Using ViewPort, Catalina and BlackCat to edit, run, and debug C Programs

Step 1: Click *File/New* to create a "cbp" project file from template:

New File 📃 💽	
Silename	first c program
Language	cbp
Clock Mode	xtal1 + pll16x
Clock Frequency	80_000_000
Shared variables	v1,v2
	OK Cancel

Step 2: ViewPort created a new project file with default settings. (You can change the template in "ViewPort/cbp.tpl")

2 ViewPort v4.3.1	M.			
File Edit View Plugins Debug i Lóad Cońnect Stop Debug: ▶ Welcome code das iss all ☐ first c program.cbp ☐ Source Files Header Files C:\\first ♥ Browse Filee	Help analog fuzzy mixed video terminal Untitled" first c program.cbp* Source Files Header Files Compler Options Darker Options Variar 4bc -variar 4bc -v	Project Configuration This file configures how your project will be built. Use the 'Add' and 'Remove' buitons or click the items to change them directly. Add Item Remove Selected		
Connection: Disconnected Memory:0 sec				

Step 3: Click *File/New* to create a "c" source file from template.

New File	E 🛛
Filename	blink
Language	c 💌
Clock Mode	xtal1 + pll16x
Clock Frequency	80_000_000
Shared variables	v1,v2
	OK Cancel

Step 4: Type in some c code, here to blink led's. Click the "add file to current project".



Step 5: Click the "Load" button to compile and load the Propeller- you're led's should blink!



Step 6: Customize your project, by "add item", then pick "NO_HMI" on the "Link" tab and press "add". Your binary is now much smaller!



Step 7: Press the "Start Debugging" button to build a "debug" build, load it to the Propeller and launch BlackCat

0	ViewPort v4.3.1	
	File Edit View Plugins Debug H	lelp
	Load Connect Stop Debug:	
	Welcome code dso Isa a	Debugging uzzy mixed video terminal
	Start	Debugging

Step 8: Debug your code with breakpoint and stepping!

ViewPort v4.3.1		
File Edit View Plugins Debug H lim State Loadi Connect Skop Debug: III State State Welcome code dso isa all analog fuzzy mixed video terminal Source Files Untitled' first c program.cbp Untitled' first c program.cbp blink.c BlackCat (Source Code debugger for Catalina C) Version 1.24 Desired Code	catalina -D DEMO x0 -M32k g - cbink c o ob/Debugʻblink obj Catalina Compler 2.4 catalina -D DEMO +o x0 -M32k o bin/Debugʻblanno ob/Debugʻblink obj g -D NO_HMI Homespun Spin Compler 0.27 parsing C-YPogram Files' Catalina Yarget Viam, blackcat.spin parsing C-YPogram Files' Catalina Yarget Vatalina spin parsing C-YPogram Files' Catalina Yarget Vatalina Common spin parsing C-YPogram Files' Catalina Yarget Vatalina Common spin parsing C-YPogram Files' Catalina Yarget Vatalina, LombugCog spin parsing C-YPogram Files' Catalina Yarget Vatalina, LombugCog spin parsing C-YPogram Files' Catalina Yarget Vatalina, LombugCog spin parsing C-YPogram Files' Catalina Yarget Vatalina, LMM spin compolina Imm. blackcat.soli	
Open dbg file Clear output panel Options Show comm stats Go to "stopped at" lin	e Examine Memory	
🖓 🗐 🛐 🔍 🤍 👫 👯 🚾 c:\program files\catalina\first	\blink.c V Stopped at: 0x2e0	
1 #include Run (to next user breakpoint)	In: main() at line 3	
2 2	mask = 0 0x0 (unsigned int) @ r17	
D 4 ungigned wack = 0x00ff0000;	on_off = 0 0x0 (unsigned int) @ F16	
\square 5 unsigned on off = 0x00ff0000;	count = 0 0x0 (unsigned int) e FIS	
6 unsigned count;		
7 dira(mask, mask);		
8 outa(mask, on_off);		
▷ 9 count=_cnt();		
D 10 while (1) {		
11outa(mask, on_off);		
12 count += 10000000;		
⇒ 13 waitcht(count);		