement of blocks while keeping the wires attached.

Item	Description
Page Size	Set the Visio page size.
Output File Name	Name the file
Landscape	Is Landscape
Overwrite File if Exists	
Scale to Fit	Fit the WireCAD dwg entities onto the selected page size.
Scale Factor	Manually scale the WireCAD entities to the Visio page size.
Cable Routing	Here is the magic. You can either let Vision route the cables or you can attempt to keep the appearance of your WireCAD routes.
Convert	Do IT!
Close	

4.1.3.2.1.5 Layers

ument Tree		New L	ayer 🔞 Dele	te Lay	er 🖉	Set Cu	urrent N	ew Laye	r Name			
Main Drawing [test1]		Status	Name	On	Fro	Lock	PenColor	l	ine Type	Line \	Neight	
	9					nî.						
	•	0	0	9		nî	For	egroC	Continuous	0.00	mm	
			CABLES	?		nî	For	egroC	Continuous	0.00	mm ———	
			COMMENTS	\mathbb{Q}		nî.	Fore	egroC	Continuous		mm ———	
			CONNECTORS	9		nî.	Fore	egroC	Continuous	0.00	mm —	
			EQUIPMENT	9		nî.	Fore	egroC	Continuous		mm —	
			LOCATION	\mathbb{Q}		nî.	Fore	egroC	Continuous		mm —	
			MANUFACTU	9		nî.	Fore	egroC	Continuous		mm —	
	-		SYSNAMES	\mathbb{Q}		nî.	For	egroC	Continuous	0.00	mm —	
			ALIAS	\mathbb{Q}		nî.	For	egroC	Continuous		mm —	
			PINNAME	\mathbb{Q}		nî.	For	egroC	Continuous		ult	
			WC_USER1	\mathbb{Q}		nî.	For	egroC	Continuous	Defa	ult	
			WC_USER2	\mathbb{Q}		nî.	For	egroC	Continuous	— Defa	ult	
			WC_USER3	\mathbb{Q}		nî.	For	egroC	Continuous		ult	
			WC_USER4	\mathbb{Q}		nî.	For	egroC	Continuous		ult	
			AES	\mathbb{Q}		nî.	For	egroC	Continuous	— Defa	ult	
			AES_PIN	\mathbb{Q}		nî.	For	egroC	Continuous	— Defa	ult	
			AES_NO	\mathbb{Q}		nî.	For	egroC	Continuous	— Defa	ult	
			WC_DESCRI	\mathbb{Q}		in C	For	egroC	Continuous	— Defa	ult	
			WC_IPAddress	0		an C	Fore	egroC	Continuous	— Defa	ult	

Drawing > Drawing > Layers Commandline: lay

Explanation

The Layers dialog controls the document Layers collection.

A Layer is the equivalent of the overlay used in paper-based drafting. It is the primary organizational tool in the WireCAD CAD space, and you can use it to group information by function and to enforce linetype, color, and other standards.

Organizing Layers and the objects on Layers make it easier to manage the information in your Drawings.

When you put one layer over another the result is the complete drawing.

Having kindred objects on the same layer it is very helpful in order to organize the drawing.

When you begin a new drawing, WireCAD creates a special layer named 0. By default, layer 0 is assigned color number 7 (white or black depending upon your background color), the CONTINUOUS linetype and a lineweight of

Default (the default setting is .01 inch or .25 mm). Layer 0 cannot be deleted or renamed.

All new objects are added to the active layer if no layer is specified.

Using the Layers editor you can Freeze (Hide), Thaw (Show) and Lock layers.

By controlling whether a Layer's state is Thaw or Frozen you can change the appearance of your drawing to display only the information on the Layers that are visible. Freezing unused Layers will help the performance of WireCAD.

Item	Description	
Document Tree	Lists the document's external references. By selecting an item in the document tree	
	you can control the layers of XREF drawings within the current drawing.	
New Layer	Creates a new layer with the name entered in the associated text box	
Delete Layer	Deletes the selected layer as long as it is not the current layer or layer 0.	
Set Current	Set's the current layer. All entities added to the drawing are added to the current layer.	
New Layer Name		
field		
Status	The one and only current layer	
Name	The name of the layer	
On	Is it visible	
Frozen	Is it visible. The difference between Thawed/Frozen and On/Off is a very subtle	
	distinction. Turning a layer off using the ON/OFF setting makes the objects on that	
	layer hidden, but these objects will still be considered part of the drawing. For example,	
	objects that have been turned off are still selectable in the drawing. Selecting it directly	
	on screen of course still isn't possible, as you've nothing to click on. But other ways of	
	selecting objects will still pick it up - try a SELECTALL for example, and your objects	
	that are turned off will be selected.	
	Frozen layers on the other hand are completely off. They are not considered part of the	
	drawing at all, and are therefore not selectable.	
Lock	Make the layer unselectable.	
Pen Color	Set the pencolor for the layer. Only entities that have their PenColor property set to	
	ByLayer will receive this value.	

Line Type	Set the Line Type for the layer. Only entities that have their Line Type property set to ByLayer will receive this value.
Line Weight	Set the Line Weight for the layer. Only entities that have their Line Weight property set to ByLayer will receive this value.
ОК	Commit changes and dismiss
Cancel	Dismiss

4.1.3.2.1.6 Layouts

Model PAPER_SPACE	Set Current
Layout1	New
	Remove
	Rename
	Сору
	Move Up Move Down
	Exit

Drawing > Drawing > Layouts Commandline: layouts

Explanation

A Layout is used to compose or lay out your model drawing for printing. A layout may consist of a title block, one or more viewports, and annotations. As you create a layout, you can design floating Viewport configurations to visualize different details in your drawing.

A layout is a paper space environment that simulates a sheet of paper. In a layout, you can create and position viewport objects, and you can add a title block or other geometry. You can create multiple layouts in a drawing to display various views. Each layout displays the drawing as it will be printed on the sheet of paper.

Typically, when you begin designing a layout environment, you step through the following process:

- 1. Create a model drawing.
- 2. Activate or create a layout.
- 3. Insert a title block.

- 4. Create floating viewports and position them in the layout.
- 5. Set the view scale of the floating viewports.
- 6. Print your layout.

ltem	Description
Layout List	List the Layouts collection.
Set Current	Set the selected item to be the current view.
New	Create a new Layout
Remove	Remove the selected layout as long as it is not the Model
Rename	Rename the seleced layout as long as it is not the Model
Сору	Copy all entities from the selected layout to a new layout with the name of your choosing.
Move Up	December the list
Move Down	Reorder the list

4.1.3.2.1.7 Point Styles

Point Style Format	x
Point Properties	
 Dot None Cross X Mark Line 	Point Size: 0.2500 🗘 Units
Add Circle	Relative to Screen
Add Square	Absolute Units
	OK Cancel

Drawing > Drawing > Point Styles Commandline: pointstyles

Explanation

All point entities inserted into the drawings space will render based on the settings here.

NOTE: if you are using the Rack Builder tool WireCAD uses point entities to generate the positioning grids and sets this value programmatically.

Item	Description
Dot	Display as a single dot.
None	None
Cross	Cross
X Mark	X
Line	Line
Add Circle	Add a circle around the above selection.

Reference	305
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Add Square	Add a square around the above selection.
Point Size	
Relative/	Set the size in units as defined
Absolute	

4.1.3.2.1.8 Text Styles

Text Styles X
Basid Advanced
Style Name
WC_CONNECTOR
Style Maps to this Font
TTF Font: Arial Height: 0 + Big Font
Style Bold Italic Underline StrikeOut OverLine
Preview
Hello World!
Hello World!
OK Cancel

Drawing > Drawing > Text Styles Commandline: ts

Explanation

TextStyle is a named, saved collection of settings that determines the appearance of text strings.

You can create your own text styles which can have specific fonts and text height. You can also specify if the text will be underlined, bold etc.

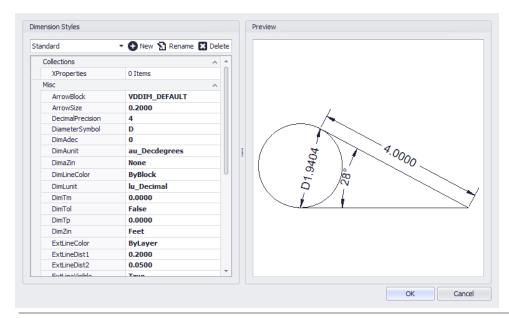
There is no limit to the number of text styles you can create in your drawing.

The active text style determines the appearance of new text created in the drawing. StyleName of text object will get the value of ActiveTextStyle property.

When you enter text, it uses the current text style, which sets the font, size, and other text characteristics. If you want to create text using a different text style, you can make another text style active.

Item	Description
Style Name, Add, Rename, Delete	Create a new Text Style, Rename the selected Text Style or Delete the selected Text Style
Font	Set the font family of the Text Style.
Style	Style attributes
Preview	Preview of Text Style applied to the the Preview Text Edit.
Preview Text Edit	
Advance Settings	The advance tab displays a property grid with all of the basic settings and a few more.
CodePage	Sets the character set used to display text.
DrawOutline	
Flag	LeftToRight, Backwards, UpsideDown, etc.
ObliqueAngle	Oblique angle for the text in degrees.
WidthFactor	Value used to stretch text by changing its width.

4.1.3.2.1.9 Dimension Styles

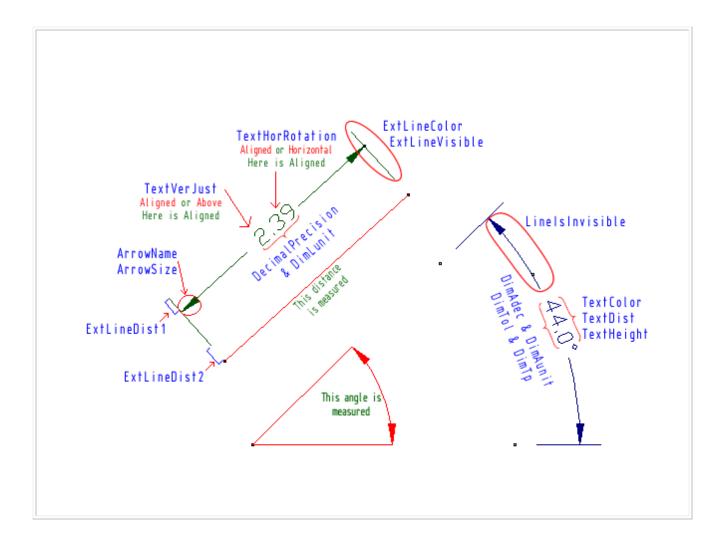


Drawing > Drawing > Dimension Styles Commandline: dimstyles

Explanation

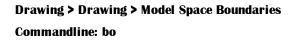
A **Dimension Style** is a group of dimension settings that determines the appearance of a dimension . The active **Dimension Style** determines the appearance of new dimensions created in the drawing. To change the style of an existing dimension, use the StyleName property found on the dimension. When you create a dimension, the current dimension style is associated with that dimension. The dimension retains this dimension style unless you apply a new dimension style to it.

Item	Description
Style Name, Add, Rename, Delete	Create a new Dimension Style , Rename the selected Dimension Style or Delete the Dimension Style .
Preview Pane	Displays the results of the current settings.
Settings	Play with them.



4.1.3.2.1.10 Model Space Boundaries

Model Space Boundaries			×
	Unit of measure 1/100 DU or Printer Unit		
	Layout	(All)	•
	Text Height that you used in the Model Space	2	5 🗘
	Height of the text that you want to print out		4 ‡
	Color	ByLayer	
	Model space boundaries provide guidelines for A rectangle will be placed in the Model Space in	ndicating the bounds	ports.



Explanation

It's a big model space in there. We can, if we are not careful, create a drawing that is so big that it can't be effectively printed or plotted. In order to have some Idea of where the fences are WireCAD can place boundaries in the model space. The boundary is created from the viewport. We use the text height as the terms for our equation. We do this because a drawing is considered readable if we can read the text. If we can't read the text the drawing becomes useless.

Each boundary will be placed on its own layer an named bound_layout_name where layout_name is replaced with the name of the layout.

Item	Description
Layout	Select the layout from which we will create the boundary
Text Height that you used in Model Space	The default is .25 DU or as given in 1/100th of a Drawing Unit: 25.
Height of the text that you want to print	Here we want the printed output height in 1/100th of a printer unit.

Reference 311	

Color	

4.1.3.2.1.11 Groups

	Description	Selectable	Item Count		
e0f79e03-b539-4feb-a7	Two servers	\checkmark	2		
				_	-
					=- -
		Edit Entities Apply Pr	roperties Delete		
Group Properties		Corcentrates pppy r		====	
Group Properties	39-4feb-a783-b3f0b115274b	Lot Linues pppy r			

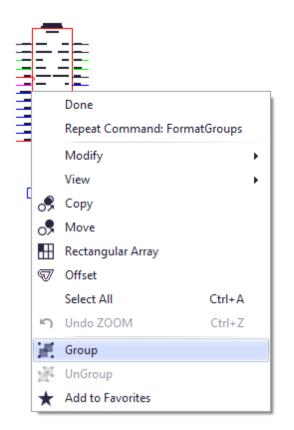
Drawing > Drawing > Groups Commandline: formatgroups

Explanation

New to WireCAD 8 is the ability to create groups of entities in order to better organize your drawings. Groups can be named and described as well as disabled and edited later.

To create a Group select some entities and right-click then click Group

	Reference	313
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Item	Description
Ignore Groups	Disable grouping
Name	The default Group name will be a GUID. You can rename it if you like.
Description	
Selectable	Is the group selectable as a group. If selectable = true then when one object in the group is selected all objects are selected.
Item Count	
Edit Entities	Add or remove entities to the group.
Apply Properties	Send the value of the Group Properties fields to the group.
Delete	Deleting the Group does not delete the entities.
Group Properties	

New from the Group Properties.	
--------------------------------	--

4.1.3.2.1.12 Images

í mage Manager Image Definitions	
WIRECAD logo.jpg	E L D T
	Attach Edit Image Detach
Properties	
Image Path:	
Bind to document	
Choose Transparency Color: No image Interpolation Mode:	PP-2222Re-INU
Place	OK Cancel B Act Bot Bot Bat Act Bat Bat Bat Bat Bat Bat Bat Bat Bat Ba

Drawing > Drawing > Images Commandline: formatimages

Explanation

New to WireCAD 8 is the ability to embed images in the drawing as well as to edit the properties of those images. The document now contains and Images collection from which images may be inherited throughout the drawing. Using the Images collection you may now either link or embed an image.

Item	Description
Images Gallery	
Attach	Browse to an image file to attach to the document.
Edit Image	Display the Image Editor dialog for the selected image

Detach	Remove the selected image if no instances exist in the drawing.
Properties	
Image Path	Path to the linked file
Bind to Document	Check this box to embed the image in the document.
Choose Transparency Color	Sets the transparency color for the selected image
Place	Place an instance of the image in the drawing space.

4.1.3.2.1.13 Image Editor

Edit Im	age – 🗆 🗙
WIR CA	E D
Graycale Sepia Invert Colors Adjustments Brightness Contrast Gamma Red 1.0 Gamma Green 1.0 Gamma Blue	Export Image Rotate Image Image <td< td=""></td<>
	OK Cancel

Double-click an Image

Commandline: none

Explanation

Image editor. You are editing the Image Definition of the document images collection not the instance.

Dialog Options

ltem

Description

Grayscale	
Sepia	
Invert Colors	
Export	
Adjustments	These controls are fairly self explanatory.
Flip	
Rotate	
Colors	
ОК	
Cancel	

4.1.3.2.1.14 Rectangular Array

Rectangular Array	x
Row/Columns:	Spacing:
Rows = : 32. 🗘	Row Spacing: -1 🗘 Column Spacing: 0 🗘 Pick >>
	OK Cancel

Drawing > Drawing > Rectangular Array Commandline: ar

Explanation

Creates multiple copies of objects in a pattern.

With the rectangular array you can create an array defined by a number of rows and columns of copies of the selected object.

First you have to select the objects. Then you have to define number of rows and number of columns of the rectangle, the distance between rows and the distance between columns.

Item	Description
Rows	The number of rows in the array including the source elements.
Columns	The number of columns in the array including the source elements
Row Spacing	Row spacing in DU.
Column Spacing	Column spacing in DU.
Pick >>	Pick the spacing out of the drawing.

4.1.3.2.1.15 Purge

urge	x
Items Not Used in Document(121 items) Items Layers(19 items) Blocks(22 items) DimStyles(1 items) LineTypes(24 items) TextStyles(1 items) Images(0 items) HatchPatterns(54 items)	Collections Collec
	Purge Cancel

Drawing > File > Purge

Commandline: purge

Explanation

Remove unused entities from the drawing.

Item	Description
Collection Tree	The document collections
Collection to Purge	The collections to purge
Purge	Do It!

4.1.3.2.1.16 Inserts Dialog

sert Block					
Block					
Block in Drawing From File	: (Users \Public	:\Documents\Wire	eCAD\WireCAD8\	WireCAD Demo Projec	
ilobal Attributes Mode				Preview:	
Normal	•				
Select all parameters o	n screen				
Select on Screen	on screen	Select on Sa	reen	Select on Screen	
	on screen	Select on Sci Scale	reen	Select on Screen Rotation Angle	
Select on Screen	on screen		reen 0 🛟		•
Select on Screen		Scale		Rotation Angle	
Select on Screen Insertion Point X:	0 🗘	Scale X:	0	Rotation Angle	•

Drawing > CAD Tools > Insert Block into Drawing Commandline: insert

Explanation

Insert blocks in to the drawing. This is the collection of Blocks in the drawing. You may also browse to any .dwg file and insert it into the file.

ltem	Description
Blocks	Select an existing block or browse to a dwg file and add it to the drawing.
Preview	
	the selected block

Insertion Point	
Scale	Pick here or on the drawing.
Rotation	

4.1.3.2.1.17 XREF Manager

Attach	Detach	Reload	Bind	Unload	
Reference N	ame	File Name			

Drawing > CAD Tools > XREF Manager Commandline: xref

Explanation

Manage externally referenced drawings. These are drawings that are visible in the current Model space but maintained in separate files. They are linked here until action is taken to bind them to the current drawing.

Dialog Options

Item Description

Attach	Browse to the file. After which you will be presented with the standard Insert dialog to position the incoming file on the screen.
	Insert Block Block Block Block C:Users'Public/Documents/WireCAD/WireCADB/WireCAD Demo Project/DRAWINGS'F ··· C:Users'Public/Documents/WireCADB/WireCAD Demo Project/DRAWINGS'F ···
	Global Attributes Mode Preview: Normal • Select all parameters on screen • Select on Screen Select on Screen
	Insertion Point Scale Rotation Angle X: 0 ↓ X: 0 ↓ Y: 0 ↓ Y: 0 ↓ Z: 0 ↓ Z: 0 ↓
Detach	Remove the XREF
Reload	Get any changes to the XREF file and display them
Bind	Make it a Block in this drawing.
Unload	Get rid of it.

4.1.3.2.2 Advanced Tools Dialogs

The following is a set of dialogs that may be presented while using the advance tools in the drawing environment.

4.1.3.2.2.1 Equipment Library

nd Detail I/O Display Preferences					· · · ·	
id:				Find		
) Local			Upload To Community	Find All		
Community Server		Test Connection	Download From Community	Community is online with 82025 devices	0000 1234567	
Image	ManufacturerName	EquipmentName	EquipmentDescription	Equipment Type (SysName Prefix)	Sysname	
right-click to add image						
right-dick to add image	0000	1234567	asdf	SRVR		
right-click to add image	360 SYSTEMS	FRED	Automatically added from drawing. Please edit.	MAT	Alias	
I right-dick to add image	360 SYSTEMS	Image Server 2K	Mpeg 2 Video Server	SRVR	Location	
right-dick to add image	360 SYSTEMS	Imager Server	SERVER	SERVER	Loouton	
right-click to add image	360 SYSTEMS	IMAGESVR_v1	SERVER	SERVER		
III right-dick to add image	360 SYSTEMS	Instant Replay	Audio Sampler	IR		
right-dick to add image	360 SYSTEMS	Router	Router	RTR	Plan O NW	
right-dick to add image	360SYSTEMS	DL-810	HD/SD Serial Digital Legalizer	SDL	Display As:	
iii right-dick to add image	3COMM	2928-SFP	24-PORT 4-SFP	SW		
right-dick to add image	3COMM	3C16702A	EQUIP	EQUIP	Functional I/O	
right-dick to add image	3COMM	MADIINPUT	MADI	BOX	Conceptual I/O (low)	
right-dick to add image	3COMM	SSII3300	NETSW	NETSW	Conceptual 1/0 (High) O Front Panel (File Merge)	
right-dick to add image	3COMM	SSII3300_v1	NETSW	NETSW	O Front Panel (From Dims)	
right-dick to add image	3COMM	XP 490	Router	RTR	O Plan View (File Merge)	
right-dick to add image	ACCOM	Attache	Digital Disk Recorder	DDR	Plan View (From Dims)	
right-dick to add image	ACCOM	Axial 3000	Editing Controller	EDITOR		
right-dick to add image	ACCOM	DVeous	Digital Video Effects	DVE	Add Manufacturer to Librar	
right-dick to add image	ACTIVE STORAGE	ActiveRAID	ACTIVE STORAGE	RAID	Add Equipment to Library	
right-dick to add image	ADC	PP12232RS-MVJ	2X32 AES Patchbay 2U	DAJ	Delete Equipment From Libra	
right-dick to add image	ADC	PP12232RS-MVJ-DV	2X32 SDI Patchbay 2U	DVJ	Add to Drawing	
right-dick to add image	ADC	PP1224HD	HD VIDEO PATCHBAY	VPB	Add to Drawing	
ight-click to add image	ADC	PPI1224H	2X24 VIDEO	HDP8		
ight-click to add image	ADC	PPI1224N	2x24 Video Patchbay 1U	VPB	Add to Project Database Onl (Assign SysName)	
ight-click to add image	ADC	PPI2232RS-MVJ	2x24 2RU Patch Panel	Patch Panel	(~ssign sysivalle)	
ight-click to add image	ADC	RGB	RGB PatchBay	Patch		
iii right-dick to add image	ADC	TRP-2	TRIAX PATCH PANEL	PP	*	
Community Rating System					Attach Document	
<	Record(s) 1 to 1583 of 1583	> Results Par	pe Size 10	Rate This		

Database > Equipment Library Drawing > Advanced Tools > Equipment Library Commandline: le Several Others

Explanation

The WireCAD **Equipment Library** is where you will spend a fair amount of time as you define equipment that you will use in your designs. The Equipment Library is a presentation of the global Manufacturers table and its hierarchy. The Equipment Library contains no CAD blocks just equipment definitions. These equipment definitions describe a peice of equipment its make, model, and IO.

This is also where we come to create CAD blocks in our drawings. There are many settings here that let you customize appearance.

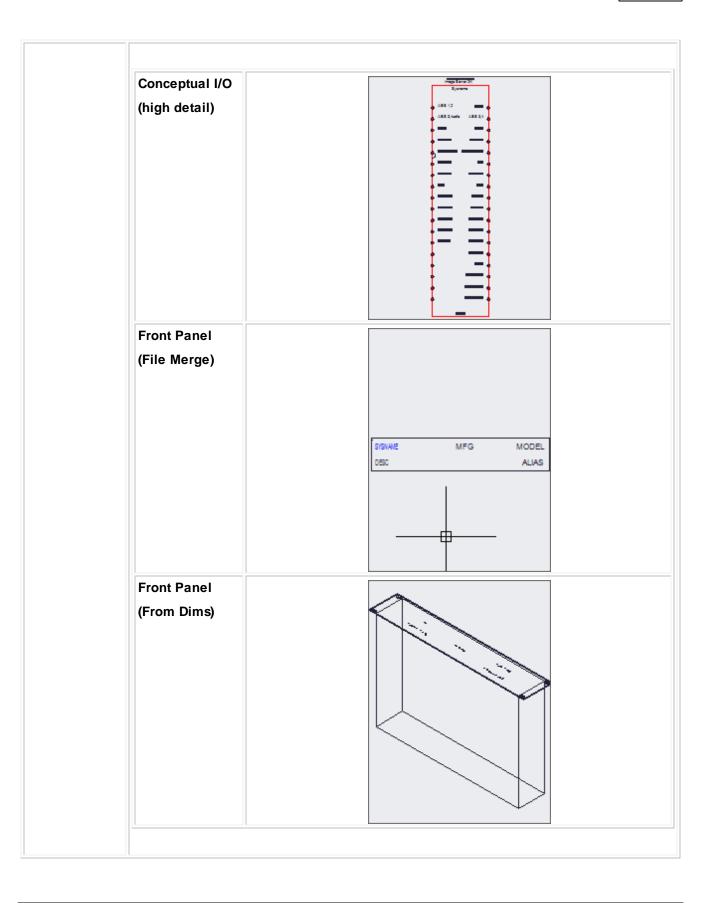
The interface is tabbed. The **[Find]** tab sets the current item. The current item will be enumerated in the **[Detail]** and **[I/O]** tabs. This topic covers the right-hand column of controls that is visible from all tabs

Dialog Options

ltem

Description

Big Preview		e
Refresh	• 6	e
Preview		
Preview	Displays the current	ntly selected equipment definition based on the Display As: setting.
Display As:		
	Setting	Preview
	Functional I/O	
	Conceptual I/O	380 SYSTEMS Image Server 2K
		Sysname
		AES 1,2 AES
		AES AUD
		AUD ETHERNET
		CNTL VGA
		Allas
		Location



	Plan View (File Merge)					
	Plan View (From Dims)	Not yet implemented.				
Add Manufacturer	Shows the Add Manufacturer dialog.					
Add Equipment	Shows the Add Equipment Wizard.					
Delete Equipment	Deletes the selected record.					
Add to Drawing	Add the selected item to the drawing based on the current preview.					
Add to Project Database Only (Assign SysName)	Shows the SysName Assignment dialog.					
Attach	Attach any docume	ent to the current record. This is useful for storing cut sheet or specification				
Document	documents with the	equipment definition.				
Exit						

nd:				Find	
) Local			Upload To Community	Find All	
Community Server		Download From Community	Community is online with 82025 device		
Image	ManufacturerName	EquipmentName	EquipmentDescription	Equipment Type (SysName Prefix)	
right-click to add image					
right-dick to add image	0000	1234567	asdf	SRVR	
In the second	360 SYSTEMS	FRED	Automatically added from drawing. Please edit.	MAT	
I right-click to add image	360 SYSTEMS	Image Server 2K	Mpeg 2 Video Server	SRVR	
In right-click to add image	360 SYSTEMS	Imager Server	SERVER	SERVER	
In the second	360 SYSTEMS	IMAGESVR_v1	SERVER	SERVER	
If right-click to add image	360 SYSTEMS	Instant Replay	Audio Sampler	IR	
In the second	360 SYSTEMS	Router	Router	RTR	
In the second	360SYSTEMS	DL-810	HD/SD Serial Digital Legalizer	SDL	
In the second	3COMM	2928-SFP	24-PORT 4-SFP	SW	
If the second	3COMM	3C16702A	EQUIP	EQUIP	
In the second	3COMM	MADIINPUT	MADI	BOX	
∃ right-dick to add image	3COMM	SSII3300	NETSW	NETSW	
∃ right-dick to add image	3COMM	SSII3300_v1	NETSW	NETSW	
It right-dick to add image	3COMM	XP 490	Router	RTR	
It right-dick to add image	ACCOM	Attache	Digital Disk Recorder	DDR	
right-dick to add image	ACCOM	Axial 3000	Editing Controller	EDITOR	
Image: Instant in the image is a standard in	ACCOM	DVeous	Digital Video Effects	DVE	
∃ right-dick to add image	ACTIVE STORAGE	ActiveRAID	ACTIVE STORAGE	RAID	
∃ right-dick to add image	ADC	PP12232RS-MVJ	2X32 AES Patchbay 2U	DAJ	
∃ right-dick to add image	ADC	PP12232RS-MVJ-DV	2X32 SDI Patchbay 2U	DVJ	
If ight-dick to add image If im	ADC	PP1224HD	HD VIDEO PATCHBAY	VPB	
∃ right-dick to add image	ADC	PPI1224H	2X24 VIDEO	HDPB	
∃ right-dick to add image	ADC	PPI1224N	2x24 Video Patchbay 1U	VPB	
∃ right-dick to add image	ADC	PPI2232RS-MVJ	2x24 2RU Patch Panel	Patch Panel	
It right-click to add image	ADC	RGB	RGB PatchBay	Patch	
right-dick to add image	ADC	TRP-2	TRIAX PATCH PANEL	PP	
 Community Rating System 					
<	Record(s) 1 to 1583 of 1583	> Result		10 🌲 Rate This	

Database > Equipment Library Drawing > Advanced Tools > Equipment Library [Find] Commandline: le Several Others

Explanation

The **[Find]** tab allows you to search the local global database as well as the **Community Server**. When searching locally all records are returned by default. When searching the **Community Server** you will need to enter a search term. The results will be returned in pages based on your **Results Page Size** value.

