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APP - CC100 PROJECT MANAGER

APPLICATION REV 20.01.12+ DOCUMENT REV 6.0

CRIOSU CONTROLS

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Introduction

The cc100 Project Manager application facilitates the Capture of Project Requirements, Generation of 2nd Fix Drawings, Importing from Drawing, Selection of Modules, Configuration of System, Revision History, Document Genetration and System Programming.



Create New Project

Press the "**Setup**" button (Home Screen) and then the "**Project Folder**" button (Setup Screen) and create a new Project Folder for the Project. Before Leaving, Press "**Select Folder**" to select the folder just created.



A New Project will be created.



Project Drawings

Create new KiCad Drawing Project

Press the **"Drawings"** button to Open the KiCad application.

	■ cc200	
Edit Zone Label	KiCad Schematic Capture	
Installer	Drawings Project: Sample Project	
- 🐼 肴	Project Folder: C:\Users\Comer\Desktop\Criosu\B	KiCad Sample Projects\Sample Projec
Modules Init Setu	KiCad Executable Folder Kicad Executable Folder:	
Project Folder	Download KiCad Executable Open https://www.kicad.org/download/ and download	oad Windows version of KiCad.

Press **New Project** (Under File), go to the KiCad Folder of the Project Folder, enter the new Kicad Project Name and press enter.

Onen Demo Project		-		
Open Project	Create New Project			
Open Recent	\leftarrow \rightarrow \checkmark \uparrow 📜 \ll Desktop \Rightarrow Criosu \Rightarrow KiCad \Rightarrow Sample Projects \Rightarrow Sa	imple Project > KiCad 🗸 🗸 🗸	ව Search KiCad	
Close Project	Organize • New folder			-
Save As	A Name	Data modified	Turne	Size
Import Non-KiCad Pro	A Quick access	Date modified	туре	5120
Archive Project Unarchive Project	🐱 Creative Cloud Files	No items match your search.		
Quit	 OneDrive - Personal 			
	🧢 This PC			
	3D Objects			
	Desktop			
	Documents			
	➡ Downloads			
	J Music			
	Pictures			
	📕 Videos			
	🐛 OS (C:)			
	Matwork Y <			
	File name: Sample Project			
	Save as type: KiCad project files (* kicad pro)			
	▲ Hide Folders	Create a new folder for the project	Save	Cancel
				_

A new blank KiCad drawing Project will be created

KI Sample Project — KiCad 8.0	- 🗆 ×										
File Edit View Tools Preferences Help											
Project Hies Foject kicad_pro Sample Project.kicad_pcb Sample Project.kicad_pcb Sample Project.kicad_pcb	Schematic Editor Edit the project schematic	Uda									×
	File Edit View Place Inspect Tools Preferences	Help		000				A and diff. E	Ø - 🔿 🔪 💳 🛲 🕯		
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KiCad Setup

Download KiCad Application

Press "**Project Schematics**" button (Setup Screen) followed by the "**Download Kicad**" button to install the Kicad drawing application if not already installed.

User	Projects/Sample Project	
D Bdit Zoss Label	KiCad Schematic Capture	- c
Installer Modulor Init Setty	Projec	t: Sample Project 1 Folder: C: Users/Camer/Deskage/Crtass/K/Cad/Sample Projects/Sample Proje Executable Folder:
Project Fedder	Deveload XCall Decentrate Open	https://www.kical.org/download/ and download Windows version of KiCad.

KiCad Installation



Press "**Project Schematics**" button (Setup Screen) followed by the "**Download Criosu Controls Library**" button **to download library** if library not already been installed.

00	–
Setup	Project Name: Sample Project Serial Number: 99999999 Project Folder: CAUsers/Comer/Desktop/Criesa/KiCad/Sample
	Projects'Sample Project
	■ u200 - U
0	KiCad Schematic Capture
Fidit Zone Tabel	
Installer	Drawings Project. Stample Project
	Project Folder: C:\Users\Comer\Desktop\Criosu\KiCadSample Projects\Sample Project
- I 🥸 📑	KiCod Facoutable Folder Kicad Executable Folder:
Modules Init Setup	
	Down https://www.kicad.org/download/ and download Windows.version.of KiCad
Project Project	Download Kitaa Executione
Folder Schemst	
	Download Grion Centrols Library Open https://criosucontrols.com/Products/SchematicCapture and press Download Criosu Synthols Library
	KiChd Teterial
	Exit

To install the downloaded Library Press "**Project Schematics**" button (Setup Screen) followed by the "**Drawing**" button. When The Kicad application, Press the Symbols Button.

Setup User	Project Name: Samp Project Folder: CAU Projects\Sample Pro	le Project Serial Number: 99999999 sers\Corner\Desktop\Criosu\KiCad\Sample ject	
0	cc200 KiCad Schematic Capture	Sample Project — KiCad 8.0	X
Fdii Zenee Label Installer Medules Medules	Drawings KiCad Executable Folder	Freiget Tiles Project Tiles Project Tiles Sample Project-kicad_pro Sample Project-kicad_pcb Sample Project.kicad_sch Samp	Schematic Editor Edit the project echematic Symbol Editor Edit global and/or project schematic symbol PCB Editor Edit the project PCB design Footprint Editor
Project Folder Project	Download KiCad Executable Download Criosu Controls Library		Gerber Viewer Preview Gerber files Mage Converter Convert bitmap images to schematic symbol Calculator Tools
	KiCad Tutorial		Show tools for calculating resistance, curren Show tools for calculating resistance, curren Totawing Sheet Editor Edit drawing sheet borders and title blocks f Plugin and Content Manager Manage downloadable packages from KiCa

Select "Add New Library", select Global and press "OK" and then do to the downloads Folder and Open "CriosuControls.kicad_sym"

[no symbol loaded] — Sym File Edit View Place Inspect	bol Editor Preferences Help					×
New Library	Q Q 🖄 🎽	- 🗚 💫 🎞 🖻	io D D 🖂 😽			
Save Liberry &c. Ct New Symbol Save Save Copy As Save All Revert Import Symbol Properties Close	Christing C Ctrist N Add To Library Table Choose the Library Table to add the libr Global Project	Note Note <th>s PC > Downloads ></th> <th>v 0</th> <th>Search Downloads</th> <th></th>	s PC > Downloads >	v 0	Search Downloads	
> Amplifier_Current		Organize • New folde	r		III - 🔲	
 > Amplifier_Instrumentation > Amplifier_Operational > Amplifier_Video > Analog_ADC > Analog_ADC > Analog_Switch > Audio > Battery_Management > Buffer > CPLD_Altera > CPLD_Renesas > CPLD_Renesas > CPLU 	Instrumentation amplitifers General operational amplitifers Video amplifiers Miscellaneous analog devices Analog to digital converters Digital to analog converters Analog switches Audio devices Battery management ICs High-speed clock/data buffer ICs Altera CPLD symbols Microchip CPLD symbols Renesas CPLD symbols Central processor unit (CPU) symbole	 Quick access Quick access OneDrive - Personal This PC 3D Objects Desktop Documents Documents Downloads Music Pictures Videos QS (C:) Network 	Name I foday (1) CriosuControls.kicad_sym Last month (1) A long time ago (1)	Select a file to preview.		
Add an existi Z 6.09 X	-700.00 Y -850.00 dx -700.00 c	File nan	ne: New_Library.kicad_sym	~	KiCad symbol library files (*.kic	са
					Open Cancel	

Set Path to KiCad Application

Press the **Project Schematics** button (Setup Screen) followed by the **Kicad Executable Folder** button to the path to the KiCad Executable if blank.

00		- 🗆 ×		
Setup	Project Name: Sample	e Project Serial Number: 99999999		
	Project Folder: C:\Use Projects\Sample Project	ers'Comer'Desktop'Criosu'KiCad'Sample et		
	cc200		- 0	×
0	KiCad Schematic Capture			
Edit Zone Label				
	Drawings	Project: Sample Project		
		Project Folder: C: Users Comer Desktop Criosu Kie	ad Sample Projects Sample Project	<i>.</i>
Modules Init	Plast Record M. Pollor	Kicad Executable Folder:		
Sctup	RICHO ENGLAURE FORM			
		Select Folder		×
Project Project	Download KiCad Executable	← → * ↑ A « OS (C:) > Program Files > KiCad > 8.0 >	✓ U Search 8.0	م •
Folder Schematics		Organize • New folder	Data madified	
		SWinREAgent	28/02/2024 10:40	File folds
		adobeTemp	28/02/2024 10:40	File fold
		Apps Ib	28/02/2024 10:40	File fold
		boot share	28/02/2024 10:48	File fold
		Cadence		
		Downloads		
		home		
		logs		
		MyWorkspace		
		OneDriveTemp		
		OpenSCADA		
		PerfLogs		
		Program Files		
		Program Files (x		
		ProgramData		
		RDWorksV8		;
		Fables bin		
		Folder: Diff		
			Select Folder Can	sel