Search Term Hints

When searching the databases for items less is more. You want to enter a value than can be found in a single field. For example: say we are looking for a Sony DVW A-500. The following is a list of terms and their results: Search: sony - Result: All Sony products and any products from other manufacturers that have Sony in their description fields.

Search: DVW - Result: All products with DVW somewhere in the name or description.

Search: SONY DVW - Result: None. There are no products with the manufacturer name and the product name in a single field.

Find Tab Options

Item	Description					
Find	Enter the search term here.					
Find button	Do the search					
Find All button	Clear and find all records. (Local only)					
Local / Community Server	Switch between your local database and the Community					
Test Connection button	Test your connection to the Community. If this fails you may need to open your firewall to community.wirecad.com port: 1433					
Download From Community	Before any edits can be made to the device you will need to download it to your local database.					
Upload to Community	You can upload manually by clicking this button					
Image						
Manufacturer Name	Database fields associated with the current recordset					
Equipment Name						

Equipment Description	
Equipment Type	
Community Rating System	The Community Server is completely open. All device definitions have been created by your peers. If something is wildly inaccurate then post your opinion. Conversely if something is wildly brilliant then do the same.
Results Paging	You can navigate the page results with these controls.

Find Detail I/O Display Preferences	
EquipmentName	Image Server 2K
Abbreviation	0
Front Panel File	%BLOCKS%\2D_ELEVATIONS\2U_2D_EL.DWG ····
Plan View File	%BLOCKS%\plan view\av lv\pushbutton station.dwg ····
Accessory Of	[EditValue is null]
Equipment Description	Mpeg 2 Video Server
Manufacturer ID	360 SYST
Equipment Type (SysName Prefix)	SRVR
Equipment Weight	2.25
Equipment Weight Unit of Measure (UOM)	Pounds
Equipment Height	2
Equipment Height UOM	Rack Units(RU)
Equipment Width	19
Equipment Width UOM	Inches 🔹
Equipment Depth	12
Equipment Depth UOM	Inches
Equipment Power	50
Equipment Power UOM	Watts
Equipment Voltage	120
Equipment Voltage UOM	VAC
EquipmentVendor1	a
EquipmentVendor2	b
EquipmentCost1	20.01
EquipmentCost2	30.98
Image	right-dick to add image
Image File Path	%IMAGES%\imageserver200x70.gif ····
Document File Path	
DWG Icon File Path	%ICONS%\dwg_icon_pc_workstation.dwg ····
Sku	
Approved	
Category	
Industry Sectors	
Synonyms	
DisplayParams	$Body Color \sim 0; Body Pen Width \sim 0; Body Width \sim 500; Bottom Bulge Factor \sim 15; Creation Mode \sim Functional Block; Descriptor Locations \sim SysName \ldots \\ Output Descriptor Descrip$
Some Custom Field	
EquipmentUser2	
EquipmentUser3	
EquipmentUser4	
FKManufacturer	c8808081-308b-4cc1-b965-537dba376b9d
EquipmentGUID	dc46b475-acb0-46d4-8ef1-1a61e8ef1b71
ModifiedOn	7/1/2015

Database > Equipment Library

Drawing > Advanced Tools > Equipment Library [Detail] Commandline: le Several Others

Explanation

This is the detail page for the currently selection record. The fields are self explanatory.

NOTE: Be sure to save your changes if you edit this grid manually by clicking File>Save.

Cable End) Connector Signal Type		Disp	5	Order	IsSelected	Select All	Name	Signal	(Cable End) Connector	Display Order	Pin T	IsSelected	Order		
e End) ector	le En	der play C		Clear		* Type	le En	lay o	Type	ected	7				
		ä	- -	rder				All Inputs All Outputs		ĕ	- -	rder		L.	
• •	AES 1,2	AES 1,2	MXLR	5 No	ormal	0	\checkmark	Select By Signal Type	▶ ⊞ AES	AES	FXLR	7	Normal	\checkmark	
	AES 3,	AES	MXLR	10 No	ormal	1	\checkmark	AES	· AES 3,4	AES	FXLR	12	Normal	\checkmark	
	AUD	AUD	MXLR	4 No	ormal	2	\checkmark	AES 1,2	· AUD	AUD	FXLR	5	Normal	\checkmark	
	AUD-01	AUD	MXLR	7 No	ormal	3	\checkmark	AUD	· AUD-01	AUD	FXLR	8	Normal	\checkmark	
	GENLOCK	VID	BNC	6 Los	ор	4	\checkmark	CNTL	ETHERNET	ETHERNET	RJ45	6	Normal	\checkmark	
	HD SDI	HD SDI	RJ45	12 No	ormal	5	\checkmark		н кв	DATA	PS-2	15	Normal	\checkmark	
	RS-422	CNTL	9DMale	8 No	ormal	6	\checkmark	HD SDI	MOUSE	DATA	PS-2	9	Normal	\checkmark	
	SDI	SDI	BNC	11 No	ormal	7	\checkmark	SDI	🗉 SDI	SDI	BNC	4	Normal	\checkmark	
	SDI-001	SDI	BNC	0 No	ormal	8	\checkmark	VID	SDI.01	SDI	BNC	17	Normal	\checkmark	
	SDI-002	SDI	BNC	1 No	ormal	9	\checkmark	DATA	SDI.03	SDI	BNC	14	Normal	\checkmark	
	SDI-003	SDI	BNC	2 No	ormal	10	\checkmark	ETHERNET	SDI-001	SDI	BNC	0	Normal	\checkmark	
	SDI-004	SDI	BNC	3 No	ormal	11	\checkmark	VGA	SDI-002	SDI	BNC	1	Normal	\checkmark	
	VIDEO	VID	BNC	9 No	ormal	12	\checkmark		SDI-003	SDI	BNC	2	Normal	\checkmark	
								Reorder Copy Reorder	SDI-004	SDI	BNC	3	Normal	\checkmark	
								$\begin{array}{c} \uparrow \\ \uparrow \\ \hline \\$	🙂 VGA	VGA	15D HD	16	Normal	\checkmark	
									VIDEO.01	VID	BNC	10	Normal	\checkmark	
									VIDEO.02	VID	BNC	13	Normal	\checkmark	
									VIDEO.03	VID	BNC	11	Normal	\checkmark	
								Add/Delete Ports Add Ports							
								Delete Selected Ports	5						
								Auto Preview Refresh]						
								Display Order							

Database > Equipment Library [1/0] Drawing > Advanced Tools > Equipment Library [1/0] Commandline: le Several Others

Explanation

This is the Inputs and Outputs page. It represents the I/O of the currently selected device. Inputs are displayed in the left-hand grid and outputs are displayed in the right-hand grid. This is by convention only. You are free to place inputs on the right-hand side and vice versa. Each port record consists of a Name, Type, Connector and a Pin Type. Selected records will be included in the preview of any Function I/O and Concept blocks that you create.

I/O Tab Options

Item	Description
Inputs Grid	The I/O grids.
Outputs Grid	NOTE: Be sure to save your changes if you edit these grids manually by clicking File>Save .

Select All					
Clear Selection	Manipulate the collection				
All Inputs	Manipulate the selection.				
All Outputs					
Select by Signal	Ten buttons in this frame will populate with the first ten signal types from the I/O				
Туре	records. Clicking the button will select all records in both grids of that signal type				
Reorder	Move selection up/down.				
Сору	Copy side-to-side.				
Add Ports	Show the Add Ports dialog अभी.				
Delete Ports	Delete the selected ports. You will be prompted for each grid. No save is necessary				
Refresh	Refresh the preview.				
Display Order	Set and sort by the Display Order column. This allows you to rearrange the lists and be able to return later to your work.				

Database > Equipment Library Drawing > Advanced Tools > Equipment Library Commandline: le Several Others

Explanation

This is where we determine the look of the block we are about to add to the drawing.

There are four tabs in this view that allow you to customize the appearance of the block you are about to create.

- 1. Stock Shapes 339
- 2. Mappable Terminals 339
- 3. User Defined Shapes 339
- 4. Mechanical Forms 340

Understanding the Settings Mechanism

Settings store the appearance and display mode of the Equipment Library. These settings determine the look of the created block. You can tell which settings were used to create the block by looking at the Equipoment Library status bar:

CDA5 has 1 inputs and 4 outputs. Preview created from Project settings.

WireCAD stores the settings used to create blocks in three different locations:

- 1. **Device** settings. If you create a block in a drawing we store the settings used to make the block with the device definition in the **Equpment Library**. These settings have priority.
- 2. **Project** settings. If you like the display of a block you can click the:

Set Current Display Properties as Project Default Reset Project Default Reset Device Settings

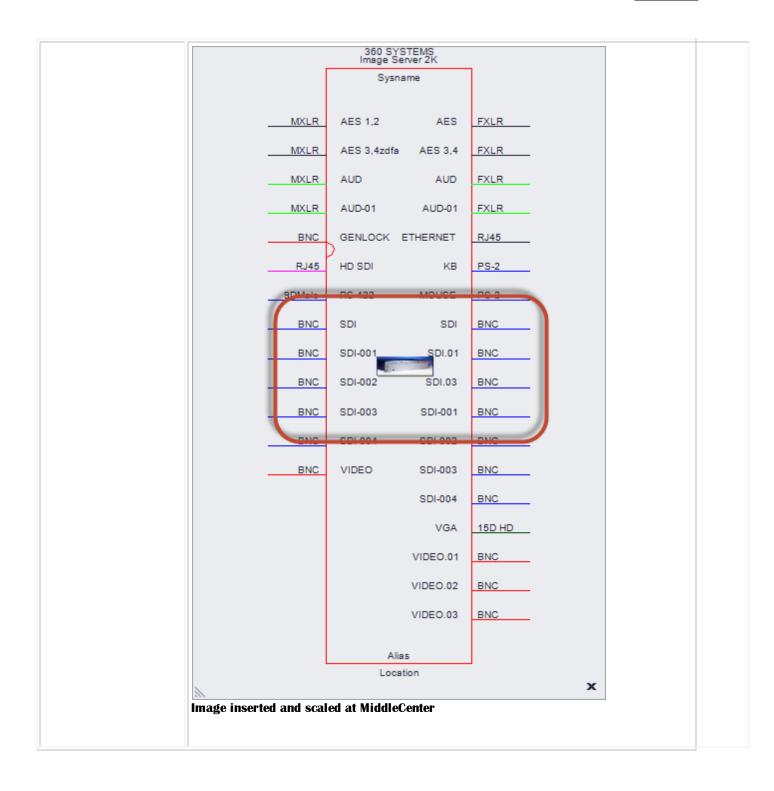
Doing so will set the current display settings as the **Project** default. All devices that do not currently have stored settings will then use the **Project** defaults.

3. Default settings. When no other settings are found we use the defaults.

Several controls are common to all tabs. We will go into those first.

Common Controls Options

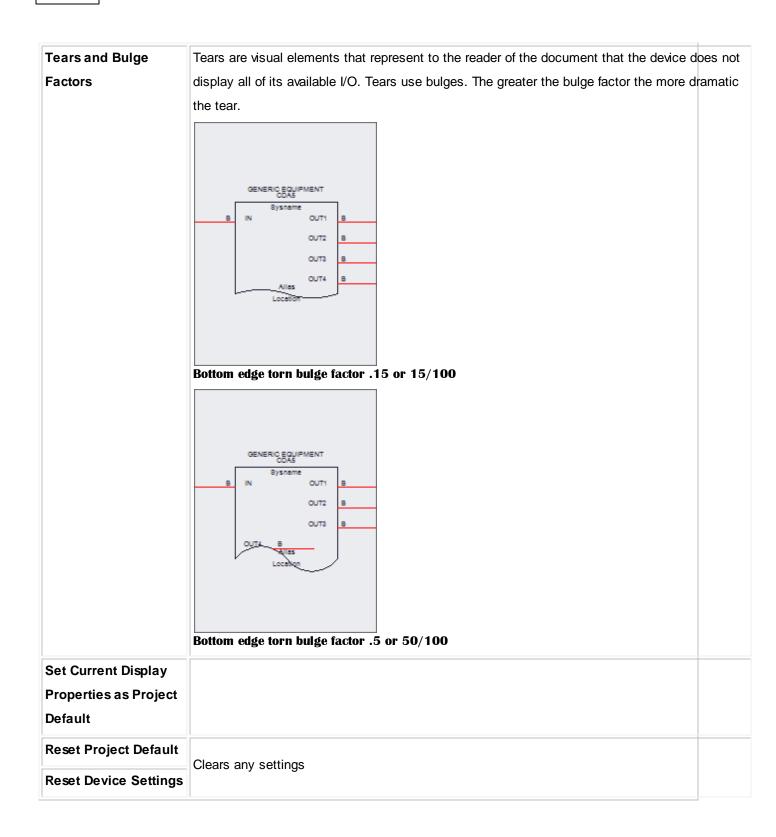
Item	Description					
Body Color	Sets the color of Functional I/O and Concept block bodies.					
Creation Mode	Set by the UI.					
Descriptor Locations	Shows the Descriptor Locations Map					
Image Display Mode Image Position						
Image Scale Factor	 None - no image or cad block is inserted in the created block. Image - insert the image that is pointed to in the Image File Path of the Details tab for device. DWGlcone - insert the DWG lcon in the DWG lcon File Path of the Details tab for this 					



Merge and Center								
		CUSTOM PANEL BSP		CUSTOM P BSP				
	B	Sysname AES1 RTR I AES1 RTR I	B Merg	AES1 RT				
	B	AES1 RTR ØAES1 RTR O			RO <u>B</u>			
	B	AES2 RTR I AES2 RTR I	B Cente		RI B			
	B	AES2 RTR ORES2 RTR O	в	AES2.RT	в			
	Elco	AUD IN-01 AUD IN-01	Elco	Elco AUD IN-	01 Elco			
	Elco	AUD IN-02 AUD IN-02	Elco	Elco AUD IN-	02 Elco			
	Elco	AUD IN-03 AUD IN-03	Elco	Elco AUD IN-	03 Elco			
	Elco	AUD IN-04 AUD IN-04	Elco	Elco AUD IN-	04 Elco			
	This funct	ion will only merg	e identical	port names				
Shape Mode								
-	Read Onl	У						
Shape Path								
Stock Shape Number	Set by the	Set by the Stock Shapes tab selection						
Text Height	The heigh	t of all generated t	ext.					
Vertical Padding		D		Body	Width	-		
Vertical Pin Spacing		ddir		204)				
Pin Width		Б				Pin Wi	dth -	
Body Width	Spacing	Vertical Padding		360 SY Image S	YSTEMS Server 2K			
	C	•		Sys	Name			
	Vertical Pi	<u> </u>	MXLR	AES 1,2	AES	FXLR		
			MXLR	AES	AES 3,4	FXLR		
			MXLR	AUD	AUD	FXLR		
Body Pen Width	The thick	ness of the line that	at represent	s the block body				

Reference
Reference

Vertically Center Pins	GENERIC EQUIPMENT CDAS B N OUT1 B OUT2 B OUT3 B OUT3 B Location CDAS GENERIC EQUIPMENT CDAS B Sysname OUT1 B N OUT2 B N OUT2 B N OUT3 B Location
Nudge Positions	Use to nudge the various text around.



Stock Shapes Options

Here you choose from 18 stock shapes. We will not enumerate them here. Try clicking on them to see what they do.

Mappable Terminals Options

Here you can map the selected I/O on to terminals. Terminals are one or two port inline devices. If you select more that one record in the I/O tables we will continue to add terminals to accomodate the selection. If you select a terminal that has only an input port then any selected output records will be ignored.

Item	Description
Example showing	
multiple I/O selected	
and mapped on to a	A-01 B-01
terminal that	Sysname B-02
represents a full	B Sysname
normal jack	
	A-04 Sysname B-04
	A-05 Sysname B-05
	B-06 B-06
	B-07
	B-08 B-08
	B Sysname B B B B B B B B B B B B B B B B B B B
	B Sysname D 40

User Defined Shapes Options

Any CAD file can be used as a User Defined Shape. It jsut needs to be placed in the Shape Files folder:

%BLOCKS%\Shapes Files

The **Display Properties** with then scale and stretch the object while applying port data.

Item	Description
User Defined Shape	400
with four ports	ADC PP12232RS-MVJ-DV
applied.	Sysname
	A-01 B-02 A-02 B-03
	A-03 Alias Location

Mechanical Forms Options

Mechinal Forms are hardcoded objects that get their dimensional data from the device definition and use it to render objects

Item	Description
Rack Enclosure	
Rack Tray	
Cube	Select a form. Only available when Front Panel (from Dims) is selected.
Half Rack Left	
Half Rack Right	

For feed-through connections or bulk Consider naming patchbay ports A-#	head panels set the input and out	out Name the same		
It doesn't matter which side you place For bi-directional signals such as Ethe When selecting the connector gender	e a port on. You can always move met or RS-422 consider your docu	ows it later. ument flow when determinin		se ports.
Add to Which List:			Add Multiples:	
	Example:		Add Multiple Ports	
Inputs (Left Side)	Port Name:	enter port name	Count (Appends #):	1 🖕
Outputs (Right Side)	Connector (Cable End):	select connector	✓ Starting @:	1 🖕
🔘 Both	Signal Type:	select signal type	✓ ··· Leading Zeros:	00
	Input Pin Style:	Normal	•	
	Output Pin Style:	Normal	 Finally Append Char 	acters

Database > Equipment Library [I/O] [Add Ports]

Drawing > Advanced Tools > Equipment Library [I/0] [Add Ports]

Commandline: le

Several Others

Explanation

This is the Port Adder dialog. With it you add a single record, two records, or multiple records to the I/O grids.

Here are some things to consider when naming your ports:

- 1. For feed-through connections or bulkhead panels set the input and output Name the same.
- 2. Consider naming patchbay ports A-# and B-# for the top and bottom rows.
- 3. It doesn't matter which side you place a port on. You can always move it later.
- 4. For bi-directional signals such as Ethernet or RS-422 consider your document flow when determining the list to which you will add these ports.
- 5. When selecting the connector gender always consider that WireCAD needs the CABLE END of the connection, not the chassis side.

Item	Description
Add to Which List	
Port Name	Enter the port name here.

Connector (Cable End)	From the global Connectors table.
Signal Type	From the global Signal Types table.
Input Pin Style	Straight pin (Normal) or looped (two connection points).
Output Pin Style	Straight pin (Normal) or bridged (two connection points).
Add Multiples	If checked a record will be created for each Count . The number will be appended to the Port Name info and formatted based on the Leading Zeros format.
Finally Append Characters	Useful if you want to add characters after the multiple count number has been appended. See the example below for more info.

Examples

Example	Result			
Add a single port to the Inputs table.	Name Signal Type Signal Type Port 1 VID BNC	Consider naming patchbay ports A It doesn't matter which side you pl For bi-directional signals such as El	Select All Image: Clear Clear Clear All Inputs All Outputs Select By Signal Type VID	
		Add to Which List: (a) Inputs (Left Side) (b) Outputs (Right Side) (c) Both	Example: Port 1 Port Name: Port 1 Connector (Cable End): BNC Signal Type: VID Input Pin Style: Normal Output Pin Style: Normal Add Ports and Close Close Apply	Add Multiples: Add Multiple Ports Count (Appends #): 1 ‡ Starting @: 1 ‡ Leading Zeros: 00 Finally Append Characters