Drawing Page Setup

Select the "Project" (KiCad Home Scren), select "Page Setup" (Schematic Editor) and enter the Issue Date, Revision, Title, and Company Name. Check the boxes for fields that are to be exported too other sheets



Sheet Limitations

Each sheet may only have one IO module and one PV Module

Device Configuration

A device may be configured by editing the device label.



The **Device Index** is appended immediately following the Device Type (ZD – Digital Zone Senor, ZP – Probe Zone Sensor etc.

The **Device Label** follows the Device Index separated by dash ("-") or underscore ("_").

The comma delimited Device Configuration follows the Device label. For instance, the configuration ",S,R" in "ZN3_Bedroom_1,S,R" configures the zone as the Radiator type and as a Sleeping type Zone.

Configuration is case sensitive. Configuration controls text must upper case.

Device	Configu	ration Control
ZD Zong Digital Sansors	ZNn_la	bel,Mn,Rn,Tt,Ss
ZD - ZONE DIGITAL SENSORS	ZNn	Zone n (1-16)
ZD_CC764_S_MCR_1GF_SNV ZD_CC764_S_BSS_1GC_SNV	label	Label
ZD_CC764_S_WHI_1GC_SNV ZD_CC764_S_BLK_1GC_SNV	Mn	IO Module n (1-8)
ZD_CC764_A_WHI_1GC_SNV ZD_CC764_A_WHI_WM_SNV	Rn	Relay n (1-16)
ZD_CC765_S_BSS_1GF_SV ZD_CC765_C_Whi_1GC_SV	Tt	Zone Type
ZD_CC764_A_WHI_1GC_SNV		t
ZN1_Dining_Room1		U UFH (Default)
		R Radiator
		E Electric UEH
Sensor_Input		
	Ss	Schedule Living or Sleeping
		s Scheule
		L Living (Default)
		S Sleeping



FCUL Fan Coil Unit	FCn_lat	bel,Mn,Cn, Xx,Ln,Ss	
	FCn	Fan Coil n (1-16)	
FC1-Bedroom_1.M1.C1.XC.SSRZ1 FC_FanCoil	Label	label	
	Mn	PV Module n (1-5)	
	Cn	PV Channel n (1-8)	
	Xx	Switch s	
Module: CC200-SM-PV_ADV		x	
		N No Switch	
		C Cooling	
		Secondary Load 1. "Ss" sets Reference	<u>Line:</u>
		2. DAC Hi: 10 DAC Lo: 10	
		3. Ref Lo: SP Ref Hi: Sp+D)B+F3
	Ln	Load Line	
		Ν	
		0 Primary	
		1 Secondary	
	Ss	Source s:	
		S	
		Z Zone	
	Zn	H Hottest Zone Zone n (1-32)	

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CT - Contactor

CTx_label,Rn,TNm,TFm,Zn,TT



CTx_lab f	el,Mn,Rn,TN	lm,TFm,ZFf,ZNn,SY			
CTn	Contactor n				
Label	label				
Mn	IO Module	n (1-8)			
Rn	Relay n (1-	16)			
TNm	Timer ON r	ninutes (0-59)			
TFm	Timer OF n	ninutes (0-59)			
ZFf	Zone Contr	ol Flag			
	f	Flag			
	0/HT	Heating			
	1/CI	(Default)			
	2/F1	Fan 1			
	3/F2	Fan 2			
	4/F3	Fan 3			
	5/HC	Heating &			
		Cooling			
	6/SSH	Schedule			
	7/RH	Relative			
		Humidity			
	8/CH1	Channel 1			
		E Differential			
		Differential			
ZNn	Zone numb	oer n (1-16)			
SFf	System typ	e Flag			
	f	Flag			
	0/UFH	HT UFH			
	1/RAD	HT Radiators			
	2/DHW	/HT DHW			
	3/BOIL	ER Boiler			
	4/MF	Manifold			
	5/SYS	HT System			
		Heating			