Add a single port to the Inputs and	Name	Signal Type	(Cable End) Connector	Display Order	Pin Type	Order	IsSelected	Select All Clear All Inputs All Outputs	Name	Signal Type	(Cable End) Connector	Display Orde	Pin Type	IsSelected	Order
the inputs and	🕨 🖻 Port 1		BNC		Normal	_	•	Select By Signal Type	▶ 🗉 Port 2	VID	BNC		Normal		
Outputs list at the	Port 2	VID	BNC		Normal	ts	1	VID				x			
same time.					Consider It doesn't For bi-din	naming patchl t matter which ectional signal	oay ports A-# ar side you place a s such as Ethern	ad panels set the input and output Nam d B-# for the top and bottom rows port on. You can always move it later. et or RS-422 consider your document ff ways consider that WireCAD needs the	Iow when determining t			arts.			
						hich List: s (Left Side) uts (Right Side)	Example: Port 2 Port Name: Port 2		× Count	(Appends #):	1 ÷			
					@ Both		,	Connector (Cable End): ENC Signal Type: VID Input Pin Style: Normal Output Pin Style: Normal		·) Zeros: 00				
								Add Ports and Close Close	Apply)					
Add 10 ports to each	Name	Signal Ty	(Cable End) Connector	Display Or	Pin Type	Order	IsSelected	Select All Clear	Name	Signal Ty	(Cable End) Connector	Display Order	Pin Type	IsSelected	Order
grid appending a por	t	-01 VID	9 g	Order	Normal		۵. ۱	All Inputs All Outputs Select By Signal Type	s PORT-01	* Type	9 g	Order	Normal	ă.	
number to each	PORT PORT	-01 VID -02 VID -03 VID -04 VID	BNC BNC BNC BNC		Normal Normal Normal		1	VID	PORT-02 PORT-03		BNC BNC BNC		Normal		
record.	PORT PORT	-05 VID -06 VID	BNC BNC		Normal Normal	Add Port							x tal		
	PORT PORT	-07 VID -08 VID -09 VID	BNC BNC BNC		Normal Normal Normal	Consider It doesn't	naming patchba matter which si	ions or buikhead panels set the input a y ports A-# and B-# for the top and bo de you place a port on. You can always uch as Ethernet or RS-422 consider you	ttom rows move it later.		list to which you wi	ll add these ports.	hal hal hal		
	PORT	-10 VID	BNC		Normal		ecting the conne	ctor gender always consider that Wired				sis side.			
					e		s (Left Side) Its (Right Side)	Example: PORT-01 Port Name: Connector (Cable E Signal Type:	PORT-	•	Add Multip Count (Apper Starting @: Leading Zeros	nds #):	10 ‡ 1 ‡		
								Input Pin Style: Output Pin Style:	Normal			end Characters			
								Add Ports and Cl		Apply					

low let's create the 8	Name	Sigr	S C	Dis	Pin	Order	IsSe		Select All	Name
eft line inputs of a	8	Signal Type	(Cable End) Connector	Display Order	Pin Type	<u>е</u>	IsSelected		Clear	6
		fpe	or nd)	Orde			đ	All Input	s All Outputs	
tereo mixer. We will			104.0	-				Select By 9	Signal Type	
se the [Finally	LINE-01-LEFT LINE-02-LEFT	AUD	MXLR MXLR		Normal	0		beleet by t	AUD	
	E LINE-02-LEFT	AUD	MXLR	_	Normal	2				
ppend Characters]	EINE-03-LEFT	AUD	MXLR		Normal	3			VID	
eld to append the	EINE-05-LEFT	AUD	MXLR	_	Normal	4		_		
	E LINE-06-LEFT	AUD	MXLR		Normal	5				
naracters -LEFT	E LINE-07-LEFT	AUD	MXLR		Normal	6		-		
fter the number is	▶ ⊡ LINE-08-LEFT	AUD	MXLR		Normal	7				
	a Add Port									1
opended to the Port	Tips									
ppended to the Fort	For feed-	through co	nnections or b	ulkhead pan	els set the inpu	it and output N	ame the same	2		
		-			els set the inpu for the top and		ame the same	2		
	Consider It doesn't	naming pat t matter wh	chbay ports A ich side you pl	-# and B-# lace a port o	for the top and n. You can alwa	l bottom rows ays move it late	er.			
	Consider It doesn't For bi-dire	naming pat t matter wh ectional sigr	chbay ports A iich side you pl nals such as E	-# and B-# lace a port o thernet or R	for the top and n. You can alwa S-422 consider	l bottom rows ays move it late your document	er. t flow when de	etermining the list	t to which you will add the:	se ports.
	Consider It doesn't For bi-dire	naming pat t matter wh ectional sigr	chbay ports A iich side you pl nals such as E	-# and B-# lace a port o thernet or R	for the top and n. You can alwa S-422 consider	l bottom rows ays move it late your document	er. t flow when de	etermining the list	t to which you will add the: on, not the chassis side.	se ports.
	Consider It doesn't For bi-dir When sel	naming pat t matter wh ectional sign ecting the c	chbay ports A iich side you pl nals such as E	-# and B-# lace a port o thernet or R	for the top and n. You can alwa S-422 consider	l bottom rows ays move it late your document	er. t flow when de	etermining the list	on, not the chassis side.	se ports.
-	Consider It doesn't For bi-dire	naming pat t matter wh ectional sign ecting the c	chbay ports A iich side you pl nals such as E	-# and B-# lace a port o thernet or R der always o	for the top and n. You can alwa S-422 consider	l bottom rows ays move it late your documeni ireCAD needs t	er. t flow when de	etermining the list	Add Multiples:	se ports.
-	Consider It doesn't For bi-dird When sel	naming pat t matter wh ectional sign ecting the o hich List:	ichbay ports A iich side you pl nals such as E connector gen	-# and B-# lace a port o thernet or R der always o	for the top and n. You can alwa S-422 consider consider that W	l bottom rows ays move it late your documeni ireCAD needs t	er. t flow when de	etermining the list	on, not the chassis side.	
-	Consider It doesn't For bi-dird When sel Add to W	naming pat t matter wh ectional sigr ecting the c hich List: s (Left Side	tchbay ports A ich side you pl nals such as E connector gen	L-# and B-# lace a port o thernet or R der always c	for the top and n. You can alwa S-422 consider consider that W	l bottom rows ays move it late your documeni ireCAD needs t	er. t flow when de he CABLE ENI	etermining the list	Add Multiples:	
-	Consider It doesn't For bi-dird When sel Add to W Input	naming pat t matter wh ectional sign ecting the o hich List:	tchbay ports A ich side you pl nals such as E connector gen	-# and B-# lace a port o thernet or R der always o	for the top and n. You can alw S-422 consider consider that W	I bottom rows ays move it late your document ireCAD needs t D1-LEFT	er. t flow when de he CABLE ENI	etermining the list	Add Multiples:	8 🛊
-	Consider It doesn't For bi-dird When sel Add to W	naming pat t matter wh ectional sigr ecting the c hich List: s (Left Side	tchbay ports A ich side you pl nals such as E connector gen	L-# and B-# lace a port o thernet or R der always o F F	for the top and n. You can alw S-422 consider consider that W Example: LINE-(Port Name:	I bottom rows ays move it late your document ireCAD needs t D1-LEFT	er. t flow when de he CABLE ENI	etermining the list D of the connection	Add Multiples: Add Multiples: Add Multiple Ports Count (Appends #):	8 🛊
-	Consider It doesn't For bi-dird When sel Add to W Input	naming pat t matter wh ectional sigr ecting the c hich List: s (Left Side	tchbay ports A ich side you pl nals such as E connector gen	L-# and B-# lace a port o thernet or R der always o E F C S	for the top and n. You can alw S-422 consider consider that W Example: LINE-(Port Name: Connector (Cab	I bottom rows ays move it late your documeni ireCAD needs t D1-LEFT UINE- le End): MXLR AUD	er. t flow when de the CABLE END	etermining the list D of the connection	Add Multiples: Add Multiples: Add Multiple Ports Count (Appends #): Starting @:	8 ‡ 1 ‡
-	Consider It doesn't For bi-dird When sel Add to W Input	naming pat t matter wh ectional sigr ecting the c hich List: s (Left Side	tchbay ports A ich side you pl nals such as E connector gen	# and B-# lace a port o thernet or R der always c E F C S I I	for the top and n. You can alw: S-422 consider consider that W Example: LINE-C Port Name: Connector (Cab Signal Type: input Pin Style:	I bottom rows ays move it late your documeni ireCAD needs t D1-LEFT LINE- le End): MXLR AUD Norm	er. t flow when de he CABLE END	etermining the list D of the connection X X	Add Multiples: Add Multiples: Add Multiple Ports Count (Appends #): Starting @:	8 ↓ 1 ↓ 00
	Consider It doesn't For bi-dird When sel Add to W Input	naming pat t matter wh ectional sigr ecting the c hich List: s (Left Side	tchbay ports A ich side you pl nals such as E connector gen	# and B-# lace a port o thernet or R der always c E F C S I I	for the top and n. You can alw S-422 consider consider that W Example: LINE-C Port Name: Connector (Cab Signal Type:	I bottom rows ays move it late your documeni ireCAD needs t D1-LEFT LINE- le End): MXLR AUD Norm	er. t flow when de he CABLE END	etermining the list D of the connection X X	Add Multiples: Add Multiples: Add Multiple Ports Count (Appends #): Starting @: Leading Zeros: Finally Append Char.	8 ¢ 1 ¢ 00
ame.	Consider It doesn't For bi-dird When sel Add to W Input	naming pat t matter wh ectional sigr ecting the c hich List: s (Left Side	tchbay ports A ich side you pl nals such as E connector gen	# and B-# lace a port o thernet or R der always c E F C S I I	for the top and n. You can alw: S-422 consider consider that W Example: LINE-C Port Name: Connector (Cab Signal Type: input Pin Style:	I bottom rows ays move it late your document ireCAD needs t D1-LEFT LINE AUD Norm e: Norm	er. t flow when de the CABLE END 	etermining the list D of the connection X X	Add Multiples: Add Multiples: Add Multiple Ports Count (Appends #): Starting @: Leading Zeros:	8 ‡ 1 ‡ 00

4.1.3.2.2.2 Rack Builder Tool

Drawing > Advanced Tools > Rack Builder Commandline: rb

Explanation

Automatically generate rack layout. Technically speaking we are populating rack locator grids. They may or may not display an actual rack depending on whether you have assigned a SysName to a rack.

Item	Description
The [Basic] tab allows you to select the locations to include in the Rack Building function. As you select each location, the Systems Involved list will populate.	* Rack Builder Basi Advanced Select Locations For Which to Build Rack Elevations Add Location (*) Systems Involved (*) (*)<!--</td-->
Systems Involved list	Displays a list of all the systems that will be placed in the created drawing.

Item	Description
The [Advanced] tab exposes properties that control the behavior of the utility.	Rack Builder Basic Advanced Chassis Width 19 C Slot Delmiter Insertion Point O,0,0 Attribute Height 25 C View Rule ShowDwginPath Place Text if Item Cannot Be Created Spacing (DU) 24 C V Include Grid Hash Marks
Chassis Width	Sets the width of the chassis in DU
Height in RU	Sets the height of the locator grid in Rack Units (RU = 1.75 inches or 4.445cm)
Slot Count	Sets the number of slots per locator grid. This is used to position items that may not be located at the insertion point of the rack unit.
Slot Delimiter	WireCAD searches the Elevation field for numeric values first then for the slot delimiter if found it parses the the data into two values the elevation and the slot, or in other words how far up in the rack and how far over.
Insertion Point	Where to start the whole process
Attribute Height	If view rule is not ShowDWGInPath, sets the attribute height of the displayed text.
View Rule	 ShowDWGInPath = use the dwg file found in the equipment definition BlockRef (Front Panel File). CreateFromDimensions = use the dimension data from the equipment definition to create a 3D rack block. CreateFromDimensionsIfNotFound = Use dimension data if the BlockRef is not found.
Place Text If Item Cannot Be Created	If the item cannot be created due to lacking data, place a text marker in the drawing at the location.
Include hashes	This will normally be checked unless you are rebuilding a drawing that already has the locator grids.

Item	Description
Spacing DU	Sets the location grid spacing in Drawing Units

4.1.3.2.2.3 Assign Sysname

New Sysname for 360	SYSTEMS-Image Server 2K			[х
Manufacturer	360 SYSTEMS	Ŧ	Equipment Name	Image Server 2K	v
Sysname	SRVR-009			▼ Nev	N
Alias	SRVR-009				
Location	Location	- +	Elevation	Elevation	•
User 1			User2		
User3			User4		
IP Address			Subnet Mask		
Power Consumption	50		Power Consumption Unit	Watts	
Weight	2.25		Weight Unit	Pounds	
Flags		•			
				OK Cancel	
Status					

Drawing > Advanced Tools > Equipment Library [Add to Project Database Only (Assign SysName)] Double-click WireCAD Block Commandline: le

Explanation

This dialog is presented when assigning a SysName. The SysName field is automatically generated based on the project SysName Format and the Next Numbers table.

Item	Description
Manufacturer and Model	Filled automatically in most cases.

SysName	This number is automatically generated based on the project SysName Format and
	the Next Numbers table. WireCAD will always present the next number though you
	do not have to use it. In fact, there are times when you should select the exisitng
	SysName from the dropdown list. For example say you have shown the video ports of
	VTR-01 in one drawing and the audio ports of VTR-01 in another drawing. When you
	assign the first instance you will get VTR-01 as the suggested SysName. The second
	instance will suggest VTR-02. You will then click the dropdown and select VTR-01
	thus ensuring that the two representations of the same device have the same name.
Alias	Friendly, functional, or descriptive name for the device.
Location	Location of the device. For more information see the Locations Grid 453. Clicking the
	[+] button shows the <u>New Locations 295</u> dialog.
Elevation	If numeric then WireCAD assumes RU. If not numeric it does not matter. There is one
	special circumstance where the data will be non-numeric but WireCAD will understand
	how to parse it. That is the situation when we want to locate something in a slot in a
	frame in a rack. We will need to use the form [elevation][slot delimiter][slot]. For
	example let's say that I have a DA that needs to go in slot 5 of a frame located at
	elevation 20 and my project slot delimiter is a dash [-]. I would type into the Elevation
	field 20-5
User Fields	50 characters max. You can define these captions in the Translation Manager -
	Plugins > Translation Manager. Search for SysNameUser in the key field.
IP Address Subnet Mask	Masked to either IPv4 or IPv6 based on the Project Settings dialog.
Power Consumption	Pulled from the global Equipment definition or typed manually here.
Weight	Pulled from the global Equipment definition or typed manually here.
Flags	Sort, query, filter flags. You can define these flags in the Translation Manager -
	Plugins > Translation Manager. Search for SysNameFlagItem in the key field.

4.1.3.2.2.4 Assign Cable Number

D	AJ-024 B-11 AJ-024 ocation	DA-1132-	SRVR-004 BNC VIDEO SRVR-004 Location
CableNo	DA-1132-		New Add Multi-core Cables
CableTypeManu	BELDEN	▼ CableType	1505A 003 ORG 🗸
SignalType	AES	•	
NamedPath	Select a Named Path	▼ Length	0 🔻
Integrator			
User1		User2	
User3		User4	
Sheet	test1.dwg	ReplacedBY	If this cable is to be replaced by another 💌
Pinout			~
Calc time = 00:00	:00.0000007	[OK Cancel

Double-click WireCAD Cable

Commandline: ac

Explanation

This dialog is presented when assigning a Cable number. The **Cable Number** field is automatically generated based on the project **Cable Number Format** and the **Next Numbers** table.

This dialog is show only when the **Verbose Cable Assignment** option is checked on the Advanced Tools ribbon tab.

Dialog Options

Item

Description

CableNo	This number is automatically generated based on the project Cable Number Format and the Next Numbers table. WireCAD will always present the next number though you do not have to use it.
Cable Type Manu	Cable Type Manufacturer.
Cable Type*	Cable Type.
Signal Type*	Signal Type.
Named Path	List of <u>Named Paths</u> [455]. See the documentation on the Named Paths table. Selecting a Named Path will cause the Length field to change.
Length	Manually enter the cable length or select a Named Path.
Integrator	Who is responsible for the installation of this cable.
User Fields	You can define these captions in the Translation Manager - Plugins > Translation Manager . Search for CableUser in the key field.
Sheet	Automatically filled with the current drawing name.
Replaced By	A housekeeping field that you may choose to use.
Pinout	If the Enable Pinouts setting is checked then select the Pinout to apply to this cable.

* changes to these fields may cause the number to recalculate.

4.1.3.2.2.5 SysName Error Check

	rag a column header here to group by that column								
	Hand	le	Sysname	Location	Elevation	Alias	Manufacturer	EquipmentName	DBRef
,									
	Q	Show Me	DAJ-019	Location	Elevation	DAJ-019	ADC	PP12232RS-MVJ	cbf89ba8-7315-4
	Q	Show Me	DAJ-020	Location	Elevation	DAJ-020	ADC	PP12232RS-MVJ	228ad612-f192-4
	Q	Show Me	DAJ-021	Location	Elevation	DAJ-021	ADC	PP12232RS-MVJ	b88aa704-476f-4
	Q	Show Me	DAJ-023	Location	Elevation	DAJ-023	ADC	PP12232RS-MVJ	b7ebcbe6-0c8e-4
	Q	Show Me	DAJ-024	Location	Elevation	DAJ-024	ADC	PP12232RS-MVJ	501449c2-e56c-4
	Q	Show Me	SysName	Location		Alias	ManufacturerName	EquipmentName	
	Q	Show Me	SRVR-004	Location	**Elevation**	SRVR-004	360 SYSTEMS	Image Server 2K	802a7ec4-e516-4
	Q	Show Me	SysName	Location		Alias	360 SYSTEMS	Image Server 2K	
	Q	Show Me	SysName	Location		Alias	360 SYSTEMS	Image Server 2K	
	Q	Show Me	SysName	Location		Alias	360 SYSTEMS	Image Server 2K	

Drawing > Advanced Tools > Drawing SysName Error Check Commandline: drawingsysnameerrorcheck

Explanation

Check the drawing against the database. Checks the following:

- Retrieves all equipment from the drawing.
- Checks the drawing SysName against the database.
- If matched the record is shown normally. If orphaned or not assigned the background color will be changed.

Item Description	
Show Me	Zooms to the selected entity
Check for Errors	Scans then fills the grid.

4.1.3.2.2.6 Add Multi-core Cable

Add Multicore Cable (All Cores)				
	cable entry for each core in the selected Cable Type appending the Pair Imber Base. You may then choose from the available cable records on signments.	,		
Number Base	▼ Core Data			
Cable Manufacturer	▼ Cable Type ▼			
Signal Type	•			
	OK Cancel]		

Drawing > Advanced Tools > Add Multi-core Cable Commandline: mc Several Others

Explanation

Often times we install bundled cables - cables with multiple cores. The outside jacket gets a number and each inner core an extension identifier like: A-1001-RED. Where A-1001 is the number that goes on the outer jacket and A-1001-RED goes on the RED core. Use the Add Multi-core Cable tool to create a record in the database for each core in the Cable Type. The CableNo field will have the full number and the CableNoPrefix field will have the number base. All cores will be marked Available for use. You can then assign one or all or any of them during the normal Cable Number Assignment process. You must have Verbose Cable Assignment checked in order to assign cores in a multi-core cable. Otherwise you will get the next number default.

Item Description	
Number Base	This is the part that goes into the Cable No Prefix field
Cable Type	Only Cable Types that are flagged as Multi-core will show here.
Signal Type	

Reference	353

4.1.3.2.2.7 Cable Error Check

Hand	le	CableNo	Src SysName	SRCPin	SRCLoc	SRCConn	DestSys	DestPin	DestLoc	DestConn
Q	Show Me	V-1002-	SRVR-009	VIDEO.03	Location	BNC	SRVR-010	VIDEO	Location	BNC
Q	Show Me	V-1001-	SRVR-009	VIDEO.02	Location	BNC	SRVR-010	SDI-004	Location	BNC
Q	Show Me	Not Assigned	SRVR-009	VGA	Location	15D HD	SRVR-010	SDI-002	Location	BNC
	1of3 ∢⊂									

Drawing > Advanced Tools > Drawing Error Check

Commandline: dec

Explanation

Check the drawing against the database. Checks the following:

- Retrieves all cables from the drawing.
- Checks the drawing Cable against the database.
- If matched the record is shown normally. If orphaned or not assigned the background color will be changed.

Item	Description
Show Me	Zooms to the selected entity
Check for Errors	Scans then fills the grid.

4.1.3.2.2.8 Auto Block

	ncedl tab you ca	the the Equipment List. You can n adjust the signal types to displa	
awing etc.	., ,	,	
nsertion Point 0,0			
lorizontal Spacing (DU)	24 🗘	Maximum Column Count	10 🗘
Display As:		Signal Types to Display	
Concept (Low Detail) Concept (High Detail) Front Panel (From File) Front Panel (From Dims) Plan View (From File) Plan View (From Dims)		✓ AUD R ✓ Out ✓ ? ✓ _rull ✓ 1394b ✓ 310 ✓ 4fSC	Ô
Display Preferences (1/100 DU)		AC-3	
Body Width Pin Spacing Pin Width	500 \$ 100 \$ 200 \$	AES AES AES 1,2 AES 3,4 AREF	•
Sort by Display Order		Clear Selection	Select All

Drawing > Advanced Tools > Auto Block Commandline: ab

Explanation

The Auto Block tool automatically places functional blocks in the drawing. This tool requires that the Project Systems table be populated.

Possible Uses

- Add functional blocks after creating SysNames from Rack Builder drawings.
- Create overall systems views.
- Create drawings from imported data.

Fore more information view this topic on the Auto Block tool.

	Description						
The [Basic] tab	The AutoBlock						
allows you to determine which	This function places functional blocks in the active drawing. You have the choice of using the I/O defined in the Equipment Library (shows all available ports), or showing only those ports in use in the Cables table. In either case you will be presented with the SysNames from the the Equipment List. You can apply filters to narrow the displayed SysNames. On the [Advanced] tab you can adjust the signal types to display, where to start in the drawing etc.						
systems to add to	Basic Advanced						
the drawing.	Get All Data From Cables Database Filter K Edit						
	10XL-01 @ ROOM 110.2.26-[GRASS VALLEY-10 XL] AMU-01 @ ROOM 110.2.27-[WOHLER-AMP1A] AVID-01 @ 01.28-[AVID-BOB] CC-01 @ ROOM 110.5.11-[EVERTZ-HD9084] Cmon-01 @ 109.DESK RIGHT-[GENERIC EQUIPMENT-Computer Monitor] Cmon-02 @ 109.DESK RIGHT-[GENERIC EQUIPMENT-Computer Monitor] Cmon-03 @ 112.DESK RIGHT-[GENERIC EQUIPMENT-Computer Monitor] Cmon-04 @ 112.DESK RIGHT-[GENERIC EQUIPMENT-Computer Monitor] Cmon-03 @ 112.DESK RIGHT-[GENERIC EQUIPMENT-Computer Monitor] CPU-01 @ 109.DESK-RIGHT-[GENERIC EQUIPMENT-Computer Monitor] CPU-02 @ 112.UDER DESK-[APPLE COMPUTERS-G5] CPU-03 @ 112.LIDER DESK-[APPLE COMPUTERS-G5] CPU-01 @ 109.1.1-1-[EVERT2-7720AD] DMBDR-02 @ 112.1.1.1-[EVERT2-7720AD] DMBDR-02 @ 112.1.1.1-[EVERT2-7720AE] Embedder-01 @ 109.1.1.2.[EVERT2-7720AE] Embedder_0.0 @ 110.1.2.3E[SONY-PVM 14F 10] Embedder_0.0 @ 110.1.2.72E[VERT2-7720AE] Embedder_0.0 @ 110.1.2.72E[VERT2-7720						
	OK Cancel						

Item	Description						
The [Advanced] tab	AutoBlock						
allows you to refine	This function places functional blocks in the active drawing. You have the choice of using the I/O defined in the						
the behavior of the	Equipment Library (shows all available ports), or showing only those ports in use in the Cables table. In either case you will be presented with the SysNames from the the Equipment List. You can apply filters to narrow the displayed SysNames. On the [Advanced] tab you can adjust the signal types to display, where to start in the						
	drawing etc.						
utility.	Basic Advanced						
	Insertion Point 0,0 ····						
	Horizontal Spacing (DU) 24 🗘 Maximum Column Count 10 🗘						
	Display As: Signal Types to Display						
	Functional Block AUD R						
	Concept (Low Detail)						
	Concept (High Detail)						
	▼ 1394b ● Front Panel ▼ 310						
	✓ 4fSC Display Preferences (1/100 DU) ✓ AC-3						
	Display Preferences (1/100 DD)						
	Body Width 500 \$						
	Pin Spading 100 C						
	Pin Width 200 C						
	Sort by Display Order Clear Selection Select All						
	OK Cancel						
Insertion Point	The point we start from.						
Horizontal Spacing	How far apart horizontally. The vertical spacing is defined by the height of the highest						
DU	block in the row.						
		_					
Maximum Column	How many columns horizontally						
Count							
		_					
Get Port Data From	Select this option to search the cables database for port info instead of the global						
Cables Database	equipment database. This will effectively show only those ports to which we have						
	attached cables.						
Display As	How to display the blocks						
Display Preferences	If Functional Block or Concept block is selected then set basic display parameters.						
Signal Types to Display	Filter ports by the selected signal types.						

4.1.3.2.2.9 Ratsnest

Rats Nest Cleanup Cables Fillet All Cables Ratsnest Cleanup Fillet Show Cable Numbers Avoid Other Cables Radius 0.25 ‡
Show Cable Numbers Avoid Other Cables Radius 0.25 *
Clear All Cables

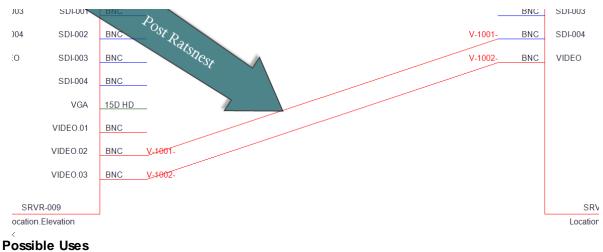
Drawing > Advanced Tools > Ratsnest

Commandline: rn

Explanation

The Ratsnest tool works in conjunction with the Auto Block tool. How it works:

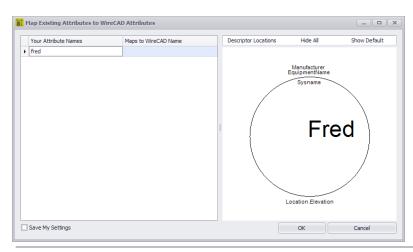
- Get the cables collection.
- Get the SysName>Port info from the drawing.
- Find matches.
- Drawing straight-line cables.



- Create overall systems views.
- Create drawings from imported data.

Item	Description					
This tool has three sections. The Rats Nest section does the work of placing the cables in the drawing as defined in the Cables database.	Ratsnest Eanup Cables Ratsnest Ceanup Pflet Pflet Show Cable Numbers Avoid Other Cables Clear All Cables Distance 0.25 Cancel					
[Ratsnest]	tsnest] Run the utility to place the cables.					
Show Cable Numbers	With or without cable numbers.					
[Clear All Cables]	Removes ALL cables from the drawing.					
[Cleanup]	Applies the autorouter to all cables in the drawing.					
Avoid Other Cables	Autorouter avoids other cables on cleanup.					
[Fillet]	applies fillets to all cables in the drawing					
Distance	fillet distance in 100/DU.					

4.1.3.2.2.10 WireCADify Block



Drawing > Advanced Tools > WireCADify Block Commandline: wirecadifyblock

Explanation

Occassionally you will want to use the geometry of a non-WireCAD generated CAD block. In order to do this you will need to give the necessary attribute set to the CAD block so that it can function in WireCAD as a working assignable entity.

Steps

- Start the command.
- Select a standard CAD block. It must be a block and not exploded entities.
- Follow the directions in the dialog to complete the process of adding the WireCAD attribute set to the CAD block.

Possible Uses

- Use existing CAD drawings and work with WireCAD to move the drawing forward.
- Create custom appearance.

Item	Description
Attribute Map Grid	Map your attribute to WireCAD's.
Descriptor Locations	Reposition the base WireCAD attributes using the Descriptor Locations map.
Hide All	Add all the WireCAD attributes but hide them from view.
Show Default	Show the default attribute set
Preview	Preview of the merged block.

4.1.3.2.2.11 Add Connection Point

8 Add Connection Point	to Existing Block (Insert)	_ – ×
Port Name	My Port Name	
Signal Type	VID	•
Connector (Cable End)	BNC	•
V Port Is Input	Label Text Height (1/100 DU)	0 🗘
Show Labels		
🗹 Port Name	Connector	Signal Type
🗹 Include Geometry		
Oircle O Square	🔘 Triangle 🛛 🔘 X	
Geometry Size X (1/100 DU)	10 🗘 Geometry	Size Y (1/100 DU) 10 🌲
Line Width	1 🔹	
		OK Cancel

Drawing > Advanced Tools > Add Connection Point Commandline: addconnectionpoint

Explanation

If you need to place a connection point (a point to which you can connect a WireCAD cable). You can use this tool.

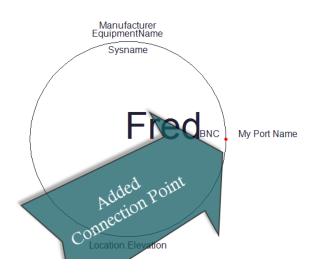
You must use this tool on blocks that have the WireCAD attribute set.

Steps

- Start the command.
- Select a WireCAD block or a block that you have run the WireCADify command on.
- Select the geometric point at which the connection point will appear. This should be something that is easy to snap a WireCAD wire to.
- Follow the directions in the dialog to complete the process of adding the WireCAD attribute set to the CAD block.

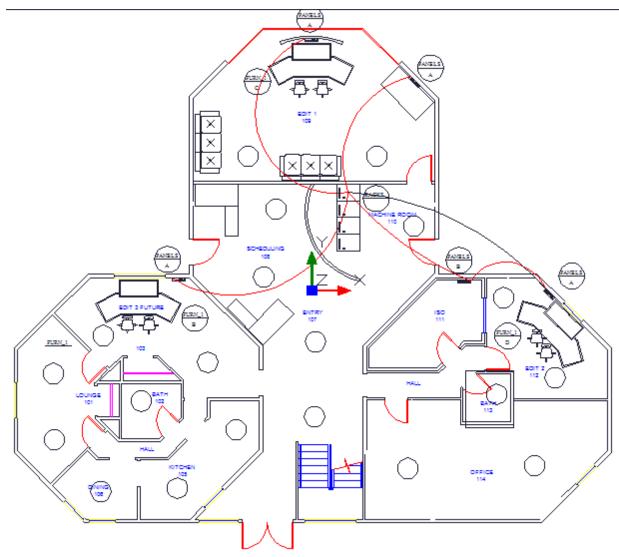
Possible Uses

- Use existing CAD drawings and work with WireCAD to move the drawing forward.
- Create custom appearance.



Item	Description
Port Name	
Signal Type	
Connector (Cable End)	
Port is Input	This will determine which side the label appears on.
Label Text Height	Label text height if shown
Show Labels	
Include Geometry	Display something to snap to.

4.1.3.2.3 Plan View and Layout Tools Dialogs



The following set of tools is targeted at the plan view space.

4.1.3.2.3.1 Take Offs

in	Image: Text Image: Text 0 Image: Ministry of the text Image: Text 0 Image: Ministry of text Image: Text 0	▼ Layer ∡	Inserts Closed Polylines Lines Points Circles Dimensions Entity Types	
1	ItemHandle	Block Name or Entity Type	IgnoreInCount	equipment12x12=4
Þ	1707C	equipment12x12		4-Way Switch=1 B-Size Plotter 3D View=4
	1708A	equipment12x12		Commercial Systems Sound=4
	17098	equipment12x12		Commercial Systems Phone Public=1 3-Way Switch=4
	170A6	equipment12x12		Annunciator=4 Blank Ceiling Outlet=2
	17669	4-Way Switch		Blank Celling Outlet=2
	176BE	B-Size Plotter 3D View		
	17C80	Commercial Systems Sound		=
	17C8E	Commercial Systems Sound		
	17C9C	Commercial Systems Sound		
	17CAA	Commercial Systems Sound		
	17CCC	Diagonal Commercial Systems Phone Public		
	18298	3-Way Switch		
	182A6	3-Way Switch		
	182B4	3-Way Switch		
	44 4 Record 1 of 24 + ++ +	<u></u>	prod	*

Drawing > Plan View and Layout Tools > Take Offs Commandline: showtakeoffs

Explanation

Often we need to count items in the plan view space for quoting or other purposes. The Take Offs tool facilitates this process by filtering the drawing for specific entity types on specific layers then counting those instances.

Possible Uses

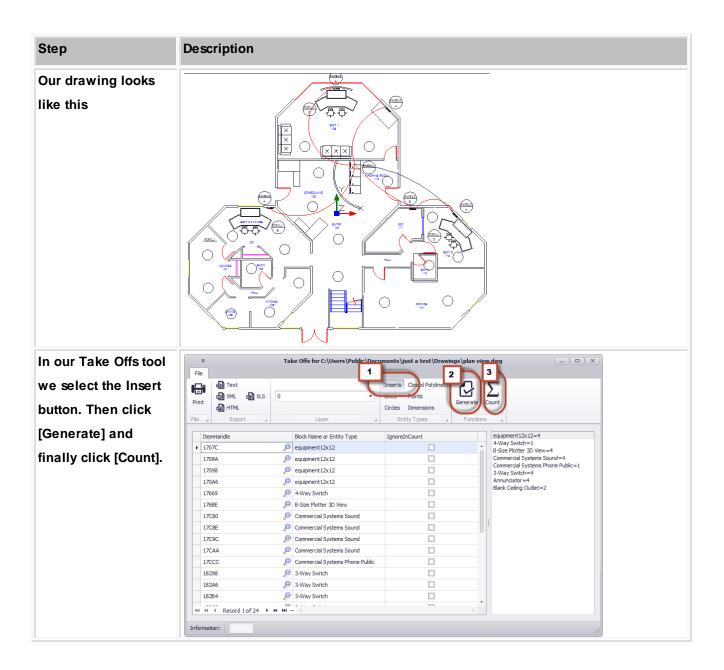
- Quote preparation.
- Trouble-shooting.

Item	Description
Print	Print the grid.
Export	Export the grid.
Layer	What layer are we searching for the selected entity type(s).

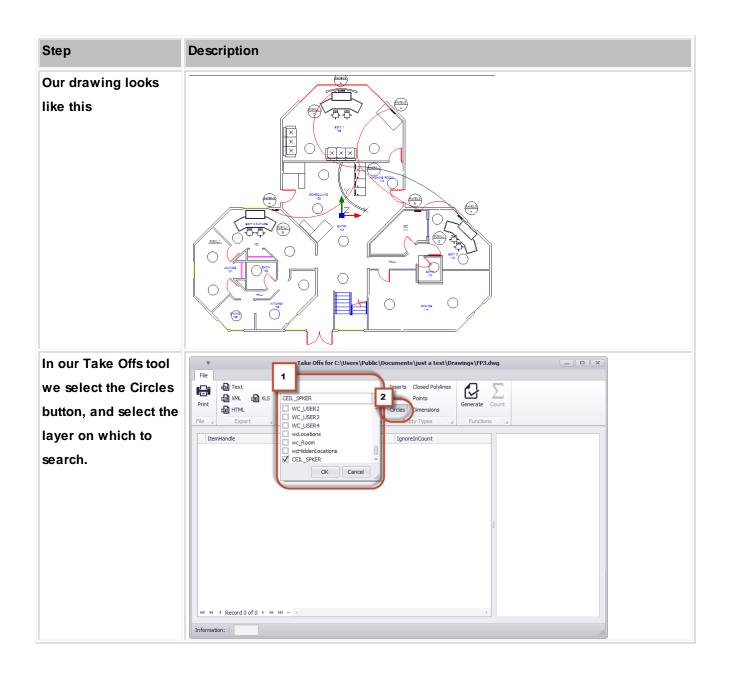
Item	Description
Entity Types	What entity type(s) are we searching for.
Generate	Do It! The results will be displayed in the grid.
Count	Count the items in the list. The results will be displayed in the right-hand list.
Grid Columns	
ltemHandle ShowMe	Zooms to show the item in the drawing.
Block Name or Entity Type	
IgnoreInCount	Ignore me when counting

Examples

Step	Description
This first example counts all inserts in the drawing on all layers.	



Step	Description
Now let's count all	
circles on the	
CEIL_SPKR layer.	



Step	Description					
Then click [Generate]	Take Offs for C:\Users\Public\Documents\just a test\Drawings\FP3.dwg File					
and finally click	Image: Section of the section of t					
[Count].	Print I HTML Generate Count					
	ItemHandle Block Name or Entity Type IgnoreInCount vdCrde=20					
	▶ A8E1 @ vdGirde					
	A8E2 🔎 vdCircle					
	A8E3 🔎 vdCrde					
	A8E4 D vdCirde					
	A8E5 D vdCirde					
	A8E6 🔑 vdCirde					
	A8E7 Ø OdCircle A8E8 Ø vdCircle					
	Acco Do Volroe					
	ABEA B vdCirde					
	A8EB B vdCrde					
	ABEC Ø vdCirde					
	ABED 19 vdCirde					
	ABEE 😰 vdCircle					
	HI HI A Record 1 of 20 + ++ HH - <					
	Information:					
As you can see we						
-						
have 20 circles that						
appear on the						
CEIL_SPKR layer.						

4.1.3.2.3.2 Draw Backbone (ENT Only)

Use Existing Available S Type 💽 💌 🔹 🕈 Type Info Label	Select Existing F To Location Filt Patch Panel Available Po Name	er ID	ting Number	Select
Type +	To Location Filt Patch Panel Available Po	er ID rts		•
Type +	To Location Filt Patch Panel Available Po	er ID rts		•
	Location Filt Patch Panel Available Po	ID rts	Conn	
Type Info Label	Patch Panel Available Po	ID rts	Conn	
	Available Po	rts	Conn	- + ¢
			Conn	
	Name	Туре	Conn	
				From/To
OK Cancel	Terra La constante de la constante			
	OK Cancel	OK Cancel	OK Cancel	OK Cancel

Drawing > PlanView and Layout Tools > Draw Backbone Commandline: none

Explanation

Backbones are collections of cable/fiber that are contained in a single jacket that run from one location to another and are typically sized for growth. An example might be a fiber optic cable that contains 288 fiber cores that runs from building A to building B. We know that initially we will not use all 288 fibers and have planned for growth. As the facility needs change the usage of the backbone's fibers change.

WireCAD maintains backbones just like any multi-core cable with the exception that the Cables table record is flagged IsBackBone = true.

WireCAD will create a cable record for every core in the Cable Type used.

Prerequisites

1. SysNames assigned to the panels/equipment to which you will attach the ends of the Backbone.

2. Multi-core Cable Type representative of the Backbone.

Operation

This tool allows you to draw geometry in the Plan View space that represents the path of the Backbone. The process requires the following steps:

- 1. Draw the polyline that represents the backbone.
- 2. If locations boundaries are found in the drawing the source and destination locations will be used. Otherwise you will be prompted to define a location for each end.
- 3. Next you will be presented with the New Backbone tool where you will select the source and destination panels/ ports and the cable type.
- 4. Clicking [OK] will build a record in the Cables table for each core in the multi-core cable type.
- 5. The polyline length populate the cable record Length field.

Related Topics

Item	Description
New Backbone	Select whether we are creating a new number or assigning existing unused core.
Backbone ID	The number
Use Existing Available	
Location Filter	Filter the list by location
From Panel Info	Select the panel. The ports will be shown in the list.
To Panel Info	Select the panel. The ports will be shown in the list.
Cable Type	Select the Cable Type.

Examples

Step	Description
Our drawing looks	
like this	

Step	Description	

4.1.3.2.3.3 Draw Cable

New Cable					
Cable Type Manu	1	-	Cable Type		•
Source Inform	ation		Destination Info	rmation	
SRC Sys	DAJ-001	• +	Dest Sys	DAJ-002	• +
SRC Pin		•	Dest Pin		•
SRC Loc	Location		Dest Loc	Location	
SRC Conn			Dest Conn		
SRC Alias			DST Alias		
Integrator			Sheet		
Signal Type		•	Length		
User 1			User2		
User3			User4		
Cable No					
				ОК	Cancel

Drawing > PlanView and Layout Tools > Draw Backbone

Commandline: pwdc

Explanation

This tool allows you to draw a cable in Plan View space that is assigned to the Cables table.

Prerequisites

- 1. SysNamed source and destination equipment placed in the Plan View space or:
- 2. Source and destination Location Boundaries placed in the Plan View space.

Operation

This tool allows you to draw geometry in the Plan View space that represents the path of the cable. The process requires the following steps:

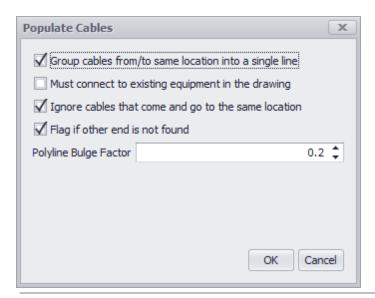
- 1. Start the tool.
- 2. Select the source SysNamed equipment.
- 3. Select the destination SysNamed equipment.
- 4. Place the points in the polyline to finalize the appearance.

Related Topics

Draw Cables 45

Item	Description
Cable Type	
Source Information	The source SysName is pulled from the drawing. You will need to selection the Src Pin and such.
Destination Information	The destination SysName is pulled from the drawing. You will need to selection the Dest Pin and such.
Other Stuff	
Cable No	Click the [] button to generate a cable number.

4.1.3.2.3.4 Populate Cables



Drawing > PlanView and Layout Tools > Populate Cables Commandline: popc

Explanation

This tool pulls the cables from the Cables table into the drawing. The assumption with this tool is that you will use it after you have done your functional drawings and assigned cable numbers and SysNames.

Prerequisites

- 1. SysNamed source and destination equipment placed in the Plan View space or:
- 2. Source and destination Location Boundaries placed in the Plan View space.
- 3. Cable data in the Cables table that matches the placed equipment or locations.

Operation

- 1. Start the tool.
- 2. Select the source SysNamed equipment.
- 3. Select the destination SysNamed equipment.
- 4. Place the points in the polyline to finalize the appearance.

Related Topics

Reference	375

Draw Cables 45

Item	Description
Group Cables	
Must connect to equipment in the drawing	
Ignore cables that come and go to the same location	
Flag if other is is not found	
Polyline Bulge Factor	

4.1.3.2.3.5 Draw Prewire

Cable Type:	Calasta Cabla Tura	
	Select a Cable Type	•
Signal Type:	Select a Signal Type	•
How Many?		
Count:		1 🗘
Group count	as one	
Length Divisor:		12 🜲
Add Path to Nam	ned Paths Table	
Make Named	Path	
Named Path Nan	ne:	
	ОК	Cancel
	How Many? Count: Group count Length Divisor: Add Path to Nam	How Many? Count: Group count as one Length Divisor: Add Path to Named Paths Table Make Named Path Named Path Named Path Name:

Drawing > PlanView and Layout Tools > Draw Prewire Cable Commandline: pw

Explanation

This tool allows you to draw geometry in the drawing that represents cables that have not yet had their functions assigned. The only thing we know about these cables is the locations from which they start and end and the Cable Type. A record will be added to the Cables table based on the count defined. The record is marked Available and PreWIRE. Prewire cables can be automatically consumed later if the

Prerequisites

1. Source and destination Location Boundaries placed in the Plan View space.

Operation

1. Start the tool.

- 2. Fill in the form.
- 3. Draw the cable path.

Related Topics

Draw Cables 45

Item	Description
Cable Type	Select the Cable Type
Signal Type	Select the Signal Type
How Many	How many wires of this type take this path. A record will be created for each.
Length Divisor	We will divide the length of the polyline by this value and place that info in the Length field of the record. For example, say your Drawing Unit = 1 inch and you want the length in the Length field to be displayed in feet. Your Length Divisor would be 12.
Create Named Path	Create an entry in the Named Paths table with the name provided and length of the polyline.

4.1.3.2.3.6 Populate Equipment

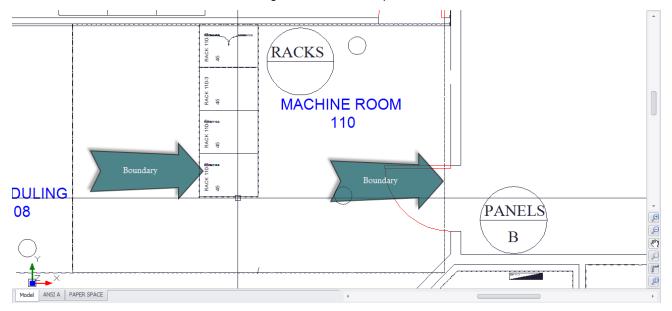
There is no UI for this function

Drawing > PlanView and Layout Tools > Populate Equipment Commandline: pope

Explanation

This tool pulls the Plan View version of the equipment from the Equipment List. The assumption with this tool is that you will use it after you have done your functional drawings and assigned cable numbers and SysNames. This tool relies on the Plan View File in the device definition to know what to place.

Find Detail I/O Display Preferences	
EquipmentName	Image Server 2K
Abbreviation	
Tont Panel File	%BLOCKS%\2D_ELEVA110NS\2U_2D_EL.DWG
Plan View File	%BLOCKS%\plan view\av lv\pushbutton station.dwg ····
Accessory Of	FdtValue is pull
Equipment Description	Mpeg 2 Video Server
Manufacturer ID	360 SYST
Equipment Type (SysName Prefix)	SRVR
Equipment Weight	2.25
Equipment Weight Unit of Measure (UOM)	Pounds -
Equipment Height	2
Equipment Height UOM	Rack Units(RU)
Equipment Width	19
Equipment Width UOM	Inches
Equipment Depth	12



It relies on Location Boundaries in the drawing to know where to place it.

If the Plan View File is blank the Project Default Plan View File will be placed if the Location Boundary is found:

Application Menu > Settings [Project][Basic][Default Plan View Block File]

Default Plan View Block File: %BLOCKS%\Plan View\equipment12x12.dwg ····

Prerequisites

- 1. SysNamed equipment preferably with an associated Plan View File in the global Equipment Library.
- 2. Location Boundaries placed in the drawing.

Operation

- 1. Start the tool.
- 2. A message box will explain the operation of the function. Click [OK]. The tool will run.
- 3. At completion the tool will report the number of placed items.

Related Topics

4.1.3.2.3.7 Location Boundary

Drawing > PlanView and Layout Tools > Location Boundary Commandline: pw

Explanation

Define geometric boundaries for locations important to the design. For example we would want to know where on the drawing the Machine Room is but not necessarily the kitchen (unless part of our cable ends up in the kitchen).

Prerequisites

1. Source and destination Location Boundaries placed in the Plan View space.

Operation

- 1. Start the tool.
- 2. Select a text entity with the name of the location to pre populate the dialog.
- 3. Set the location type and geometry type.
- 4. Draw the boundary
- 5. Done. Lather , rinse, repeat.

Related Topics

Item	Description	
Cable Type	Select the Cable Type	
Signal Type	Select the Signal Type	

Item	Description
How Many	How many wires of this type take this path. A record will be created for each.
Length Divisor	We will divide the length of the polyline by this value and place that info in the Length field of the record. For example, say your Drawing Unit = 1 inch and you want the length in the Length field to be displayed in feet. Your Length Divisor would be 12.
Create Named Path	Create an entry in the Named Paths table with the name provided and length of the polyline.

Examples

4.1.3.3 Data Dialogs

The following is a collection of dialogs that may be presented while in the Data or Grid environment.

4.1.3.3.1 New Location

Campus	✓ Count	1 🗘
Building	✓ Count	1 🗘
Floor	✓ Count	1 🗘
Room	✓ Count	1 🌲
Rack	Count	1 🗘
Description		
Qualified Location		
	Add	Cancel

Database > Locations [New]

Commandline: none

Explanation

This tool is used to create entries in the project Locations lookup table.

Prerequisites

1. None

Operation

- 1. Start the tool.
- 2. Enter the data in the fields as desired.
- 3. Verify the the Qualified Location looks acceptable (its the part that the rest of WireCAD uses).
- 4. Click [Add].

Related Topics

Locations Lookup table 453 Locations form reference 453 Defining Locations 62

Dialog Options

Item	Description
Campus	Enter the Campus name if applicable. If there are multiple numbered campuses you can increment the Count field to append a number and create multiple records for each.
Building	Enter the Building name if applicable. If there are multiple numbered buildings you can increment the Count field to append a number and create multiple records for each.
Floor	Enter the Floor name if applicable. If there are multiple numbered Floors you can increment the Count field to append a number and create multiple records for each.
Room	Enter the Room name if applicable. If there are multiple numbered Rooms you can increment the Count field to append a number and create multiple records for each.
Rack	Enter the Rack name if applicable. If there are multiple numbered Racks you can increment the Count field to append a number and create multiple records for each.
Qualified Location	This is the important part. The Qualified Location is a concatenation of all the used fields. The fields are merely and organizational construct for you. WireCAD will use the Qualified Location throughout the application.

Example

In the following example we will add two locations using different approaches to acheive the same result.

Step	Result					
Enter the data across	8 Add Lo	Add Location(s)				
all fields.	Campus	LA	Count	1 🔹		
	Building	THE FACTORY	Count	1 🔹		
	Floor	Main	Count	1 🜲		
	Room	MR	Count	1 🜲		
	Rack	RK-10	Count	1 🜲		
	Description	1				
Enter the data in a single field	a Add Location(s)					
	Campus		Count	1 🔹		
	Building		Count	1 🔹		
	Floor		Count	1 🔹		
	Room	▼	Count	1 🜲		
	Rack	LA.THE FACTORY.Main.MR.RK-10	Count	1 🗘		
	Description	1				
	-	I Location CTORY.Main.MR.RK-10	Add	Cancel		

As you can see from the above examples the Qualified Location is the same for both. It does not matter which approach you take.

4.1.3.3.2 New Cable

8 New Cable					
Cable Type Manu	1	•	Cable Type		•
Source Inform	Source Information		Destination Info	rmation	
SRC Sys	DAJ-001	* +	Dest Sys	DAJ-002	- +
SRC Pin		•	Dest Pin		-
SRC Loc	Location		Dest Loc	Location	
SRC Conn			Dest Conn		
SRC Alias			DST Alias		
Integrator			Sheet		
Signal Type		•	Length		
User 1			User2		
User3			User4		
Cable No					
				ОК	Cancel

Database > Cables

Commandline: cg

Explanation

This tool allows you to manually create a Cable in the Cables table.

Prerequisites

1. SysNamed source and destination equipment in the Equipment List

Operation

- 1. Start the tool.
- 2. Select the source SysNamed equipment.
- 3. Select the destination SysNamed equipment.
- 4. Click the [...] button on the Cable No field to generate a Cable Number.

Related Topics

Item	Description
Cable Type	
Source Information	The source SysName is pulled from the drawing. You will need to selection the Src Pin and such.
Destination Information	The destination SysName is pulled from the drawing. You will need to selection the Dest Pin and such.
Other Stuff	
Cable No	Click the [] button to generate a cable number.

4.1.3.3.3 New Manufacturer

File	Add Manufacturer	_ –
Save		
File 🔺		
ManufacturerName		
ManufacturerID		
DisplayInEquipment		
DisplayInCableTypes		
ManfacturerWebSite		
ManufacturerImage	No image data	
Information:		11.

Database > Manufacturers [File > New]

Commandline: none

Explanation

This tool allows you to create a new Manufacturer in the Global Equipment database.

Related Topics

Item	Description
Manufacturer Name	The Manufacturer Name
ManufacturerID	Friendly ID
Display Where	Where to show this manufacturer.

Item	Description
Website	Optional
Image	

Reference	389
-----------	-----

4.1.3.3.4 New Equipment Wizard

Who Makes It and Wh	hat's it Called
Manufacturer* EquipmentName/Model/Part Description* SysName Prefix*	Select a Manufacturer Manufacturer Select the manfacturer of this equipment. If you are creating generic piece of equipment, use one of the generic manufacturers.
	L

Database > Equipment [File > New]

Commandline: none

Explanation

This tool allows you to create a new Equipment definition in the Global Equipment database.

Related Topics

Dialog Options

Item	Description
Manufacturer	Select the Manufacturer
EquipmentName/ Model/Part Number	Name it
Description	Describe it.
SysName Prefix	Be brief.

Item	Description		
Front Panel File	Pointer to the front panel file.		
Image			
Categories	This is for you. Create categories and synonyms.		
Synonyms	This is for you. Create categories and synonyms.		
Abbreviation	Not really used yet.		
Accessory Of			

4.1.3.3.5 New Cable Type

File	Nev	r Cable Type	
File 4			
Nanufacturer ID Sele	ct Manufacturer	Cable Type or P/N	
escription			
Cable Char Z		Cable OD	;
Cable Guage		Cable Rating	
Cable Weight		Standard Length	
Core/Conductor Configu	iration		
Shielding	▼ Is Multi Core	Core Count	1 ≑
Conductors Per Core		$1 \stackrel{+}{\downarrow}$ Conductor Count Including Shield(s)	1 🗘
		Default Core/Fiber Mode	•
Color Code Applies To			
Conductors	O Cores	None	
Color Code			Ŧ

Database > Cable Types [File > New] Commandline: showcabletypesgrid

Explanation

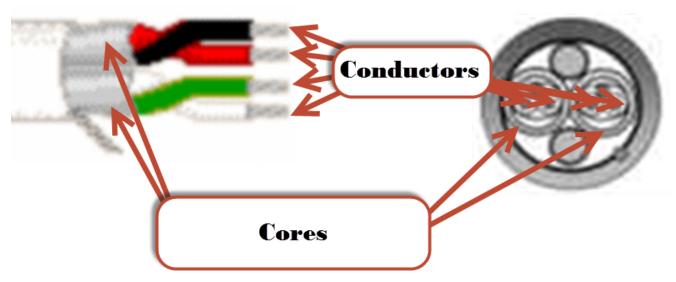
This tool adds a new Cable Type to the Global Equipment database. Cable Types may be either single or multicore and have different shielding configurations. WireCAD projects use the multi-core core color code if any as the descriptor when identifying multi-core cables. The Cable Type Name and Manufacturer are used in the Cable record. All other fields are maintained for reference of the designing engineer.

More About Multi-core Cable Types

WireCAD can create multi-core cable types at two different levels of detail:

- Core level.
- Conductor level.

Cores have conductors. Conductors being the base unit. Most people using WireCAD will not document down to the conductor level but rather the Core level.



Prerequisites

1. None

Related Topics

Create a New Cable Type 170

Item	Description		
Save	Do It!		
ManufactureID	Select a manufacturer. Only Manufacturers that are flagged as DisplayInCabletypes appear in this list.		
Cable Type or P/N	The name by which this cable type shall be known.		
Description	A description for posterity		
Cable Char Z	Characteristic Impedance.		
Cable OD	Outside Diameter.		
Cable Gauge	Gauge		
Cable Rating	Rating		

Reference	393
-----------	-----

Item	Description		
Cable Weight	Standard put up length and weight		
Standard Length			
Core/Conductor Configuration			
Shielding	Shielding determines how many conductors.		
Is Multi-core	Flag this Cable Type as multi-core.		
Core Count	How many cores		
Conductors per Core	Usually one		
Conductor Count Including Shield(s)	Set automatically		
Default Core/Fiber Mode	SM/MM		
Color Code Applies To:	Apply a color code to the conductors, cores or not.		