BMS - Building Management System	BMn_label,Mn,In	
BM_Building_Management_System BM1	BMn BMS(Building Management System) n	
BMS GND	Label label	
Valt-Free •	MnIO Module n (1-8)InInput n (1-5)	_
	FNf Input Function	
Module: CC200-SM-BMS	fOVOverride Module n (Mn), Relay n (Rn)ENEnable Module n (Mn), Relay n (Rn)MnModule n	
	Rn Relay n	
VRF - Variable Refrigerant Flow Unit	VRn_label,Zn,Sp[,Zn…]	
VRF_DAKIN VRF_INTERSISBOX_FJ_RC_MBS_1	Zn must be the first parameter	
VRF_PROCON_IP30 VRF_PROCON_MELCOMENS_MINI_A1 M	VRn VR(Variable Refrigerant Flow Unit) n	
	Label label	
VRF1_VRF,Z1,S21,Z2,S21	Zn Zone n (1-32)	
	Sp Setpoint p (16-32)	
GND A R5485 B VRF	If not set then use the CC200 zone Setpoint	

Generate PDF Drawing

Press the Project Drawing button (in the example below it is "UFH_FCU_BMS_sch") and from the File Menu select Plot.

In the Plot Dialog, select "Pdf". Do not select an output director. The cc100 application will reference the default output directory.

Press "Plot All Pages." The output pdf will be saved in the Project Kicad Directory.

In this example the path is ../UFH_FCU_BMS/Kicad/UFH_FCU_BMS.pdf.



Modules

Press the "Setup" button followed by "Modules" button.

■ cc200		- 🗆 X			
Master Status	ntrols adva (press				
Mode: Schedule	■I cc200	- 🗆 X			
Schedule: Winte	Setup	Project Name: undefined Serial Number: 99999999			
		■ cc200	-		×
Alarms None	0	Modules			
A 4	Edit Zone Label	Sctup Relay Config (CC200-M-RC)			
System Vacat	Installer	Relay Config Ext (CC200-SM-RCE)			
Setup	Modules	Cooling (CC200-M-CL) Device-VRF (CC200-D-VRF)			
		Setup PV - Advanced (CC200-M-PV-Adv)			
	Folder :	Sctup DHW Priority (CC200-M-DHW-P)			
		Setup Alarms (CC200-M-ALM)			
		Setup Modbus Slave (CC200-M-MBS)			
					-
		Export to Folder		Exit	

Modules must be registered when Dat files are downloaded to the cc200HV6.

Data Management

Load a Project

Step	Description				
1	Set the Project open allowing	Folder. This w you to select th	ill be location of e required Projec	the Project folder. A dialog t Folder.	g box will
	Project Under	efProject	New Project		
	C:\Users\Comer\O	neDrive\Documents\cc300_0	Central Manager		
	Project	PV	DHWPriority	LA Securi	New Project
	Zone	ModbusMaster	Alarms		Project Folder
	ZoneSched	RelayAdv	✓ ModbusSlave	Conv from F	older to Project Folder
	ExSensor	RelayC1Ext	✓ Differential	Copy from P	roject Folder to Folder
	Relay	Cooling	✓ RhDewPt		
		PVStd	VRF		
	Check Unchec	All kAll	Set Factory Defaults	<i>Caution! Copy function will overwrite files.</i>	Exit
2	Press Load Pro	oject.			
	Project Project	ct Name	New Project		
	C:\Users\Comer\On	eDrive\Documents\cc300_C	entralManager		
	Env	AnaIn	VAdv	Lo	ad Project
	✓ Project	▼ PV	✓ DHWPriority	Save	New Project
	Zone	ModbusMaster	✓ Alarms	Set P	Project Folder
	ZoneSched	RelayAdv	✓ ModbusSlave	Copy from Fo	older to Project Folder
	✓ ExSensor	RelayC1Ext	✓ Differential	Copy from Pr	roject Folder to Folder
	Relay	Cooling	RhDewPt		
		₽VStd	VRF		
	Invalid Folder				
	Check A	A11	Set Factory Defaults	Caution! Copy function will overwrite files	
	Uncheck	All			Exit
	L				