4.1.3.3.6 Synchronize Global Databases

External	Database Location		
🗸 Datal	oase is server based		
Host:			Authentication
Catalog:	WireCADGlobalEquipme	nt	☑ Use Windows Authentication
	Test Connectio	n	User Name:
			Password:
Import	rt	C Export	O Bidirectional

Database > Sync Global Database ..

Commandline: sync

Explanation

This tool allows you to sync two Global Databases. The current Global Database will be synchronized with the database you select in this dialog. The local and remote database may be either SQL Server of VISTADB. You may import, export or sync with respect to the current Global Database. An Import would collect data from the remote database and import it to the local Global Database.

Prerequisites

1. Two Global Databases. The currently active one and a remote one.

Related Topics

Item	Description
External Database Location	
Database is Server Based	Enter the host information and login. Else browse to the location of the WireCADGlobalEquipment.vdb3 file.
Import	With respect to the current Global Database. This would import data into the current Global Database.
Export	With respect to the current Global Database. This would export data into the external Global Database.
Bidirectional	Sync the two.
Advanced Settings	
Which collections to include	By default you would want to sync all tables.

4.1.3.4 Report Dialogs

8 New Cable			_ □	x
Cable Type Manu		 Cable Type 		•
Source Informa	ation	Destination	on Information	
SRC Sys	DAJ-001 🔻 +	Dest Sys	DAJ-002 🔻	•
SRC Pin	•	Dest Pin		•
SRC Loc	Location	Dest Loc	Location	
SRC Conn		Dest Conn	n	
SRC Alias		DST Alias		
Integrator		Sheet		
Signal Type		 Length 		
User 1		User2		
User3		User4		
Cable No				
			OK Cancel	

Database > Cables

Commandline: cg

Explanation

This tool allows you to manually create a Cable in the Cables table.

Prerequisites

1. SysNamed source and destination equipment in the Equipment List

Operation

- 1. Start the tool.
- 2. Select the source SysNamed equipment.
- 3. Select the destination SysNamed equipment.
- 4. Click the [...] button on the Cable No field to generate a Cable Number.

Related Topics

Dialog Options

Item	Description
Cable Type	
Source Information	The source SysName is pulled from the drawing. You will need to selection the Src Pin and such.
Destination Information	The destination SysName is pulled from the drawing. You will need to selection the Dest Pin and such.
Other Stuff	
Cable No	Click the [] button to generate a cable number.

4.1.3.4.1 New Report Wizard

Report Wizard			
13%	Welcome	to the Reports W	izard
		reate a new report with data-bo nation from the dataset you spec	
And a	Click Next to cor	ntinue.	
A		&Report Type	
		Standard Report	
		🔘 Label Report	
	Cancel	< Back Next >	Finish

Reports > New with Wizard ...

Commandline: rw

Explanation

Create a new report using the New Report Wizard.

NOTE: We recommend that you find an existing report that is close to what you are looking for and modify that after saving it with your name. It will save you time and effort.

Prerequisites

1. Open Project

Operation

- 1. Start the tool.
- 2. Step through the wizard
- 3. Finish the wizard.
- 4. Edit the report in the designer to finalize it.

Related Topics

Creating Reports 93

Reference	399

4.1.3.4.2 Scan for Discrepancies

Scan For Discrepancies	x			
Scan for project discrepencies				
🔘 Reset All Data	Append Discrepency Records			
🗹 Disconnected Pin (noisy)				
🗹 Duplicate Ports in Database				
🗹 Duplicate Cable Numbers in Database				
🗹 Duplicate SysNames in Database				
Forgotten SysNames (assigned yet no	t displayed in any Drawing)			
Clear All Discrepancy Data	OK Cancel			
Status				

Reports > Scan Project for Discrepancies ...

Commandline: dr

Explanation

Scan for common issues.

This tool will generate data in the project Discrepancies table. You can view it by double-clicking the item in the Project Explorer.

Prerequisites

1. Open Project

Operation

- 1. Start the tool.
- 2. Select items to scan for.
- 3. Open the project Discrepancy report from the Project Explorer.

Related Topics

Dialog Options

Item

Description

Disconnected Pins	This is really noisy as it shows all available ports (from the global database) that do not have connections to them in the Cable table.
Duplicate Ports	If you duplicated a port in two places you will be warned on cable number assignment this will warn you again.
Duplicate Cable Numbers	If you duplicated a number here it is.
Duplicate SysNames	If you duplicated a SysName here it is.
Forgotten SysNames	If the SysName appears in the Equipment List but not in any drawing.
Append/Reset	Keep the discrepancy list in tact or reset and start over.
Clear All Data	Reset and start over.

4.1.3.5 Plugins Dialogs

4.1.3.5.1 Plugin Manager

L	Loaded Plugins (these plugins have all registered at least one button on the gui):					Load	
	Na	ame	Description	Copyright	Website	Author	Unload
	Al	ll Block Extractor	Extracts All Bloc	Copyright 2009	www.wirecad.com	Holbrook Enterpr	Orlioad
	Ba	atch Plotter	Batch Plotter Utility	Copyright 2009	www.wirecad.com	WireCAD	Rescan and Reload All
	Bl	lock File Fixer	Changes entities	Copyright 2009	www.wirecad.com	Holbrook Enterpr	Plugin Creation:
	Br	rotherPTouch	Brother P-Touch	Copyright 2009	www.wirecad.com	Holbrook Enterpr	_
	D	WG Diff	Drawing Diff Tool	Copyright 2004	www.wirecad.com	Holbrook Enterpr	Add/Edit PI Info (*.wpi file
	Pa	atchVerx	Patchbay Design	Copyright 2009	www.wirecad.com	Holbrook Enterpr	Edit Plugin Code
	W	/ireCAD.Pinouts	Pinout creation t	Convright 2009-	www.wirecad.com	Holbrook Enterpr *	
	∧ Ur	nloaded Plugins:	Patolibay	Designation Strip De	esigner		
	N	lame	Description	Author	Website	Copyright	
			Description	mm		Copyright	
	Auto		ns (Silent load - may c	or may not have gui (Copyright	
	Auto	o Discovered Plugir IssemblyNameAndf	ns (Silent load - may c	or may not have gui (NameSj	elements)	Copyright	
	Auto	o Discovered Plugir IssemblyNameAndf	ns (Silent load - may o Path	or may not have gui (NameSj	elements)	Copyright	

Explanation

The WireCAD Plugin Manager shows all loaded plugins.

WireCAD Plugin Types

WireCAD has facility for two types of plugin:

- 1. Auto-discovered plugins. These plugins register themselves on application startup. They may or may not include a graphical user interface element.
- Registered plugins. These plugins register themselves via a plugin manifest file located in the C:\Program Files\WireCADx\bin\plugins*.wpi. Registered plugins will place a button somewhere in the WireCAD workspace and may respond to WireCAD events.

Related Topics

Included Plugins

Dialog Options

Item	Description					
Load	Loads the selected plugin from the Unloaded Plugins grid.					
Unload	Unloads the selected plugin from the Loaded Plugins grid.					
Rescan and Reload All	Unloads then rescans and reloads all plugins					
Plugin Creation						
Add/Edit PI info (*. wpi)	Edit a wpi file.					
	File Description Name Description Author Holbrook Enterprises, Inc. Website Copyright Copyright 2000-2015 Holbrook Enterprises, Inc. All Rights Reserved					
	Button Info Tool Tip Caption					
	Ribbon Page Ribbon Page Group Button Bitmap No image data 					
	Command Line and Assembly Info					
	Command Line Long Name Command Line Short Name Command Line Alt Assembly Name And Path Name Space Dot Class Static Method Name					
	Information:					
Edit Plugin Code	Open #Develop to edit plugin code.					

4.1.3.5.2 Script Editor/Runner

Script
File Edit Format 👻
📗 🗋 🧭 📓 👗 🧐 👻 🖳 🧠 🥦 🗐 🗐 🗐 😳 👘
<pre>1 Using System; 2 Using System.Data; 4 Using System.Data; 4 Using System.Nindows.Forms; 5 Using System.Neflection; 8 Using WireCAD: 9 Using WireCAD.Interfaces; 10 public class Script 11 public static void Run(Workspace ws) 14 { 15 //do your stuff here 15 } 19 } 20 //do your stuff here 21 //do your stuff here 22 //do your stuff here 23 //do your stuff here 24 //do your stuff here 24 //do your stuff here 27 //do your stuff here 27 //do your stuff here 28 //do your stuff here 29 //do your stuff here 20 //do your stuff here 21 //do your stuff here 22 //do your stuff here 23 //do your stuff here 24 //do your stuff here 24 //do your stuff here 27 //do your stuff here 27 //do your stuff here 27 //do your stuff here 28 //do your stuff here 29 //do your stuff here 20 //do your stuff here 21 //do your stuff here 22 //do your stuff here 23 //do your stuff here 24 //do your stuff here 25 //do your stuff here 26 //do your stuff here 27 //do your stuff here 27 //do your stuff here 28 //do your stuff here 29 //do your stuff here 20 //do your stuff here 20</pre>
Error List Compiler Output
Line Column Description
WireCAD Script.cs Column: 90

Explanation

Often times there are operations that you find yourself repeating endlessly. Scripts are a good way to automate those processes. There are many example scripts to browse through and see how they work.

NOTE: Scripts that run in WireCAD MUST have the following method signature or they will not execute:

```
using System;
using System.Data;
using System.Text;
using System.Windows.Forms;
using System.Diagnostics;
using System.Reflection;
using WireCAD;
using WireCAD.Interfaces;
//You may add additional using statements as needed but the listed ones are the minimum.
public class Script
```

Reference	405

```
{
    public static void Run(Workspace ws)
    {
        //do your stuff here
    }
}
```

Possible Uses

- 1. Title block filling
- 2. New Drawing creation
- 3. Database cleanup

Usages

- 1. Launch the tool.
- 2. File>Open an example script. (c:\users\public\WireCAD\WireCADx\Scripts\).
- 3. Read the comments (they are the ones proceeded by //).
- 4. Tweak the script to suit your needs.



- 5. Run it by clicking the [RUN] button
- 6. Fix any compiler errors. Lather, rinse, repeat.

Dialog Options

Item	Description
New	Creates a new script with the necessary signature.
Open	Opens a .cs file to run.
Comment	Comment out your selection. Useful for hiding code from the compiler without deleting it.
Un Comment	Un comment your selection
Indent	
Outdent	

Run	If the Error List is empty then Do It. If if fails it will tell you why in the Compiler Outp window.	
Window On Top	Make this the topmost window always	
Error List	Design time scripting errors	
Compiler Output	Run time compiler and script execution errors.	

4.1.3.5.3 Translation Manager

un	rent Culture is: en - English (United States)	Select Language To Transl	Me: St - français - French	Show Context		Translation Statistics
	ag a column header here to group by that column					Total String Count = 3399 Not Translated to en = 0
					_	Foreign Language en = en count: 33
	en	6				Translated = 0
					_	
1	WireCAD				- 1	
	UserSettings.xml					
	SupportPaths					
	Group					
	Label					
	Checked					
	Unchecked					
	Loaded Plugins:					
	PRO					
	Copyright 2000-2009 Holbrook Enterprises, Inc.					
	Version:					
	Serial Number: - Trial					
	Info					
	0					
	Lubing up the engine room					
	Lubing up the engine room					
1	AutoSave In: (0)					
	(Unassigned Items)					
	(All Items)					

Explanation

All visible text strings in WireCAD are contained in dictionary that is editable via the Translation Manager. The current UI culture is queried for a string. If not found the English version is returned.

You can right-click a column header and select the KeyString column to should the base English string that the program searches from.

NOTE: Some forms and dialogs only get their text strings on program start so changes here will not be visible to all areas of the application until you restart WireCAD.

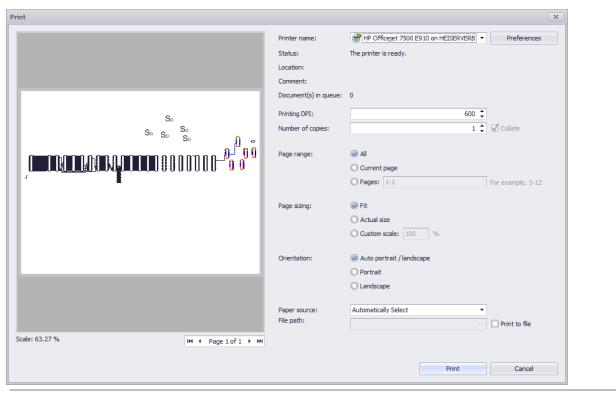
Possible Uses

- 1. Translate WireCAD into a different language.
- 2. Change user column names and labels in the application to aid your process.

Item	Description
Current Culture is:	The culture of your machine. If no translation exists, WireCAD defaults to the en (English) language.
Select Language To Translate:	Selects the language to edit in the right-hand column.
Show Context	Select to display a column showing the primary context in which the string or message appears.

4.1.3.6 PDF Viewer Dialogs

4.1.3.6.1 PDF Print Preview



Project Explorer > Double-click PDF File [Print] Commandline: None

Explanation

This is the Print Preview Dialog for the PDF Viewer. It's pretty standard so we won't enumerate all the controls here.

Prerequisites

1. At least one pdf file saved in the project drawings path.

4.2 Forms

Enter topic text here.

4.2.1 Application Menu Forms

4.2.1.1 Project Information

4.2.1.2 Account Info

4.2.2 Global Data Forms

4.2.2.1 Manufacturers Grid

							/
ManufacturerID	 ManufacturerName 	DisplayInE	Ma	ManufacturerImage	Mo	Мо	Crea
				No image data			
± 0000	0000			No image data		11/	11/2
∃ 360 SYST	360 SYSTEMS	V	<u>ww</u>	36 Systems BROADCAST		7/1	11/2
360SYSTE	360SYSTEMS	\checkmark		No image data		10/	10/1
I SCOMM	зсомм			يە 3COM		2/1	11/2
∃ AA	AUDIO AUTHORITY	\checkmark		No image data		11/	11/2
E ACCOM	ACCOM	\checkmark		No image data		2/1	11/2
ACTIVE STORAGE	ACTIVE STORAGE			No image data		11/	11/2
e adc	ADC			ADC		2/1	11/2
ADTEC DIGITAL	ADTEC DIGITAL	\checkmark	<u>htt</u>	No image data		8/1	8/14
	AIR TOOLS	\checkmark		diclocis		8/1	8/27

Database > Manufacturers

Commandline: man

Explanation

This tool provides access to the Manufacturers table of the Global Equipment database. The grid is hierarchical.

The [+] buttons may be expanded to show related equipment.

Deletes here cascade, deleting any equipment that is associated with the Manufacturer.

Prerequisites

1. There is at least one Manufacturer added to the Global Equipment database.

Related Topics Grid Basics

Item	Description
New	Show the <u>New Manufacturers dialog</u> 387
Attach Document	Any document may be attached to any record. This is a handy place to store manufacturer data sheets, images and such.
Remove Duplicates	 This function scans the table for duplicate Manufacturer Names. If found the following occurs: All equipment is rolled up under the top instance of the manufacturer. All other instances are deleted. The collection is saved. NOTE: a safety valve exists where if the Manufacturer is flagged to DisplayInCableTypes the function is ignored.

4.2.2.2 Equipment Grid

planation rag a column hei	ader here to gro	oup by that column											
Equipment	FKManufac	ManufacturerID	EquipmentName	▼ Accessory Of	Equipment	Equipment	Equipment	Equipment	Equipment	Equipment	Equipment	Equipment	Equipment.
⊞ 8b4081	7a0279ac	BLON	ZCM-48-550		RF Distribu	RF Amp	0		0		0		
⊞ b09220c	b76c09bb	THOMSON	XtenDD		Production	Production	75		15	Inches	19		
⊞ 8c5cf05	7df89ef4	APPL	XRAID 5_6		DRIVE	DRIVE	0		0		0		
	7df89ef4	APPL	XRAID 2-8TB		DRIVE RAID 5	DRIVE	0		0		0		
⊞ 492adb	a16a5015	AVID	XPress DV		NLE	Avid	0		0		0		
	b4efdc5f-5	LEIT	XPR12VA2		ROUTING S	SWITCHER	0		0		0		
⊞ 851def7	5b208bce	3COMM	XP 490		Router	RTR	0		0		0		
∃ 56cb879	29029658	AMP	XL-1		AES Patch	Patch	0		0		0		
⊞ c1bb385	e711e9bb	EVERTZ	X-9504		4X1 ROUTER	ROUTER	0		1	Rack Units(0		
	0aaf1726	PANA	WV-5203B		3 UP Mono	MON							
	6346bcb8	CISCO	WS-C2950T		ETHERNET	DATA SW	0		0		0		
⊞ fefa969	9a354944	TEK	WFM1740		Waveform	WFM	0		0		0		
⊞ c6fc4e0	2354b4d5	HARRIS	WESTRONICS		INTERFACE	INT	0		0		0		
	99770629	WAVETECH	WAVE 1000		12X1 RF R	RTR	0		0		0		
020decc	2354b4d5	HARRIS	Watchdog		Transport	DTV	0		0		5	Rack Units(
⊞ 8b8a4b	e0fa2923	CUSTOM P	WALL PANNEL		WALL PAN	TERM	0		0		0		
⊞ 38d1f7f	8a8a56d6	GNRC	VU METER		AUDIO ME	AUD	0		0		0		
⊞ 3cf1b0f	8a8a56d6	GNRC	VTR SPARE		VTR	VTR	0		0		0		
	e44b8613	GENERIC	VTR		VTR	VTR	0		0		0		
⊞ ee1701f	b35be399	VTEK	VTM-440		Scope	VTM	0		0		0		
44 4 Recor	d 1 of 684 ♦	+ + + - → √ × - (Þ

Database > Equipment

Commandline: eg

Explanation

This tool provides access to the Equipment table of the Global Equipment database. The grid is hierarchical. The [+] buttons may be expanded to show related Inputs and Outputs.

Deletes here cascade, deleting any I/O associated with the Equipment.

Prerequisites

1. There is at least one Manufacturer added to the Global Equipment database.

Related Topics Grid Basics

Item	Description
New	Show the <u>New Equipment Wizard</u> 389
Attach Document	Any document may be attached to any record. This is a handy place to store manufacturer data sheets, images and such.
Clean	This function scans the table for Equipment with no I/O. If found the following occurs:The Equipment definition is deleted.The collection is saved.
Transfer to Different	Allows movement of the selected device to a different Manufacturer.
Manufacturer	Select Manufacturer Select Manufacturer to move selected equipment to Please select a Manufacturer V OK Cancel

4.2.2.3 Signal Types Grid

ag a column header here t						
Туре	Color	SignalType	OnLayer	CableManu	CableType	CableNoPrefix
			Click here to add a r	new row		
AUD R	2	AUD R				A
Out	3	Out				OUT
?	4	?				HUH
_null	5	_null_				
1394b	Foreground	1394b				FW
310	7	310				310
4fSC	8	4fSC				v
AC-3	1	AC-3		BELDEN	1505A 003 ORG	DA
ADAT	ByLayer	ADAT		BELDEN	1505A 003 ORG	DA
AES	ByLayer	AES		BELDEN	1505A 003 ORG	DA
AES 1,2	Foreground	AES 1,2		BELDEN	1506A-002 Red	DA
AES 3,4	Foreground	AES 3,4		BELDEN	1506A-002 Red	DA
AREF	2	AREF				DA
ASI	Foreground	ASI		BELDEN	1505A 003 ORG	DA
AUD	2	AUD		BELDEN	1801A	AA
AUD L	2	AUD L		BELDEN	1801A	AA
AUD M	2	AUD M		BELDEN	1801A	AA
AUD R	19					AA
AUDIO AES	Foreground	AUDIO AES		BELDEN	1506A-002 Red	AA
AUDIO ANALOG	3	AUDIO ANALOG		BELDEN	1503A - Black	AA

Database > Signal Types

Commandline: st

Explanation

This tool provides access to the Signal Types table of the Global Equipment database. Many of the default display behaviors originate here, for instance:

- The color of pins on a block
- The color of cables
- The Cable Type associated with the Signal Type
- The Cable Number prefix

Prerequisites

1. None

Related Topics

Grid Basics 79

ltem	Description
New	There is no New button on this grid. The New Record Row appears at the top of the grid:
	Type Color SignaType OnLayer CableManu CableNoPrefix e Click here to add a new row Click here to add a new row
•	Rename the Signal Type in this grid and all I/O in the database.
Rename I/O Signal Types Rebuild Signal Types	
Types	
Types Rebuild Signal Types	This function scans the Inputs and Output for Signal Types then:

4.2.2.4 Connectors Grid

Connector 4	 Description 	DefaultPinOut	Manufacturer	PartNumber	TerminationMet	ConnVendor 1	ConnVendor2	ConnCost1	ConnCost2	ModifiedBy	ModifiedOn	CreatedOn
					Cli	k here to add a n	ew row					
··· ?	Not Sure	[?] To [?] - 234						0)	0	11/23/2008 10	11/23/2008 10:01
1.5MM	Audio Connector							0)	0	1/30/2010 1:3	11/23/2008 10:01
··· 1/4"	UNBALANCED										8/9/2013 12:1	8/9/2013 12:16:2
··· 1/4"	BALANCED										8/9/2013 12:1	8/9/2013 12:13:4
··· 1/4"	MONO										8/9/2013 12:1	8/9/2013 12:13:5
··· 1/4"	BAL/UNBAL										8/9/2013 12:1	8/9/2013 12:17:2
1/4" TRS	Stereo or balan										7/26/2012 11:	7/26/2012 11:45:
⊞ 1/4" TS	Instrument Level										7/26/2012 11:	7/26/2012 11:41:
⊞ 1/4"M	Mono 1/4" Phone							0)	0	11/23/2008 10	11/23/2008 10:01
⊞ 1/4"S	Stereo 1/4" Ph							0)	0	11/23/2008 10	11/23/2008 10:01
🗄 1/8" mini	1/8" mini headp							0)	0	2/14/2012 11:	11/23/2008 10:01
🗄 1/8" Mini St	Audio Connector							0)	0	9/24/2012 7:0	11/23/2008 10:01
··· 1394	Firewire							0)	0	7/7/2012 12:1	11/23/2008 10:01
15D	15 PIN D SUB							0)	0	11/23/2008 10	11/23/2008 10:01
15D HD	15 PIN D SUB H							0)	0	11/23/2008 10	11/23/2008 10:01
1 25D	25 Pin Dim							0)	0	11/23/2008 10	11/23/2008 10:01
3.5mm	Standard 3.5m										7/7/2012 12:0	7/7/2012 12:07:4
36 ELCO	36 Pin Elco							0)	0	11/23/2008 10	11/23/2008 10:01
· 36D	36 Pin D Sub							0)	0	11/23/2008 10	11/23/2008 10:01
· 37D	37-Pin D-Sub C										1/24/2013 1:3	1/24/2013 1:38:1
3mPHX	3Pin Mini Phoenix							0	5	0	11/23/2008 10	11/23/2008 10:01

Database > Connectors

Commandline: cn

Explanation

This tool provides access to the Connectors table of the Global Equipment database.

Prerequisites

1. None

Related Topics

Grid Basics 79

Item	Description								
New	There is no New button on this grid. The New Record Row appears at the top of the grid:								
	Type *	Color	SignalType	OnLayer Click here to add a	CableManu	CableType	CableNoPrefix		
Rename I/O Connector Types	Rename	the Connec	tor in this gric	l and all I/O	in the databa	ISE.			

4.2.2.5 Cable Types Grid

ag a column header here to						
Туре	Color	SignalType	OnLayer	CableManu	CableType	CableNoPrefix
			Click here to add a ne	w row		
AUD R	2	AUD R				A
Out	3	Out				OUT
?	4	?				HUH
_null	5	_nul_				
1394b	Foreground	1394b				FW
310	7	310				310
4fSC	8	4fSC				v
AC-3	1	AC-3		BELDEN	1505A 003 ORG	DA
ADAT	ByLayer	ADAT		BELDEN	1505A 003 ORG	DA
AES	ByLayer	AES		BELDEN	1505A 003 ORG	DA
AES 1,2	Foreground	AES 1,2		BELDEN	1506A-002 Red	DA
AES 3,4	Foreground	AES 3,4		BELDEN	1506A-002 Red	DA
AREF	2	AREF				DA
ASI	Foreground	ASI		BELDEN	1505A 003 ORG	DA
AUD	2	AUD		BELDEN	1801A	AA
AUD L	2	AUD L		BELDEN	1801A	AA
AUD M	2	AUD M		BELDEN	1801A	AA
AUD R	19					AA
AUDIO AES	Foreground	AUDIO AES		BELDEN	1506A-002 Red	AA
AUDIO ANALOG	3	AUDIO ANALOG		BELDEN	1503A - Black	AA

Database > Signal Types

Commandline: st

Explanation

This tool provides access to the Signal Types table of the Global Equipment database. Many of the default display behaviors originate here, for instance:

- The color of pins on a block
- The color of cables
- The Cable Type associated with the Signal Type
- The Cable Number prefix

Prerequisites

1. None

Related Topics

Grid Basics 79

Item	Description								
New	There is no New button on this grid. The New Record Row appears at the top of the grid								
	Type Color Signaffype OnLayer CableManu CableManu CableManu Click-here to add a new rew Click-here to add a new rew								
Rename I/O Signal	Rename the Signal Type in this grid and all I/O in the database.								
Types									
Rebuild Signal Types	This function scans the Inputs and Output for Signal Types then:								
from I/O	Checks existing in this grid.								
	Add if not found.								
	Collection is saved.								

Reference	421
-----------	-----

4.2.2.6 Color Codes Grid

onduct	 ColorCode 	Notes	ModifiedBy	ModifiedOn	CreatedOn			
		Click here t	o add a new row					
CCNan	ne: Belden Chart	15						
- CC	Description: Bel	den Standa	d Color Code 1	5				
01	Black			11/23/200	11/23/2008			
02	Red			11/23/200	11/23/2008			
03	White			11/23/200	11/23/2008			
04	Green			11/23/200	11/23/2008			
05	Brown			11/23/200	11/23/2008			
06	Blue			11/23/200	11/23/2 🔻			
07	Orange			11/23/200	11/23/2008			
08	Yellow			11/23/200	11/23/2008			
09	Purple			11/23/200	11/23/2008			
10	Gray			11/23/200	11/23/2008			
11	Pink			11/23/200	11/23/2008			
12	Tan			11/23/200	11/23/2008			
13	White/Black			11/23/200	11/23/2008			
14	White/Red			11/23/200	11/23/2008			
15	White/Green			11/23/200	11/23/2008			
16	White/Ora			11/23/200	11/23/2008			
17	White/Blue			11/23/200	11/23/2008			
18	White/Brown			11/23/200	11/23/2008			
19	White/Yellow			11/23/200	11/23/2008			
20	White/Purple			11/23/200	11/23/2008			
4 4 Re	cord 6 of 216		2 M /	11/10/100	11/10/1000			

Project Explorer > Color Codes

Commandline: showcolorcodesgrid

Explanation

This tool provides access to the Color Codes table of the Global Equipment database.

Prerequisites

1. None

Related Topics

Grid Basics 79

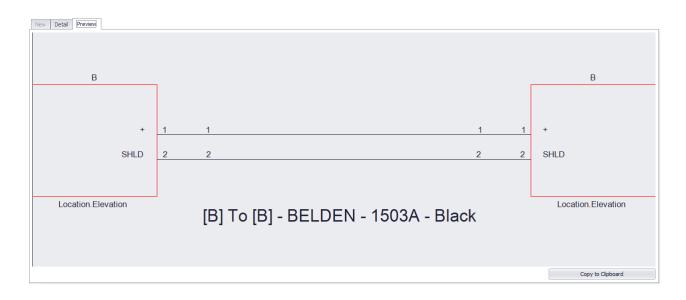
4.2.2.7 Pinouts

		BELDEN - 1503A - Black					•
Show More Detail			Preserve Pin Order When Creating Preview		Ortho Conductors		
		Cable Type	Righthand Connector RH Connector RH Pin			more	
	1 +	1	В	1	+		
🗄 B	2 SHLD	2	в				
			1-	2	SHLD		
			-	2	SHLD		
			-	2	SHLD		

Database > Pinouts Commandline: po

Explanation

This tool provides access to the Pinouts table of the Global Equipment database. The concept of the Pinouts tool is to create a data set that describes two connectors and the conductors between them. The Cable Type data needs to have conductor level data. The data may be attached at the project level to a cable. The data can also be churned into a preview.



Prerequisites

1. None

Related Topics

Grid Basics 79

Form Detail Tab Options

Item	Description				
Select Existing Pinout Profile	Select a named pinout to fill the grid and subsequent preview.				
Show More Detail	Shows more rows of data to edit.				
Preserve Pin Order When Creating Preview	How is the Preview created.				
Ortho Conductors					
Pinout Grid	Edit the pinout data to assign the conductors to the pins and termination methods and so on.				

Start Page × Global Equipment × Signal Types (Global) × Connectors × Ca	ble Types 🗙 Color Codes 🗙 Pinouts 🗙		
New Detail Preview			
Pinout Name			
Lefthand Connector	Cable Type	Righthand Connector	
Connector	Manufacturer	Connector	•
Pin Profile 🔹 🔹	Cable Type 🔹	Pin Profile	· +
Pin Count 0 🗘	Notes	Pin Count	0 🗘
Term Method		Term Method	-
		Create New	Cancel
Information			

Clicking the New button enables the New Tab. From here you enter the overall data for the pinout. The Lefthand and Righthand connectors conductor counts, etc. Once the pinout is created you can edit the detail in the Detail tab.

Form New Tab Options

Item	Description
Lefthand Connector Info	Enter the connector type, pin profile (if any) and count.
Cable Type	Select the Cable Type. Remember this type must have conductor level data. Core Level data alone will not suffice here.
Righthand Connector Info	Enter the connector type, pin profile (if any) and count.

Reference	425

4.2.3 Project Data Forms

4.2.3.1 Backbone Grid (ENT ONLY)

er by	SysName	Select a SysNa	ame													-
kbon																
Ckt	No	CableType	CableType	CableNo	Src SysName	DestSys	SRCPin	DestPin	SRCLoc	SRCEI	DestLoc	DestEl	SRCConn	DestConn	MultiCore	AvailableC
-	CableNo	Prefix: B0000	L													U
		GENERIC	6 STRAND	B00001.01	AD-1	CC-R59-5	001	067	AMU.BLDG		AMU.COM		SCA	SCB		
	+	GENERIC	6 STRAND	B00001.02	AD-1	CC-R59-5	002	068	AMU.BLDG		AMU.COM		SCA	SCB		
	+	GENERIC	6 STRAND	B00001.03	AD-1	CC-R59-5	003	069	AMU.BLDG		AMU.COM		SCA	SCB		
	+	GENERIC	6 STRAND	B00001.04	AD-1	CC-R59-5	004	070	AMU.BLDG		AMU.COM		SCA	SCB		
	+	GENERIC	6 STRAND	B00001.05	AD-1	CC-R59-5	005	071	AMU.BLDG		AMU.COM		SCA	SCB		
	+	GENERIC	6 STRAND	B00001.06	AD-1	CC-R59-5	006	072	AMU.BLDG		AMU.COM		SCA	SCB		
-	CableNo	Prefix: B0000	2													
	0474	GENERIC	6 STRAND	B00002.01	AD-1	CC-R59-4	007	067	AMU.BLDG		AMU.COM		SCA	SCA		
	0474	GENERIC	6 STRAND	B00002.02	AD-1	CC-R59-4	008	068	AMU.BLDG		AMU.COM		SCA	SCA		
		GENERIC	6 STRAND	B00002.03	AD-1	CC-R59-4	009	069	AMU.BLDG		AMU.COM		SCA	SCA		
	-	GENERIC	6 STRAND	B00002.04	AD-1	CC-R59-4	010	070	AMU.BLDG		AMU.COM		SCA	SCA		
	+	GENERIC	6 STRAND	B00002.05	AD-1	CC-R59-4	011	071	AMU.BLDG		AMU.COM		SCA	SCA		
	+	GENERIC	6 STRAND	B00002.06	AD-1	CC-R59-4	012	072	AMU.BLDG		AMU.COM		SCA	SCA		
-	CableNol	Prefix: B0000	3													
	+	GENERIC	48 STRAND	B00003.01	AD-3	CC-R54-4	001	001	AMU.BLDG		AMU.COM		FC	SCA		
	+	GENERIC	48 STRAND	B00003.02	AD-3	CC-R54-4	002	002	AMU.BLDG		AMU.COM		FC	SCA		
		GENERIC	48 STRAND	B00003.03	AD-3	CC-R54-4	003	003	AMU.BLDG		AMU.COM		FC	SCA		
44	4 Rec	ord 1 of 10786	F HF HF -													•

Databases > Backbones

Commandline: bbg

Explanation

This is the Backbones view and includes a visualizer that can produce both ladder diagrams and riser diagrams. Here you can view and search Backbone data. You can also set the Status of a Backbone.

Prerequisites

Backbones created in the project database.

Related Topics

<u>New Backbone</u>โาзปี <u>Backbones</u>โาวปี <u>Grid Basics</u>โ79ไ

Item	Description
Search	Search the collection for the search term.
Find All	Clear the search field and return all records.
Tools	
Attach Document	Any document can be attached to any record. This is useful for storing cut-sheet data, test data, and images.
Rename Source Connector(s)	Rename all of the connectors on the source side of the cables that comprise the backbone.
Rename Destination Connector(s)	Rename all of the connectors on the destination side of the cables that comprise the backbone.
Rename Fiber Mode	Rename all of the fiber modes on the cables that comprise the backbone.

Data Visualization Settings	Visualization				
Terminal		Location Marker Spacing			500 💲
Cable Number Text Ht	25 🛊	Location Marker Text Ht			25 🌲
Vertical Spacing 1/100 DU	1 \$	Location Marker Color	(144,238,144)		•
Center Label Offset	HI 0,0,0 ·	Location Marker Pen Width			10 🌲
SysName Label Offset	HI 0,0,0 -	SysName Rotation Angle	O 45		•
SysName Text Ht	25 ‡	Show Dot Direction Colo	r	Junction Dot Radius	12 🗘
Port Info Format String	{0}>{1}	Show SysNames		Ignore Cables Between Same Location	
Cable Text Format String	(0)	Color By Signal Type		Cable Color (0,0,255)	
Show All Locations		Collapse Multicore Cable	s to Single Line		
109.1.1-1 109.1.12 109.0.1.2 109.0ESK 109.0ESK LEFT 110.0ESK LEFT 112.1.1-1 112.1.1-2	Down				
Title Block					
Z Enable					
Text Height 1/100 DU	50 ‡ T	itle Title Block Goes HereAn	l Here		
Show Time Stamp					
Title Location	E BottomLeft •				
Title Offset	H <u>I</u> -1,-1,0 •				

Visualization Tab Options

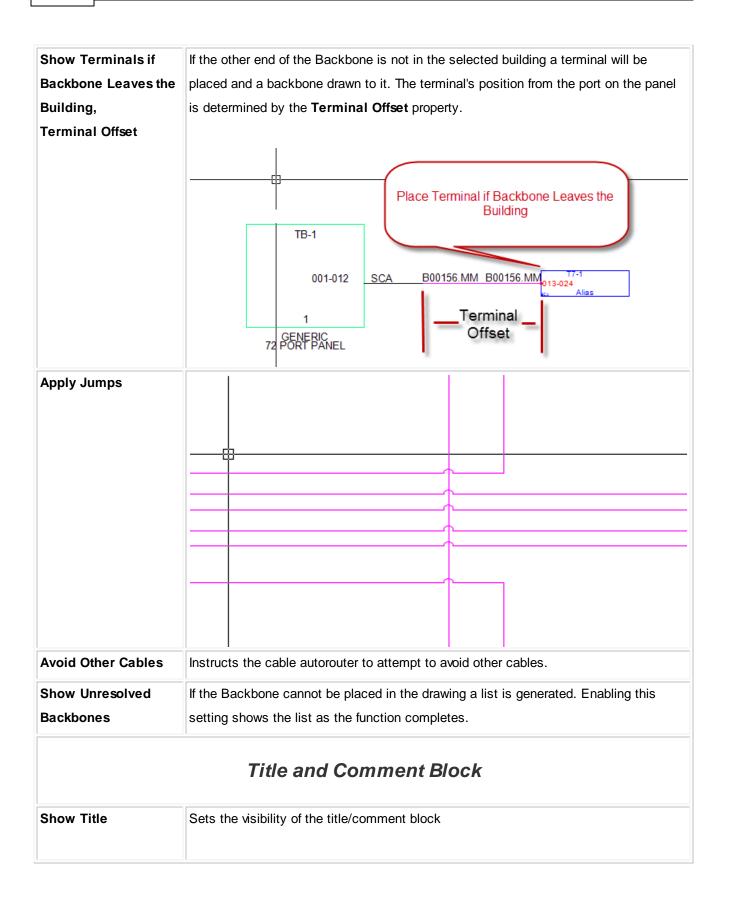
Item	Description
Show All	Shows all backbones in the database in the Visualize tool
Current Record	Allows selection of only those backbones that touch the selected record.
Search Depth	How many branches deep are we going to search.
Search Width	How many backbones per branch.
	Appearance
Location Marker	
Spacing	BASEMENT BASEMENT.PYLON ROOM BASEMEI

Reference	429

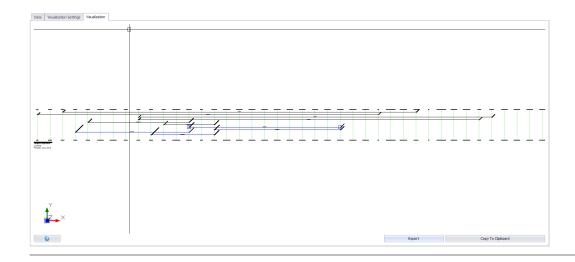
Location Marker Text Height
Location Marker Color
Junction Dot Radius
Vertical Backbone Spacing(DU)

Center Label Format	String used to create the center label. Can make use of the following variables: {0} = Backbone Number
	{1} = Total Count
	{2} = Total Available Count
	{3} = Total Dead Count
	{4} = Single Mode Fiber Count
	{5} = Available Single Mode Fiber Count
	{6} = Dead Single Mode Fiber Count
	{7} = Multimode Fiber Count
	{8} = Available Multimode Fiber Count
	{9} = Dead Multimode Fiber Count
	Example:
	assume that our backbone number is 1001 with 12 single mode fibers of which 1 is
	dead and four are in use.
	String:
	B{0}-SM COUNT:{4} Avail:{5} Dead:{6}
	Output:
	B1001-SM COUNT:12 Avail:8 Dead:1
	String:
	B{0}
	Output:
	B1001
Center Label Offset	Offset from center in DU
Show SysNames	Shows the SysName labels
Ignore Same	Hides backbones that originate and terminate in the same location
Locations	

SysName Rotation	Sets the rotation angle of the SysName label if shown										
Angle											
SysName Text Height (100th DU)	Sets the	e height o	of the Sys	sName	text if s	hown					
SysName Text Offset	Offset fr	om the e	ndpoint a	of the ba	ackbone)					
	-	R	iser D	iagra	am M	lode					
Campus and Building The Campus and Building for which to build the riser diagram											
					─ॼ ऺऺ॑ॖ॑॑॑॑				œ۳	-	
									<u></u> _	<u> </u>	
			- য								
				_ <u> </u>		_					
						E					
	-5					_			_	_	
		- .			L.E				-5	-E	
	-757										
	<u>-</u> ਦ	E		- TEF		ੀ-ਦ		-17	9		
					Q	Ţ					
Layout	Determi	ne the la	yout of th	ne panel	s in the	e diagrar	n				
Max Columns,		5th floor									
Column Spacing,			54			7-1		1011 101 1011 1011		۲- ۲-	
Minimum Row Height			87-173 <u>262 807</u> 0 21 000750g			TH-13					
		4th floor									
		Notice	744 01-004 1 1/107/10			79-00 		1940 00-000 1 1,256/25_		N 21187 - M.A	
		LEOTU	75+1) M KG 01-006			78-100 004		7644		LOTITO	
			。 11校刊5a			接用法。				*46	
		3rd floor									
Body Color, Body	Determi	nes the a	appearan	ce of the	e body	of the pa	anels in	the diag	ram		
Width, Descriptor					-	-		-			
Locations											
LUCATIONS											



Title Position	
Show Time Stamp	
Title Text Height (100th DU)	All Backbones Legend: Backbone # (Strand Count \ Available Strands \ Dead Strands) Dead Strands Show in Available Strand Count
Title Offset	Tuesday, May 07, 2013
Title	
	Misc.
Backbone Color by Signal Type	Pulls the backbone color from the global Signal Types database.
Show Directional Coloring	Shows green dots for the source end of the backbone and red dots for the destination end if shown.
Backbone Color	Sets all backbones to the color defined.
[Reset Default]	Button to reset the settings to the defaults.



Visualize Tab Options

ltem

Description

Export	Export to file.
Copy To Clipboard	Copy to clipboard
Refresh	Refresh the preview.

4.2.3.2 Circuits Grid (ENT ONLY)

	umn header here to g	oup by that colu	mn									
CktNo	CktSrc	CktDst	IT System	CktStrandC	IPAddress	SubnetMask	CktSrcLoca	CktDstLoca	Owner	Status	InServiceDate	
⊞ 000	1 ACMB-2	[CFE~IT E	FIBER CIR	1					ASHLEE	PROPOSED	4/26/2013	
± 000	2 ACMB-2	[CFE~IT E	FIBER CIR	1					ASHLEE	PROPOSED	4/26/2013	
± 000	ACMB-2	[CFE~IT E	FIBER CIR	1					ASHLEE	PROPOSED	4/26/2013	
± 000	4 [CFE~IT E	[CFE~IT E	FIBER CIR	2					ASHLEE	PROPOSED	4/26/2013	
± 000	5 [CFE~IT E	[CFE~IT E	FIBER CIR	4					ASHLEE	PROPOSED	4/26/2013	
± 001) [CFE~CCT	[CFE~IT E	FIBER CIR	4					ASHLEE	PROPOSED	4/26/2013	
± 001	2 [CFE~EQU	[CFE~EQU	FIBER CIR	2					ASHLEE	PROPOSED	4/26/2013	
± 001	3 [CFE~EQU	[CFE~EQU	FIBER CIR	4					ASHLEE	PROPOSED	4/26/2013	
± 001	5 [CFE~CCT	[CFE~EQU	FIBER CIR	4					ASHLEE	PROPOSED	4/26/2013	
± 001	7 [CFE~EQU	[CFE~CCT	FIBER CIR	4					ASHLEE	PROPOSED	4/26/2013	
± 002) [CFE~EQU	[CFE~EQU	FIBER CIR	2					ASHLEE	PROPOSED	4/26/2013	
± 002	2 [CFE~EQU	[CFE~EQU	FIBER CIR	6					ASHLEE	PROPOSED	4/26/2013	
± 002	4 [CFE~IT E	[CFE~IT E	FIBER CIR	2					ASHLEE	PROPOSED	4/26/2013	
± 002	7 [CFE~EQU	[CFE~EQU	FIBER CIR	2					TARA	PROPOSED	4/26/2013	
± 002	GCFE~EQU	[CFE~EQU	FIBER CIR	2					TARA	PROPOSED	4/26/2013	
± 002	GEE~EQU	[CFE~EQU	FIBER CIR	2					TARA	PROPOSED	4/26/2013	
± 003	CFE~IT E	[CFE~IT E	FIBER CIR	2					TARA	PROPOSED	4/26/2013	
⊞ 003	I [CFE~EQU	[CFE~EQU	FIBER CIR	2					ASHLEE	PROPOSED	4/26/2013	
E 002	Record 1 of 299		CTOCO CTO	2					TADA	DDODOCED	A/16/1012	



Explanation

This is the Circuits view. Circuits are collections of cables. In most cases they include jumpers between panels and Backbones. Circuits consist of a set of ordered elements and a strand count.

This grid contains a Visualizer that lets you see the data in graphical form. The Visualizer associated with this grid will create a functional diagram of the selected Circuit.



Prerequisites

Creation of at least one Circuit

Related Topics

Circuits 143

Combine Circuits

Grid Basics 79

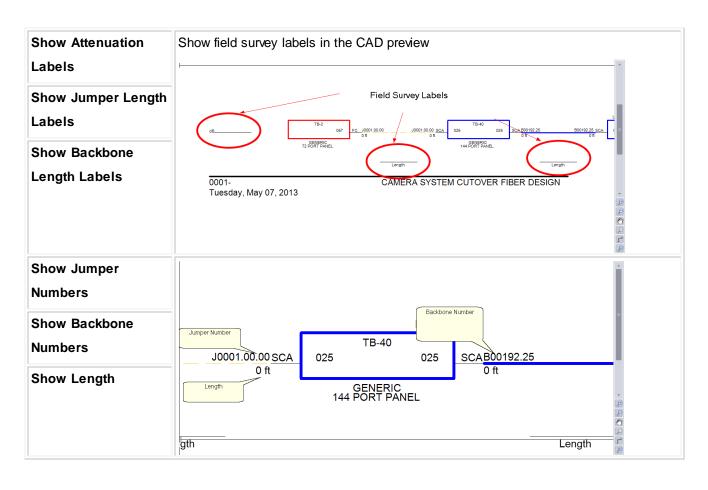
Item	Description
Search	Search the collection for the search term.
Find All	Clear the search field and return all records.
Tools	
Attach Document	Any document can be attached to any record. This is useful for storing cut-sheet data, test data, and images.
Rename Circuit	Change the name of the Circuit
Output All Selected Circuits	Uses the grid selection to determine which Circuits to write out to files.
Combine Circuits	Displays the <u>Combine Circuits</u> 167 dialog.

Data Visualization Settings	Visualization					
Terminal	Ý	Location Marker Spacing				500 🗘
Cable Number Text Ht	25 🗘	Location Marker Text Ht				25 🗘
Vertical Spacing 1/100 DU	1	Location Marker Color	(144,238,144)			•
Center Label Offset	H <u>F</u> 0,0,0 -	Location Marker Pen Width				10 🗘
SysName Label Offset	HI 0,0,0 -	SysName Rotation Angle	45 45			•
SysName Text Ht	25 🗅	Show Dot Direction Color		Junction Dot Radius		12 🗘
Port Info Format String	{0}>{1}	Show SysNames		🗸 Ignore Cables Between	Same Location	
Cable Text Format String		Color By Signal Type		Cable Color (0,0,2		Ψ
Show All Locations		Collapse Multicore Cables	to Single Line			
109.1 109.1.1 109.1.12 109.1.12 109.DESK 109.DESK 109.DESK 109.DESK 109.DESK 109.DESK 109.DESK 109.DESK 109.LET 110.1.12 112.1.12	Up Down					
Title Block						
Text Height 1/100 DU	ro * 1	Title Block Goes HereAnd	Here			
Show Time Stamp	30 v					
Title Location	BottomLeft					
Title Offset	HI -1,-1,0					
						Ψ.

Visualization Tab Options

Item	Description
Source, Middle and Destination Shape	Choose one of the 16 stock shapes
Source, Middle and Destination shape Width in (100th DU)	How wide is it
Source, Middle and Destination shape Color	Set the color of the shape
Source, Middle and	×
Destination shape	
Descriptor Locations	30 ÷ Location the Location
Drag the descriptor to	
the location map or to	
the Hidden Items list	
to hide.	Hidden Items Description User1 User2 User3 User3 User4 IPAddress Subnet Description Correction Correction Cancel
Backbone Color	
Jumper Color	Sets the color
Horizontal Cable	
Color	

Merge and Center	
Text in Body	TB-47 TB-47 SCA 093 093 SCA 093 SC/ GENERIC Normal Merged GENERIC 4 PORT PANEL
Text Height	controls the height of all text in the visualization.
	Layout
Max Columns	The maximum number of blocks placed before a new row is started below.
Column Spacing	The distance between blocks
Row Spacing	The Distance between rows
	Title and Comment Block
Show Title Title Position Show Time Stamp Title Text Height	TB-2 057 FC_ J0001.00.00 J0001.00.00 SCA 025 TB-40 025 B001192.25 B001192.25 SCA 025 0 72_PENTPSNEL 144 PENTPSNEL 144 PENTPSNEL <td< th=""></td<>
(100th DU) Title Offset	
Title	You can type whatever you want in this field. In addition the following variables are available: {0} = Circuit Number {1} = It System
	Misc.





Visualize Tab Options

Item	Description
Export	Export to file.
Copy To Clipboard	Copy to clipboard
Refresh	Refresh the preview.

4.2.3.3 New Circuit (ENT ONLY)

cuit Number/Name* 🔞 1001					IT System*			+ + - 0	ustomer chris	_000	- + -
and Count*				2 🗘	In Service Date	7/6/2015					
Origin* (named equipment)	First Enter	r the Originating Equipment		* + ¢	Final Destination	* (named equipment)		Then Me			* + (
Origin* CFE				Ţ	O Final Destination	* CFE					
Build Circuit Path Finder Preview											
Jumper From Equipment					*	Jumper to Equipment	Dr. Jan - J	ue is null]			* + ¢
			Le	ength 0	Ŧ		LEcitvai	ue is hulij			****
From Ports		Show All Outputs				To Ports					
		Name				Name					
			1011			100					
Dress	Remove	Add Morizontal Same	ant and		uuuu dd Tumper	Add Victual Sacra	ant	Add Baddoone	Serment	Navt	Lact
Prev Incorrect Cables in Const	Remove	Add Horizontal Segme	nt [A	umu dd Jumper	Add Virtual Segme	ent	Add Backbone	Segment	Next	Last
Prev Proposed Cables in Circuit CableNo Src Equip	Remove Src Port	Add Horizontal Segme	nt SRCLoc		dd Jumper	Add Virtual Segme		Add Backbone : tStrandNumber Ck			Last
Proposed Cables in Circuit					dd Jumper						

Database > Circuits [File > New]

Commandline: st

Explanation

This tool provides a means but which to create a new circuit. Circuits can either be assembled manually by follow the paths of panels through Backbones and jumpering to the next element of the first and last elements may be defined and then handed to the Path Finder tool which will find and present candidate routes.

Prerequisites

1. Backbones added.

Related Topics

4.2.3.4 New Backbone (ENT ONLY)

Mode							
New Backbone Backbone ID	1001 🗘 B01001	O Use Existing Available	Sele	ct Existing Backbone	Starting Number Se	lect an available cable	
From		Cable Type	- +	То			
ocation Filter	•	Cable Type Info Label		Location Filter			
atch Panel ID	* + e			Patch Panel ID			* + i
vailable Ports				Available Ports			
Name Type	Conn From/To			Name	Туре	Conn	From/To
		Add and Close Apply	Cancel				

Database > Backbones [File > New]

Commandline: none

Explanation

Create a new Backbone

Prerequisites

1. None

Related Topics

<u>Backbones Grid</u>42के <u>Backbones</u>गि2के <u>Grid Basics</u> 79ी

4.2.3.5 Equipment List

							Search	Find All		
										Changes to Ripple Across Project
Sheet	CableNo	 Src SysName 	DestSys 1	SRCPin	DestPin	SRCLoc	DestLoc	SRCO	nn Desto	ionn
٩										
E EDIT_1_AUD.dwg	A-1011-	PA-01	SPK-02	R	IN	109.1.12	109.RIGHT	x	Ban	
EDIT_1_AUD.dwg	A-1012-	PA-01	SPK-01	L.	IN	109.1	109	X	Ban	
EDIT_2_AUD.dwg	A-1015-	PA-02	SPK-04	R	IN	112.1.12	112.RIGHT	x	Ban	
EDIT_2_AUD.dwg	A-1016-	PA-02	SPK-03	L.	IN	112.1.12	112.LEFT	x	Ban	
EDIT_1_CTL.dwg	CTL-1001-	I/F-01	SP-01	RS 422	RS422-2	109.DESK	EDIT 1.WALL	D9	9D	
E EDIT_2_CTL.dwg	CTL-1002-	I/F-02	SP-02	RS 422	RS422-2	112.DESK	EDIT 2.WALL	D9	9D	
E ROUTER.dwg	DV-1041-	VP8-01	SP-01	B-01	SDI RTR O	ROOM 110.4.30	EDIT 1.WALL	8	В	
E ROUTER.dwg	DV-1042-	VPB-01	SP-02	B-02	SDI RTR O	ROOM 110.4.30	EDIT 2.WALL	в	В	
EDIT_1_VID.dwg	DV-1049-	Embedder-01	SP-01	SDI W/Audio	SDI RTR I	109.1.1-2	EDIT 1.WALL	8	В	
E EDIT_2_VID.dwg	DV-1055-	Embedder-02	SP-02	SDI W/Audio	SDI RTR I	112.1.1-2	EDIT 2.WALL	8	В	

Databases > Equipment List

Commandline: sys

Explanation

This is the main Equipment List of all SysNames in the project. You can edit and ripple your changes from here. This grid contains a Visualizer that lets you see the data in graphical form. The Visualizer associated with this grid will create a system snapshot of the selected SysName.