Copy a Project To/From a Folder

Project	Project N	ame	New Project		
C:\Users\C	Comer OneDr	ive\Documents\cc30	0_CentralManager		
✓ Env		🖌 AnaIn	✔ PVAdv		Load Project
✓ Project		✓ PV	✔ DHWPriority		Save New Project
✓ Zone		✓ ModbusMaster	Alarms		Set Project Folder
✓ ZoneSche	d	✓ RelayAdv	✓ ModbusSlave	Coj	py from Folder to Project Folder
✓ ExSensor		RelayC1Ext	✔ Differential		py from Project Folder to Folder
🖌 Relay		Cooling	RhDewPt		
		✔ PVStd	VRF		
Invalid Foi	lder				
	Check All		Set Factory Defaults	Caution! Copy function will overwrite files.	
	Uncheck All			*	

Press "Copy Project Folder to Folder" to copy the presently loaded Project to a Folder.

Press "Copy from Folder to Project Folder" to copy [Load] from a Folder to presently loaded Project.

Project	Project Name	New Project		
C:\Users\Com	er\OneDrive\Documents\cc300_	CentralManager		
🖌 Env	🖌 AnaIn	VAdv PVAdv		Load Project
✓ Project	▼ PV	DHWPriority	S	ave New Project
✓ Zone	✓ ModbusMaster	✓ Alarms	s	et Project Folder
✓ ZoneSched	RelayAdv	ModbusSlave	Copy from	n Folder to Project Folder
✓ ExSensor	RelayC1Ext	✔ Differential	Copy from	n Project Folder to Folder
🖌 Relay	Cooling	RhDewPt		
	▼ PVStd	VRF		
Invalid Folder				
C	Check All	Set Factory Defaults	Caution! Copy function will	
U	ncheck All		orei mitegites.	

Desktop Configuration Screens

Additional Desktop Screens are available to expedite configuration.

Access Desktop Screens



Installer	Project	
	Zones	
	VO	
		Exit

Emulation

A system may be run from the Desktop attaching a USB to RS485 Adapter and Setting up the Com Port.

USB to RS485 Adapter

Refer to Products/Interfaces/ I-ADP-USB-RS485 on CriosuControls.com site



Setup Modbus Master Com Port



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2	Press the Adv Setup button to view the Advanced Setup Screen.				
	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$				
3	Press the Modbus Master button				
	Commission Date undefined cc200 Revision Folder A: (Active): 20.01.09 DCHP IP 172.19.96.1 cc200 Revision Folder B: (Inactive): 20.01.09 OS Revision Microsoft Windows 10.0.19045 image: cc200 Revision Folder B: (Inactive): 20.01.09				
4	Press Port Setup				

	Modbus Master Registers
	Ids Sla FC Reg Data Device Parm Ids Label En Edit 1 31 3 0 Undef X Edit 2 31 3 0 Undef X Edit 3 31 0 Undef Undef X Edit 4 31 3 0 Undef Undef X Edit 5 31 3 0 Undef Undef X Edit 6 31 3 0 Undef Undef X Edit 7 31 3 0 Undef Undef X Edit 8 31 3 0 Undef Undef X Edit 9 31 3 0 Undef Undef X Edit 10 31 3 0 Undef Undef X Edit 11 31 3 0 Undef Undef X Edit
5	Detach the current Com Port if incorrect.
	Com Port Baud Rate Baud_9600 Parity None Data Bits DataBits_8 Stop Bits One Port COM1 Detach
	Exit
	Do not change the Default Com Port setting.
6	Attach the Correct Com Port

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	Com Port	
	Baud Rate Baud_9600 • Parity None • Data Bits DataBits_8 • Stop Bits One •	
	Port Atneh COM1 COM1 COM1 COM3 COM4	
	Ex	>
7	A system can to the Desktop. It will emulate the cc200HV5	