	GENERIC 24 PORT PANE	EL				
	ACM1-1					
SCA	001	001	SCA	B00118.01	B00118.01007	ACM5-2
SCA	002	002	SCA	B00118.02	B00118.02005	
SCA	003	003	SCA	B00118.03	B00118.03	
SCA	004	004	SCA	B00118.04	B00118.04 <u>010</u>	Асмь-2
SCA	005	005	SCA	B00118.05	B00118.05pt1	
SCA	006	006	SCA	B00118.06	B00118.06012	ACM5-2
					- (T

443

Prerequisites

Assigned SysNames

Related Topics

<u>Assign SysName</u>34री <u>Grid Basics</u>79ी

Item	Description
Search	Search the collection for the search term.
Find All	Clear the search field and return all records.
Ripple List	Changes you have made that may need to be rippled across the drawing set. The ripple will occur after you save the grid to the database. Note: you do not need to ripple changes that do not appear in a drawing. For example if you change the Cable Type Manu and Cable Type fields, neither of those fields have a corresponding display in a drawing. So no ripple is required to keep the drawing in sync with the database. If you are unsure - ripple.
Tools	
Attach Document	Any document can be attached to any record. This is useful for storing cut-sheet data, test data, and images.
Slurp Locations	Collect all location data from the Equipment list and populate the Locations table with it.

Data Visualization Settings	Visualization			
Appearance				
Terminal		▼ Ver	tical Pin Spacing 1/100 DU	100 🗘
Vise Last Display Order if 5			ly Width	500 \$
Vise Last Saved Appearan			t Data Source	•
			From Equipment Lib O From Cables Table	
Title Block		_		
🗹 Enable				
Text Height 1/100 DU	25	title	Your Title Goes Here.It Can Be Multiline.	*
Show Time Stamp				
Title Location	BottomLeft	•		
Title Offset	H <u>T</u> -100,-100,0	•		
Misc				Ψ.
MISC				

Visualization Tab Options

Item	Description
Terminal	Select the terminal to which we will attach the cables.
Vertical Pin Spacing	How far apart vertically are the ports.
1/100 DU	
Use Last Display	
Order if Set	
Use Last Saved	Where is the SysName label positioned with reference to the end points of the polyline
Appearance	that represents the cable.
Body Width	The text height of the SysName label.
Port Data Source	Pull the port data from the Equipment Library which will show all available ports as
	defined in the Equipment Library or pull port data from the Cable table which will show
	only ports which have cables attached.
Title Block Enable	Title Block stuff
Text Height 1/100 DU	

Title Location
Title Offset
Title

	GENERIC 24 PORT PANE	L				
	ACM1-1]			
						ACM5-2
SCA	001	001	SCA	B00118.01	B00118.01007	
SCA	002	002	SCA	B00118.02	B00118.02008	
SCA	003	003	SCA	B00118.03	B00118.0300	ACM5-2
SCA	004	004	SCA	B00118.04	B00118.04 ₉₁₀	
SCA	005	005	SCA	B00118.05	B00118.05p11	ACM5-2
					āca.	
SCA	006	006	SCA	B00118.06	B00118.06012	- ()
	~~~	~~~				Т

Item	Description
Export	Export to file.
Copy To Clipboard	Copy to clipboard
Refresh	Refresh the preview.

#### 4.2.3.6 Cables

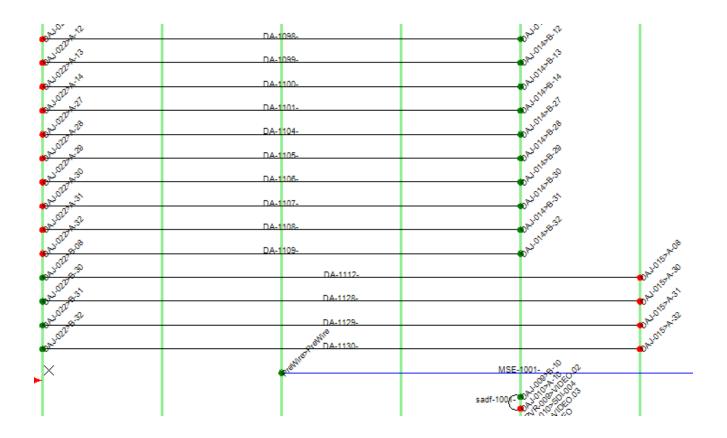
Set description of set	earch							Search	Find All		
Image: Constraint of the second sec											Changes to Ripple Across Project
B EDT_1_MD.dvg         Av32:         Pk4:         PK4:         PK4	Sheet	CableNo	<ul> <li>Src SysName</li> </ul>	DestSys	SRCPin	DestPin	SRCLoc	DestLoc	SRCConn	DestConn	
B EDT_1_MD.dvg         Av32:         Pk4:         PK4:         PK4	٩										
BEDT_JAUDukg         AND15-         PAQ         PKQ         PKQ         N         12.1.12         12.1307ff         K         Back           BEDT_JAUDukg         AND15-         PKQ         PKQ         N         12.1.12         12.107f         K         Back           BEDT_JAUDukg         Ch-1002-         PKQ         K         N         12.1.12         12.107f         K         Back           BEDT_JAUDukg         Ch-1002-         PKQ         K         S422         0.05EX         EDT INML         D         M           BEDT_JCL.ndvg         Ch-1002-         PFQ         K         S422         0.05EX         EDT INML         D         M         M           BEDT_JELANG         Ch-1002-         PFQ         K         S212         S422         12.025K         EDT INML         D         M         M           BEDT_JELANG         Ch-1002-         PFQ         S121         S21100         EDT INML         S         B           BEDT_JELANG         Ch-1002-         PFQ         S210         S21100         EDT INML         S         B           BEDT_JELANG         Ch-1002-         EDT INML         S         B         B         B           BED	EDIT_1_AUD.dwg	A-1011-	PA-01	SPK-02	R	IN	109.1.12	109.RIGHT	х	Ban	
B EDT	EDIT_1_AUD.dwg	A-1012-	PA-01	SPK-01	L	IN	109.1	109	x	Ban	
BIOT_LCR.dwg         C11-001-         (M-1)         9P-01         85-42         20ACBK         DITL TANUL         OP         AD           BIOT_LCR.dwg         C11-001-         (M-0)         69-02         85-02         162024         DITL TANUL         OP         AD           BIOT_LCR.dwg         C1-301-         (M-0)         69-02         85-02         162285K         DITL TANUL         D         AD           BIOT_LCR.dwg         C1-304-         M-04         SIGTAR         ROM 10.4-30         EDITL VAUL         B         B           BIOT_LCR.dwg         C1-104-         M-04         SIGTAR         SIGTAR         SIGTAR         BIOT_LVR.dwg         B         B           BIOT_LVR.dwg         C1-304-         M-04         SIGTAR         SIGTAR         BILL TANUL         B         B	EDIT_2_AUD.dwg	A-1015-	PA-02	SPK-04	R	IN	112.1.12	112.RIGHT	х	Ban	
BE EDT 1, Ch.dmg         Ch.1002-         UF 402         94-02         85-402-         12.0285K         EDT 2 INALL         D9         90           BE ADTER.dmg         0r.1041-         VP61         SP-01         63/10         DOM1 10.4.30         EDT 2 INALL         B         B           BE ADTER.dmg         0r.1042-         VP61         SP-02         S02 KTR         00041 10.4.30         EDT 2 INALL         B         B           BE ADTER.dmg         0r.104-5         Medder-01         S02 KTR         00.011 10.4.30         EDT 2 INALL         B         B	EDIT_2_AUD.dwg	A-1016-	PA-02	SPK-03	L	IN	112.1.12	112.LEFT	x	Ban	
B ROUTES.dvg         0r40H-         VP-01         SP-01         5-01         SOCHTRO         DEDUT LINALL         9         8           B ROUTES.dvg         0r40H-         VP-01         SP-02         SOCHTRO         ROOM 100.430         EDIT LINALL         9         9           B ROUTES.dvg         0r40H-         VP-01         SP-02         SOCHTRO         ROOM 100.430         EDIT LINALL         9         9           B ROUTES.dvg         0r40H-         VP-04         SP-02         SOCHTRO         ROOM 100.430         EDIT LINALL         9         9	EDIT_1_CTL.dwg	CTL-1001-	I/F-01	SP-01	RS 422	R5422-2	109.DESK	EDIT 1.WALL	D9	9D	
B ROUTER.dvg         01/10/20         VP 601         SP-02         6/2         SCI RTR O         ROCM 10.4.30         EDIT 2./VALL         5         6           B EXTVTD.dvg         01/10/40         Embedder 41         SP-01         SXI RTR O         SXI RTR O         EDIT 2./VALL         B         5         5	EDIT_2_CTL.dwg	CTL-1002-	I/F-02	SP-02	RS 422	RS422-2	112.DESK	EDIT 2.WALL	D9	9D	
H EDT_1_VID.dwg DV-1049- Embedder-01 SP-01 SDI W/Audo SDI RTR I 109.1.1-2 EDTT 1.WALL 8 8	E ROUTER.dwg	DV-1041-	VPB-01	SP-01	B-01	SDI RTR O	ROOM 110.4.30	EDIT 1.WALL	8	В	
	E ROUTER.dwg	DV-1042-	VPB-01	SP-02	B-02	SDI RTR O	ROOM 110.4.30	EDIT 2.WALL	8	В	
III EDT_2_VID.dwg         Dr-8055-         Bebesser-02         SOLW/Audo         SOLWTR I         112.1.1-2         EDT_2_WALL         B         B	E EDIT_1_VID.dwg	DV-1049-	Embedder-01	SP-01	SDI W/Audio	SDI RTR I	109.1.1-2	EDIT 1.WALL	В	В	
	E EDIT_2_VID.dwg	DV-1055-	Embedder-02	SP-02	SDI W/Audio	SDI RTR I	112.1.1-2	EDIT 2.WALL	8	В	

Databases > Cables Commandline: cg

## Explanation

This is the main Cables table view. You can print, export and edit this view. Some fields are marked read only because they inherit their data from other tables. Changes to those fields should be done in the other tables then rippled into this table.

This grid contains a Visualizer that lets you see the data in graphical form. The Visualizer associated with this grid will create a Ladder diagram of the selected cables.



#### Prerequisites

Cable numbers assigned in a drawing.

#### **Related Topics**

<u>New Cable</u>เรียง <u>Grid Basics</u>เ79ไ

Item	Description
Search	Search the collection for the search term.
Find All	Clear the search field and return all records.

Ripple List	Changes you have made that may need to be rippled across the drawing set. The ripple
	will occur after you save the grid to the database.
	Note: you do not need to ripple changes that do not appear in a drawing. For example if
	you change the Cable Type Manu and Cable Type fields, neither of those fields have
	a corresponding display in a drawing. So no ripple is required to keep the drawing in
	sync with the database. If you are unsure - ripple.
Expert Mode	Removes the read-only flags and puts the grid in a completely editable state. Not for
	beginners.
Add Many	Only available in Expert Mode this tool adds blank records to the table that you can
	edit as a spreadsheet.
Tools	
Repair Equipment	Scans the Cables table for SysNames then compares with the Equipment List.
List	Missing SysNames are then added to the Equipment List.
Attach Document	Any document can be attached to any record. This is useful for storing cut-sheet data,
	test data, and images.

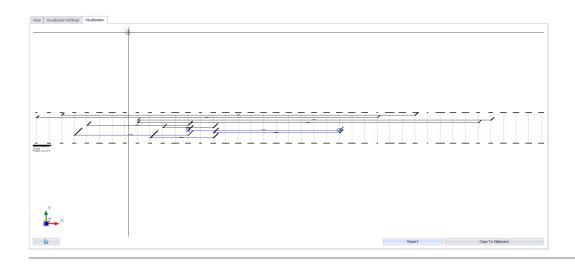
Data Visualization Settings	Visualization					
Terminal		Location Marker Spacing				500 🗘
Cable Number Text Ht		Location Marker Text Ht				25 🗘
Vertical Spacing 1/100 DU		Location Marker Color	(144,238,144)			•
Center Label Offset		Location Marker Pen Width				10 🌲
SysName Label Offset		SysName Rotation Angle	O 45			-
SysName Text Ht		Show Dot Direction Colo	r	Junction Dot Radius		12 🌲
Port Info Format String	{0}>{1}	Show SysNames		Ignore Cables Between S		
Cable Text Format String	(0)	Color By Signal Type		Cable Color (0,0,25	5)	
Show All Locations		Collapse Multicore Cable	s to Single Line			
109.1 109.1.12 109.1.12 109.DESK 109.DESK 109.DESK 100.DESK LEFT 110.DESK LEFT 112.1.12 112.1.12 112.1.12	Lipo Down					
Title Block						
Enable						
Text Height 1/100 DU	50 \$	itle Title Block Goes HereAn	Here			*
Show Time Stamp						
Title Location	F BottomLeft					
Title Offset	H <u>T</u> -1,-1,0 *					
						v

# Visualization Tab Options

Item	Description
Terminal	Not yet implemented.
Cable Number Text Height	The text height of the Cable Number element
Vertical Spacing 1/100 DU	How far apart vertically are the cables.
Center Label Offset	Where is the center label positioned with reference to the center of the polyline that represents the cable.
SysName Label Offset	Where is the SysName label positioned with reference to the end points of the polyline that represents the cable.
SysName Text Hit	The text height of the SysName label.

Port Info Format	The following variables can be used along with the /n new line character to format the
String	port info:
	{0}SysName
	{1}Port
	{2}Location
	{3}Alias
	{4}Connector
	{5}Cable Number
	{6}Cable Manufacturer
	{7}Cable Type
	Example:
	Assume that the SysName is VTR-01. The PortName is VID-OUT and the Location is
	RK-10 The following Port Info Format string:
	<b>{0}&gt;{1}@{2}</b>
	Will produce the result:
	VTR-01>VID-OUT@RK-10
Cable Text Format	The following variables can be used along with the /n new line character to format the
String	Cable Text:
	{0}Cable Number
	{1}Cable Manufacturer
	{2}Cable Type
	{3}Length
	{4}Sheet
Location Marker Spacing	How far apart horizontally the vertical location markers are spaced.
Location Marker Text	
Hit	
Location Marker Color	
Location Marker Pen Width	

SysName Rotation Angle	
Show Dot Direction Color	Display a green dot on the source side and a red dot on the destination side of the cable.
Show SysNames	Show/Hide the SysName.
Color By Signal Type	Inherit cable color by Signal Type or set a single color for all cables.
Collapse Multi-core Cables to Single Line	Multi-core cables are represented by many records in the Cables table. You can choose to display a cable for each or collapse to a single cable.
Title Block Enable Text Height 1/100 DU	
Title Location	Title Block stuff
Title Offset	
Title	



Item	Description
Export	Export to file.

Copy To Clipboard	Copy to clipboard
Refresh	Refresh the preview.

#### 4.2.3.7 Locations

ag a column hea	der here to group by that	: column						Changes to Ripple Across Project
Campus	<ul> <li>Building</li> </ul>	▲ Floor	A Room	Rack 🔺	Description	Qualified Location (	FigureHandle	
							A	
				ab		ab		
AMU				ab		AMU.ab		
AMU		BLDG 121	ROOM 312			AMU.BLDG 121.RO		
AMU	ANNEX 1	1ST FLOOR	101			AMU.ANNEX 1.1ST		
AMU	ANNEX 1	1ST FLOOR	102			AMU.ANNEX 1.1ST		
AMU	ANNEX 1	1ST FLOOR	102			AMU.ANNEX 1.1ST		
AMU	ANNEX 1	1ST FLOOR	103			AMU.ANNEX 1.1ST		
AMU	ANNEX 1	1ST FLOOR	111			AMU.ANNEX 1.1ST		
AMU	ANNEX 1	1ST FLOOR	121			AMU.ANNEX 1.1ST		
AMU	ANNEX 1	1ST FLOOR	122			AMU.ANNEX 1.1ST		
AMU	ANNEX 1	1ST FLOOR	123			AMU.ANNEX 1.1ST		
AMU	ANNEX 1	1ST FLOOR	124			AMU.ANNEX 1.1ST		
AMU	ANNEX 1	1ST FLOOR	135			AMU.ANNEX 1.1ST		
AMU	ANNEX 1	1ST FLOOR	150			AMU.ANNEX 1.1ST		
AMU	ANNEX 2	1ST FLOOR	104			AMU.ANNEX 2.1ST		
AMU	ANNEX 2	1ST FLOOR	105			AMU.ANNEX 2.1ST		
AMU	ANNEX 2A	1ST FLOOR	111			AMU.ANNEX 2A.1S		
AMU	ANNEX 2A	1ST FLOOR	112			AMU.ANNEX 2A.1S		
AMU	ANNEX 2A	1ST FLOOR	113			AMU.ANNEX 2A.1S		
AMU	ANNEX 2A	1ST FLOOR	114			AMU.ANNEX 2A.1S	-	

#### **Databases > Locations**

Commandline: showprojectlocationsgrid

### Explanation

This is the main Locations table view. You can print, export and edit this view. Changes to this grid can be rippled throughout the project.

Remember that the only bit of data WireCAD actually uses from this grid is the **QualifiedLocation**.

#### Prerequisites

None

Related Topics <u>New Location Dialog</u> [382] <u>Grid Basics</u> [79[°]]

### Form Options

Item	Description
Search	Search the collection for the search term.
Find All	Clear the search field and return all records.
Ripple List	Changes you have made that may need to be rippled across the drawing set. The ripple will occur after you save the grid to the database.

Reference	455
-----------	-----

#### 4.2.3.8 Named Paths

			End 1RackSpa	Click here to a	None			PathLengthV	PathLength	
					None					
						2 None	0.2	5 Feet	7!	Rack 1 to Edit 1

Databases > Named Paths Commandline: shownamedpathsgrid

### Explanation

The Named Paths grid is an organizational tool to keep track of key distances. We name a path and give it a distance and other factors to determine. You can use it as a reference, as well as a length calculator in the Assign Cable Numbers dialog.

Prerequisites

None

Related Topics Assign Cables Grid Basics

#### 4.2.3.9 ToDo

anation						
ag a column header here						
Item	Description	AssignedTo	Status	ExpectedCompletionDate	CompletedDate	Priority
			Click here to add a ne	w row		
Some Task	That needs to get done	Wilma Flintstone	In Progress	7/7/2015 12:00:00 AM	7/6/2015 12:00:00 AM	<ul> <li>Like Now Man</li> </ul>
🗝 🔍 Record 1 of 1	> >> >> = ▲ √ × →					

#### Databases > Todo List Commandline: tdl

## Explanation

A To Do list. You can define the data that fills the following dropdowns in the <u>Todo List Settings</u> [271] panel:

- Assignees
- Statuses
- Priorities

#### Prerequisites

An active project.

#### **Related Topics**

<u>Todo List Settings</u>विगी <u>Grid Basics</u>79ी

#### 4.2.3.10 Drawings

DrawingName	CreatedOn	ModifiedOn	ModifiedDate	DrawingPath	<ul> <li>DrawingUser1</li> </ul>	Status	CheckedOut	Pr
asdf.dwg			Mouneubate		- Drawinguser I	Status		6
-		5/28/2015 12:48:25 PM		\Drawings\asdf.dwg				6
FP3.dwg		7/2/2015 4:11:48 PM		\Drawings\FP3.dwg				
fp3w_locations.dwg		7/6/2015 1:20:43 AM		\Drawings\fp3w_locations.dwg				6
		7/3/2015 10:29:42 AM		\Drawings\plan view.dwg				6
racks too.dwg		6/23/2015 4:35:16 PM		\Drawings\racks too.dwg				6
⊞ racks.dwg	5/30/2015	6/20/2015 2:10:39 PM		\Drawings\racks.dwg				6
⊞ test1.dwg	5/28/2015	7/6/2015 1:16:53 PM		\Drawings\test1.dwg				6
test1.pdf	6/23/2015	7/4/2015 12:02:33 PM		\Drawings\test1.pdf				6
Test2.dwg	7/1/2015 8	7/6/2015 1:16:53 PM		\Drawings\Test2.dwg				6
WireCAD Drawing.dwg     ■	5/31/2015	6/30/2015 8:15:48 AM		\Drawings\WireCAD Drawing.dwg				e

#### Project Explorer> Project Databases > Drawings Commandline: sdg

## Explanation

This is the list of drawings in the Project\Drawings folder tree. The following changes in the Drawings table have occurred in WireCAD v8:

- The DrawingsPath has changed from absolute to relative.
- The tool now scans for and lists pdf files.
- The dwg and pdf file is embedded in the database for portability.

NOTE: to rename a drawing use the function in the Project Explorer. Right-click a closed drawing and select the context menu item Rename Drawing.

#### Prerequisites

An active project.

#### **Related Topics**

Grid Basics 79

### 4.2.4 Report Forms

#### 4.2.4.1 Print Preview

BRADY1X1335D.repx - WireCAD8 - ENTERPRISE - Curren			- @× • ? # I & i
PROJECT View Database Plugins Reports Print Previe		) N 🛛 🗄 🍳 Q Q 🍓 🛛	
	Margins Orientation Size Find Bookmarks First Previous Ne Page Page Page Page Page Page Page Page	xt Last Many Pages Zoom Out Zoom Zoom In Page Color Wat	ermark Export E-Mail To • As •
	Setup A Navigation	Zoom Page Backgro	und Export Close
Start Page X Report X Report X Discrepancies X ft	p3w_locations.dwg × 1x2_5NO_LOGO.repx ×		
			0
		•	
DA-1001-	DA-1002- DA-1003-	DA-1004- DA-1005-	
Carto C	anto anto		
		•	
DA-1006-	DA-1007- DA-1008-	DA-1009- DA-1010-	
	anto anto	anje anje	
4			· · · · · · · · · · · · · · · · · · ·
Page 1 of 43			100% 🗩 🕂

Visible only when the active environment is a report.

# Explanation

This is the default view that loads when a report is loaded. From here you can determine the number of pages to print and to which device.

## Form Options

Menu Item	Description
Save	Save the rendered document to the native print document format (.prnx). NOTE: this is the rendered document not the report design. The report design can only be saved from the Report Designer tab.
Print	Print with options.

Quick Print	Print to the default printer.				
Options	The Print Options dialog.				
Parameters	Show the Parameters pane (if applicable to the report).				
Header/Footer	Edit the Header/Footer if applicable to the report.				
Scale					
Margins	Obvious				
Orientation	Obvious				
Size					
Find					
Bookmarks					
First Page	Obvious				
Previous Page					
Next Page					
Last Page					
Select					
Pan					
Zoom					
Many Pages	Obvious				
Zoom Out					
Zoom Percent					
Zoom In					
Page Color	Set the page background color				

Watermark	Define the report Watermark. Not visible at all product levels
Export To	Obvious
E-Mail As	Divious

#### 4.2.4.2 HTML View

Visible only when the active environment is a report.

BRADY1X1335D.re	epx - WireCAD8 - ENTERPRISE - Curren		Cable Data Selector		– æ× • ? ⊕ ⊡ & i
Back         Forward         Image: Constraint of the section of the s	Find				• WireCAD
Start Page X Report X Re	eport 🛪 Discrepancies 🛪 fp	3w_locations.dwg × 1x2_5NC	LOGO.repx ×		
DA-1001-	DA-1002-	DA-1003-	DA-1004-	DA-1005-	^
DA-1006-	DA-1007-	DA-1008-	DA-1009-	DA-1010-	
• WIN: DA-1011- Done	MIN DA-1012-	WINT DA-1013-	WIRE DA-1014	WIRI DA-1015-	100% ⊖ → →

## Explanation

This is the report rendered to html. The controls are self-explanatory.

#### 4.2.4.3 Report Designer

Visible only when the active environment is a report.

BRADY1X133SD.repx - WireCAD8 - ENTERPRISE - Cu	rrent Project: [just a test]							- 8 ×
PROJECT View Database Plugins Reports Print Pr	eview HTML View Report Designer Toolbox	Cable Data Selector						🔺 ? # 🗉 🖉 i
- D 💼 💾 🗐 🐰 🗗 💼 🔈	Times New Roman • •	Q  = \$ =		Q	<b>Q Q</b>			
New Report Open Save Save All Cut Copy Paste Undo	Redo 9.75 ▼ B I <u>U</u> ≡ Ξ Ξ Ξ	$T \leftrightarrow L$		Zoom Out	Zoom Zoom In	Windows		
Report Edit	Font	Alignment	Layout		Zoom	View	Scripts	
Start Page X Report X Report X Discrepancies X	fp3w_locations.dwg × 1x2_5NO_LOGO.repx	x						
Tool Box 4 ×						Re	eport Explorer	□ # X
	. 1 1 2 1 3	4	1 * * * 5 * * * 1 * * * 6 * * *	1 + + + 7		• 8	눰 blankReport1	
Standard Controls ^							▶ 🗐 Detail 📝 Styles	
Pointer ·							Formatting Ru	ules
A Label	[CableNo]					-	Components	
	/						背 bindingSou	urce1
Check Box								
A Rich Text			Space for repeating co					
Picture Box			Controls placed here will be pri		ectly.			
	ntable area							
Panel							💫 Report Explore	r Property Grid
Table							-	
Line							eld List	• # ×
							DataAccess     AccountIn	1foCollection
							BomDetail	
IIIII Bar Code 4			)			+		ductorsCollection
Zip Code								ormatMasterCollection
Lij ^J bindingSource1							CablesColl	lection
Group and Sort						×	ChasesCo	
	In the New Deven				4	^	GircuitsCo     DefaultDis	splaySettingsCollection
🔓 Add a Group - 🔨 Add a Sort - 💥 Delete 🏻 🎯 Move						_	Discrepane	cyReportCollection
Field Name Sort Order S	how Header Show Footer							evisionsCollection
🖙 Group and Sort 🛛 🚱 Scripts Errors						4	DrawingsC	
blankReport1 { PaperKind: Letter }							100% 🤆	$\rightarrow$ $\bigcirc$ $\bigcirc$ $\bigcirc$

## Explanation

Here we design the report. The menus are obvious so we won't bother. What may not be obvious the the Banded Report design and the Smart Tag. Smart Tags will be displayed on entities that are selected (if available) like so:

CAD [CableNo]	
non printable area	

Smart tags can be expanded to so entity specify settings. Here we see properties specific to the Detail Band:

🛛 🗐 Detail 🔍	Detail Tasks		
	Edit and Reorder Ba	nds	
	Sort Fields	(Collection)	•
	Multi-Column Mode	Use Column Width	-
	Multi-Column Layout	First Across, then Down	•
	Column Count	1	\$
	Column Width	180	
	Column Spacing	0	
	Formatting Rules	(Collection)	•
	Page Break	None	-
	Keep Together		

#### **Related Topics**

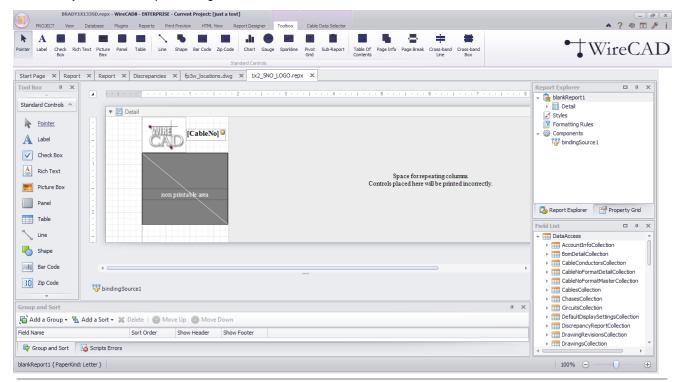
### A discussion on report design can be found here 33.

Menu	Sub	Description
ltem	Menu	
New	New	A new blank report. You are starting from scratch.
Report	Report	

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	New with Wizard	A new report using the New Report Wizard. We recommend finding an existing report that is close to the finished product and modifying that after a save as.
Open		
Save	Save	
	Save As	
Save All		
Cut		Obvious
Сору		
Paste		
Font		The font settings for the currently selected object(s).
Alignme nt		The alignment settings for the currently selected object(s).
Layout		Tools to position and arrange the currently selected object(s).
View		Zoom the designer
Scripts		A collection of scripts associated with this report.

#### 4.2.4.4 Toolbox



Visible only when the Report Designer Tab is active.

Any of these tools can be added to the report under design.

Menu Item	Description
Pointer	Selection tool
Label	The most common tool. Can be used to display static text or if the text is held in square braces[]. For example: a label with the caption S:[SRCSys]>[SRCPin] will render S:SomeSrcSys>SomeSrcPin once for every record in the collection.
Check Box	A Check Box is used to display True/False or Checked/Unchecked/Indeterminate values in a report.
Rich Text	The Rich Text control allows you to display formatted text in your report. It can represent static or dynamic text, or both. In addition to the capability to embed plain text into your report (using the Label control), you may need to display RTF or HTML content as well. WireCAD does not use RTF or HTML natively but there is no reason you could not put formatted text in a user field.

Picture Box	Picture Box is used to embed static (stored along with the report definition) or
	dynamic (obtained from a data source) images into a report.
	It can display images of various file formats: BMP, JPG, JPEG, GIF, TIF, TIFF, PNG, ICO, DIB, RLE, JPE, JFIF, EMF, WMF.
Panel	The <b>Panel</b> control is a container that frames separate report controls to allow them to be easily moved, copied and pasted, and visually unites them in the report preview (with borders or a uniform color background).
Table	The <b>Table</b> is used to display tabular information in a report.
	Note
	Table reports should not be confused with hierarchical master-detail reports or cross- tab reports.
	You can create two tables simultaneously, e.g., one for showing column titles in the Page Header, and the other for showing regular information in the Detail band.
Line	The <b>Line</b> control draws a line of a specified direction, style, width and color. It can be used for both decoration and visual separation of a report's sections. Note that the Line cannot cross bands.

Shape	The reporting engine provides you with the capability to embed shapes into your					
	reports. You can simply add an Shape control to a report, choose one of the available					
	shape types, and then print or expor	shape types, and then print or export this report.				
	The following shapes are available:					
	• Arrow					
	• Brace					
	Bracket					
	• Cross					
	• Ellipse					
	• Line					
	Polygon					
	Rectangle					
	• Star					
Bar Code	A Bar Code object. The supported b	par code types are:				
	1D Barcode Types	2D Barcode Types				
	Codabar	ECC200 - Data Matrix				
	Code 11 (USD-8)	GS1- Data Matrix				
	Code 39 (USD-3)	Intelligent Mail				
	Code 39 Extended	PDF417				
	Code 93	QR Code				
	Code 93 Extended					
	Code 128					
	EAN 8					
	EAN 13					
	GS1-128 - EAN-128 (UCC)					
	GS1 - DataBar					
	Industrial 2 of 5					
	Interleaved 2 of 5					

	Matrix 2 of 5		
	MSI - Plessey		
	PostNet		
	UPC Shipping Container		
	Symbol (ITF-14)		
	UPC Supplemental 2		
	UPC Supplemental 5		
	UPC-A		
	UPC-E0		
	UPC-E1		
Zip Code	<ul> <li>The <b>Zip Code</b> control transforms its content into a zip code.</li> <li>To specify the text for the control, use the ZipCode.Text property.</li> <li>Note that the Zip Code control can only display numeric characters and dashes. Other characters are displayed as empty zip boxes.</li> </ul>		
Chart	The <b>Chart</b> control visualizes the series of points using the available 2D chart types or 3D chart types. The chart type is defined via the View property of a series. And, a single chart can display multiple series, if their view types are compatible. A <b>Chart</b> contains multiple visual elements (diagram, axes, titles, labels, strips, constant lines, etc.) and, when any of these elements is selected, its properties are shown in the <b>Property Grid</b> .		
Guage	The <b>Gauge</b> control provides you with the capability to embed graphical gauges into your report.		
Sparkline	The <b>Sparkline</b> control displays a compact chart that is commonly used to reflect the flow of data for every row in a report.		

Pivot Grid	The Pivot Grid allows you to create a pivot table, an Excel-inspired data visualization
	application for multi-dimensional data analysis. Using the Pivot Grid, large amounts of
	data can be summarized and represented in a cross-tabular format that can be sorted
	and filtered. Also, since the Pivot Grid provides customization you can freely change
	the layout of the report based on your analysis requirements, using simple drag-and-
	drop operations. It also supports drill-down (to view the underlying data for calculated
	cells).
Sub-Report	The Sub-Report control is used to embed reports into each other; this allows you to
	create Master/Detail reports (reports with hierarchically linked data).
Table of Contents	The Table of Contents control allows you to provide your report with a table of
	contents that reflects the hierarchical structure of the report bookmarks.
Page Info	The Page Info is used to display auxiliary information on report pages, such as date,
	time, page numbers or user name.
Page Break	The Page Break control's sole purpose is to insert a page delimiter at any point within
	a report.
	This control is visually represented by a short line, attached to the report's left margin.
	The Page Break control is useful when you need to insert a page break between
	controls within a report band - for example, to divide subreports, so that the second
	subreport starts printing on a new page.
	You can also insert a <b>Page Break</b> before or after a specific report band using the
	Band.PageBreak property.
Cross-band Line	Cross-band controls are used to draw lines and rectangles through several bands, as
Cross-band Box	opposed to Line and Shape controls that can be used only within a single band.
	The following two cross-band controls are available:
	Cross-band Line allows for the drawing of vertical lines, which are not restricted to a
	particular band. For example, it can be used to emphasize a report section consisting
	of multiple band areas.
	Cross-band Box allows for the drawing of rectangles through several bands. It can be
	used to encompass a report section consisting of multiple band areas.

#### 4.2.4.5 Cable Data Selector

Visible only when the active environment is a report.

A	eC.	Wi1	•											Apply	1 🗘		Clear /	ad
											-		1	A		Actions		
									1	GO.repx 🗙		ations.dwg 🗙		Discrepancies		Report 🗶	-	Start F
nn	DestCor	SRCConn	DestEl	DestLoc	SRCEI	SRCLoc	DestPin	SRCPin	DestSys		CableNoSu	CableNo	CableMask	CableNoPr	CableType	CableType	t This	
	В	В	Elevation	Location	Elevation	Location	A-01	B-01	DAJ-002	DAJ-001			\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	
	В	В	Elevation	Location	Elevation	Location	A-02	B-02	DAJ-002	DAJ-001		DA-1002-	\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	±
	В	В	Elevation	Location	Elevation	Location	A-06	B-06	DAJ-002	DAJ-001			\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	±
	В	В	Elevation	Location	Elevation	Location	A-05	B-05	DAJ-002	DAJ-001		DA-1004-	\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	÷
	в	В	Elevation	Location	Elevation	Location	A-04	B-04	DAJ-002	DAJ-001		DA-1005-	\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	÷
	в	в	Elevation	Location	Elevation	Location	A-03	B-03	DAJ-002	DAJ-001		DA-1006-	\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	÷
	в	в	Elevation	Location	Elevation	Location	A-07	B-07	DAJ-002	DAJ-001		DA-1007-	\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	+
	в	в	Elevation	Location	Elevation	Location	A-08	B-08	DAJ-002	DAJ-001		DA-1008-	\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	÷
	в	в	Elevation	Location	Elevation	Location	A-09	B-09	DAJ-002	DAJ-001		DA-1009-	\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	Ŧ
	в	в	Elevation	Location	Elevation	Location	A-10	B-10	DAJ-002	DAJ-001		DA-1010-	\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	÷
	в	в	Elevation	Location	Elevation	Location	A-11	B-11	DAJ-002	DAJ-001		DA-1011-	\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	÷
	в	в	Elevation	Location	Elevation	Location	A-12	B-12	DAJ-002	DAJ-001		DA-1012-	\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	÷
	в	в	Elevation	Location	Elevation	Location	A-13	B-13	DAJ-002	DAJ-001		DA-1013-	\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	÷
	в	в	Elevation	Location	Elevation	Location	A-14	B-14	DAJ-002	DAJ-001		DA-1014-	\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	÷
	в	в	Elevation	Location	Elevation	Location	A-15	B-15	DAJ-002	DAJ-001		DA-1015-	\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	
	в	в	Elevation	Location	Elevation	Location	A-16	B-16	DAJ-002	DAJ-001		DA-1016-	\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	
	в	в	Elevation	Location	Elevation	Location	A-17	B-17	DAJ-002	DAJ-001		DA-1017-	\w{1.6}-\d		1505A 003	BELDEN	$\checkmark$	
	в	в	Elevation	Location	Elevation	Location	A-18	B-18	DAJ-002	DAJ-001			\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	
	в	в	Elevation	Location	Elevation	Location	A-23	B-23	DAJ-002	DAJ-001			\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	
	в	в	Elevation	Location	Elevation	Location	A-22	B-22	DAJ-002	DAJ-001			\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	
	в	в	Elevation	Location	Elevation	Location	A-21	B-21	DAJ-002	DAJ-001			\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	
	в	B	Elevation	Location	Elevation	Location	A-20	B-20	DAJ-002	DAJ-001			\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	
	B	B	Elevation	Location	Elevation	Location	A-19	B-19	DAJ-002	DAJ-001			\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	
	в	B	Elevation	Location	Elevation	Location	A-19	B-24	DAJ-002	DAJ-001		DA-1023-	\w{1,6}-\d		1505A 003	BELDEN	$\checkmark$	
		0	Flavation	Location	Flavation	Location	A-25	B-25	DA1-002	DA1-001		DA-1021	hul 1 61-1d		1505A 003	BELDEN		E

### Explanation

This tool allows you to pick and choose which cable records to print without having to create a complex filter.

Simply select the records to print in the Select This field and set the number of copies to print then click the

[Apply] button

**Related Topics** 

Menu Item	Description
Reload	Reloads the data. All current selections are cleared then the data is reloaded from the Cables table.
Clear All	Uncheck all
Select All	Check all
Copies	Number of copies to print

Reference	471
Reference	471

Pad with Empty	Useful when trying to use a label on a sheet of labels that has already had some use.
Records	
Арріу	Do IT!

#### 4.2.4.6 Bill of Materials Generator

Bill of M	aterials Sna	phshot													
Snapsh	ot Name:	My Snapsho	t				🗹 Include Equipm	ent		Equipment	: Filter				··· x
							🗹 Include Cable T	ypes		Cables Filt	er				>
							🗹 Include Connec	tors							
														Generate	
Done														Generate	
Done															
				mn 🛛				x							
Cateo			Manufacturer					<u> </u>	Status	BOMUser 1	BOMUser2	BOMUser3	BOMUser4		
e Categ	jory 3	apsnot N	Manufacturer	rtem	Bill of Materials cre	ated. ta in the grid below (don't for	ant to skill Court		Status	DOMOSEI 1	bolhosel 2	bomoser 3	bolhosel 4		
*					Then open one of	the Bill of Materials reports a	nd filter for this Snapsh	not							
						ОК									
			360 SYSTEMS	-					Not Ordered						
Equip		y Snapshot		PP12232					Not Ordered						
Equip			Manufactu	Equipment			0	0	Not Ordered						
		y Snapshot v Snapshot	DELDEN	1505A	13		0		Not Ordered						
		y Snapshot y Snapshot		1505A	2		0		Not Ordered						
		y Snapshot		200Pair	789789		0		Not Ordered						
		y Snapshot		test mc 1	09709		0		Not Ordered						
		y Snapshot		9508	0		0		Not Ordered						
		y Snapshot		1505A 003			0		Not Ordered						
Cubic		y Snapshot	DEEDEN	100000000	0				Not Ordered						
Outor		y shapshot							Not ordered						

#### Reports > Generate Bill of Materials Commandline: bom

### Explanation

Before a Bill of Materials (BOM) report can display data, that data must first be generated. We generate Bill of Materials data with a Snapshot Name. The report that you run will group be Snapshot Name.

You can choose which items to count in the BOM and refine your counts by creating filters.

One of the most common misunderstandings with the BOM generator is how it deals with cable lengths. The generator sums all lengths of a give Cable Type. But what if you have specified a premade cable of 2 meter length? In this case we don't want to total the length but rather the quantity. To handle premade cables take the following steps:

- 1. Create a new <u>Cable Type</u> [391] with the cable length in the name. For example an of the shelf 2 meter HDMI cable might be named: OTS HMDI 2m. This will show up in the Cable Type field of the Cables table and further in your BOM.
- 2. When entering the Cable Length for pre made cables enter the Length as 1.

In the BOM you will then see a count of your OTS HDMI 2m cables.

#### Prerequisites

1. You will need an active project with SysNames and Cable data.

### **Related Topics**

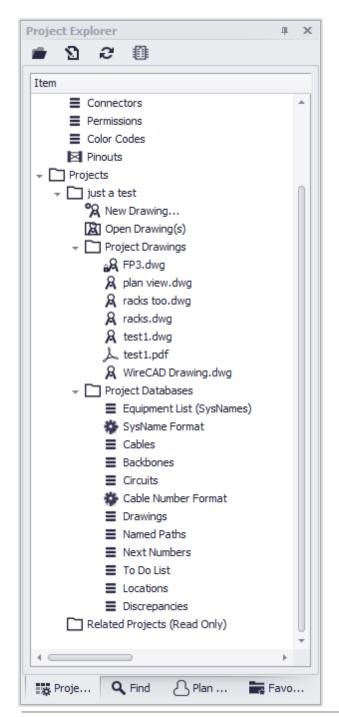
Grid Basics 79

## Form Options

Item	Description
Snapshot Name	Name is something unique that you will remember.
Include Equipment	
Include Cable Types	What to include
Include Connector Types	
Filter Equipment	Apply a filter to the set. Clicking the []
	Apply Cancel

### 4.3 Tool Panels

### 4.3.1 **Project Explorer**



View > Tool Panels > Project Explorer

**Commandline: none** 

This is the main access point to the project. From here you can:

- Open global database grids.
- Open drawing(s).
- Open Project Database grids.
- Rename drawings.

#### Prerequisites

In order to see project related information you will first have to open a project.

#### **Related Topics**

### **Tool Panel Options**

ltem	Description
Open Project Folder	Show the current project folder in a windows folder browser.
Project Properties	Show the Project Info 410 form.
Refresh	Refresh the Project Explorer.
Equipment Library	Show the Equipment Library 323.

### 4.3.2 Draw Cables

	н 3 14
Q	
Start Cable	
Point to Point Cable	
Cable Text Height (1/100 DU) 25	÷
Replace Cable with Pointers	
Manually Draw Cable	
Aux Text	
Enable	
Height (1/100 DU) 0	 ▼
Location Over	-
Variable CircuitNumber	~
Format {0}	
^ Settings	
Router X Offset (1/100 DU) 150	<b>‡</b>
Router Y Offset (1/100 DU) 100	<b>‡</b>
Default Pointer	•
Preview:	
Start Cable	
iia <b>.</b>	_

View > Tool Panels > Draw Cables

Commandline: none

The Draw Cables tool panel is only active when the current environment is a drawing. This tool allows you draw several different types of cables:

- One-to-One One output to one input.
- One-to-Many One outputs to many inputs.
- Many-to-One Many outputs to one input.
- Many-to-Many Many outputs to many inputs.
- Terminal to Point Drag a Terminal into the drawing an drop it on a connection point in the drawing. This will place the terminal on the left hand side of the block.
- Point to Terminal Drag a Terminal into the drawing an drop it on a connection point in the drawing. This will place the terminal on the right hand side of the block.

#### Prerequisites

Requires and open drawing.

Related Topics

### 4.3.3 Drawing Properties

	lic\Documents\just a test\D
Grid Space X	1.0000
Grid Space Y	1.0000
GridStyle	Dot
Limits	0.0000,0.0000,0.000
OrthoMode	
OrthoModeAxis	X, Y, Z
PolarTrack	
PolarTrackAngle	⊘ 45.0000°
PolarTrackLock	
SnapAngle	0°
SnapBase	0.0000,0.0000,0.0000
SnapMode	
SnapSpaceX	1.0000
SnapSpaceY	1.0000
Keyboard	^
OrbitActionKey	AltLeft
OsnapDialogKey	Ctrl+None
PanMouseButton	Middle
SelectionPreviewDo	Down
SelectionPreviewUpl	Up
UrlActionKey	Ctrl+None
Misc	^

**View > Tool Panels > Drawing Properties** 

Commandline: none

Provides access to the drawing properties. If no selection set exists in the drawing the general document properties are presented. If a selection exists then the common properties of all items in the selection set are displayed for edit. You may also select a single item from the selection set and edit all of its properties.

#### Prerequisites

An open drawing.

#### **Related Topics**

### **Tool Panel Options**

Item	Description
Selected Object	This combo box displays the selected object and allows you to selected individual items from the drop down.          Drawing Properties         Image:
Property grid	FradeEffect     0       Handle     Handle
	entity type.
Sort/Group/Display Descriptions/Search toolbar buttons	

Reference	481

### 4.3.4 Find

Find	џ х
Find:	× Find
Search Where	
O Active Drawing	
All Project Drawings	
🗹 Project Databases	
<ul> <li>Search Options</li> </ul>	
Show File	
Show Item Type	
^ Replace	
Replace With	
Results. Double-Click to Show	
Select All Clear Selection Results Count =	0
Replace Selected Cance	Find
¤ C… Ľ· <b>へ</b> … ⇔…	

View > Tool Panels > Find and Replace

Commandline: none

Find and replace text found in any drawing and in editable fields of the project databases. The found list will tell you the context in which the searched text appears.

#### NOTE: found text may occur in an invisible attribute.

Changing a port name on a device using the Find and Replace tool requires that you change the text in the following contexts:

- The visible attribute.
- The invisible CP_IN or CP_OUT attribute string. This is a pipe delimited string that contains the name|conn|type. You must change the name portion of this.
- Any records that exist in the Project Cables table that reference that port.

#### Prerequisites

An active project

#### **Related Topics**

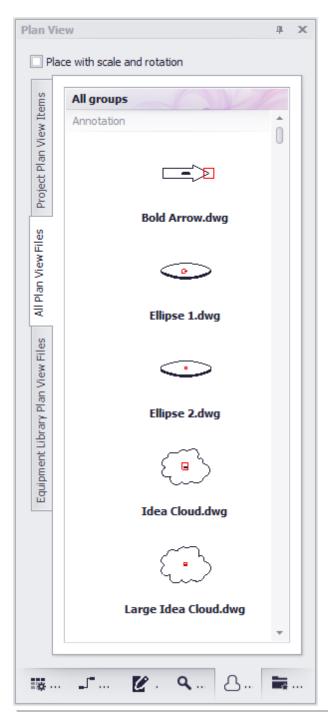
### **Tool Panel Options**

ltem	Description
Find	
Search Where	<ul> <li>Only the active drawing.</li> <li>All project drawings</li> <li>Project Equipment list, Project Cables, Project Backbones, Project Circuits.</li> </ul>
Search Options	Show/hide the file name and context
Replace With	Some text



Reference	485
-----------	-----

### 4.3.5 Plan View



View > Tool Panels > Plan View Commandline: none

This tool panel provides three tabs. Each tab houses a gallery of Plan View blocks. The tabs are:

- All Plan View Files Enumerates the %BLOCKS%\Plan View Files\ folder tree presenting a preview of each dwg file. Each sub folder will be added as a gallery group and items in that folder added to the group.
- **Project Plan View Items** Provides a gallery item for each SysName in the Equipment List. If the SysName's equipment definition has an empty Plan View File, the project Default Plan View File is presented.
- Equipment Library Plan View Files Shows all Equipment Library items that have data in the Plan View File field.

#### Prerequisites

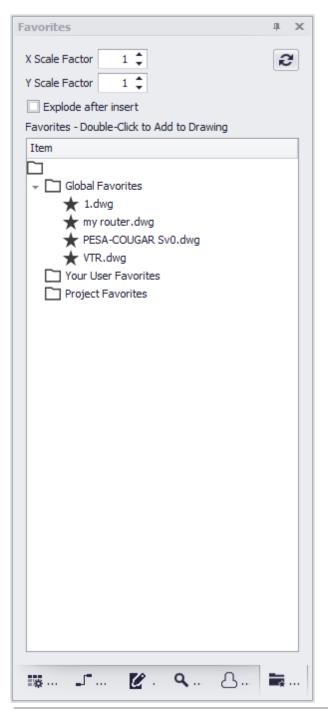
An open project. An open drawing.

#### **Related Topics**

### **Tool Panel Options**

Item	Description
Place with Rotation and Scale	If checked then when placing the selected item in the drawing you will be prompted to scale the X, Y, Z and set the Rotation angle.
Plan View Galleries	Click an item to add it to the drawing. Then place (and scale/rotate).

#### 4.3.6 Favorites



View > Tool Panels > Favorites

Commandline: none

Often times we find ourselves creating the same block or circuit configuration over and over. These times are a great candidate for a Favorite. Creating a Favorite stores the item(s) as a block in the OS in one of three places:

- Global Saves in the %BLOCKS%\Favorites path and may be visible to other user with the same support path.
- User Saves to your user profile. Visible only to you.
- Project Saves in the Project\Favorites folder for use by anyone with access to the project.

#### Prerequisites

A drawing with the block or configuration you want to save as a Favorite. A drawing into which you wish to place a Favorite.

#### **Related Topics**

### **Tool Panel Options**

Item	Description
Explode	If you have grouped a system together that includes multiple blocks and cables into a single block. It will need to be exploded back one level to expose the individual WireCAD objects.
Scale	
List	Double-click to add to the current drawing.

Reference	489

### 4.3.7 Command Line

Executing Command: Open PDF - C:\Users\Public\Documents\Uset a test\Drawings\test1.pdf Can't find dependent file: C:\Users\Tarab\Documents\Warketing\Art\hires\WireCAD logo.jpg		
Command:	Calculator: 4	*

View > Tool Panels > Command Line

#### Commandline: none

## Explanation

The Command Line interface to the application. Here you can view a history of commands and enter commads directly. All commands entered must be executed by clicking the [Enter] key.

#### Prerequisites

None

#### **Related Topics**

My Space Bar is my Enter Key 273

## **Dialog Options**

Item	Description
Command History	What went before
Command Prompt	What the application is expecting of you. If no job is running or no input is expected from you it will read: Command:, No AutoSave Needed : test1.dwg No AutoSave Needed : Test2.dwg Command: Otherwise it will prompt you for some action: No AutoSave Needed : test1.dwg No AutoSave Needed : test1.dwg No AutoSave Needed : Test2.dwg Select the Source
Command Line	Enter the command here
Calculator	

## A Note About the Index

The following index is generated from the online text and as such the page numbers may represent a sub chapter heading instead of the actual page.

The key word you are searching for will be in the sub chapter.

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