

PCRS-C Visualizer Mockup

With Sample Code Step-Through

To view as intended, use slideshow/full-page view mode.

Formatting legend

- BOLD OUTLINE** : (Current statement) Variables directly referenced, and their allocated memory
- BRIGHT YELLOW** : (Current statement) New assigned value and/or allocated memory
- LIGHT YELLOW** : (Current statement) Name for variable containing new assigned value
- GREY** : (Current statement) Pointer names & values associated with new assigned value
- BRIGHT GREEN** : Selected/Hovered Value
- ORANGE** : Pointer names & values associated with selected/hovered value
- BLUE** : On selection/hover of a pointer, highlights dereferenced pointer

Names	
Label	Type
num	int
c1	char
c2	char

0x124

0x128

0x12c

0x130

0x134

0x138

0x13c

0x140

main: 4			
16			
'a'	-		

// stepping through code: box denotes most recent statement

int num = 16;

char c1 = 'a';

char c2;

c2 = 'b';

long big_num = 3000000000;

int *ptr = #

*ptr = 32;

Names	
Label	Type
num	int
c1	char
c2	char

0x124

0x128

0x12c

0x130

0x134

0x138

0x13c

0x140

main: 4			
16			
'a'	'b'		

// stepping through code: box denotes most recent statement

int num = 16;

char c1 = 'a';

char c2;

c2 = 'b';

long big_num = 3000000000;

int *ptr = #

*ptr = 32;

Names	
Label	Type
num	int
c1	char
c2	char

hover over 'num' row

// stepping through code: box denotes most recent statement

```
int num = 16;
char c1 = 'a';
char c2;
```

```
c2 = 'b';
```

```
long big_num = 3000000000;
int *ptr = &num;
*ptr = 32;
```

main: 4			
0x124	16		
0x128	'a'	'b'	
0x12c			
0x130			
0x134			
0x138			
0x13c			
0x140			

Names	
Label	Type
num	int
c1	char
c2	char

hover over 'c1' row

```
// stepping through code: box denotes most recent statement
```

```
int num = 16;
```

```
char c1 = 'a';
```

```
char c2;
```

```
c2 = 'b';
```

```
long big_num = 3000000000;
```

```
int *ptr = &num;
```

```
*ptr = 32;
```

	main: 4			
0x124	16			
0x128	'a'	'b'		
0x12c				
0x130				
0x134				
0x138				
0x13c				
0x140				

Names	
Label	Type
num	int
c1	char
c2	char
big_num	long

	main: 4			
0x124	16			
0x128	'a'	'b'		
0x12c	3 000 000 000			
0x130				
0x134				
0x138				
0x13c				
0x140				

// stepping through code: box denotes most recent statement

```
int num = 16;
```

```
char c1 = 'a';
```

```
char c2;
```

```
c2 = 'b';
```

```
long big_num = 3000000000;
```

```
int *ptr = &num;
```

```
*ptr = 32;
```

Names	
Label	Type
num	int
c1	char
c2	char
big_num	long

hover over 'big_num' row

// stepping through code: box denotes most recent statement

```
int num = 16;
char c1 = 'a';
char c2;
c2 = 'b';
```

```
long big_num = 3000000000;
```

```
int *ptr = &num;
*ptr = 32;
```

main: 4			
0x124	16		
0x128	'a'	'b'	
0x12c	3 000 000 000		
0x130			
0x134			
0x138			
0x13c			
0x140			

Names	
Label	Type
num	int
c1	char
c2	char
big_num	long
ptr	int *

0x124

0x128

0x12c

0x130

0x134

0x138

0x13c

0x140

main: 4			
16			
'a'	'b'		
3 000 000 000			
0x124			

```
// stepping through code: box denotes most recent statement
```

```
int num = 16;
char c1 = 'a';
char c2;
c2 = 'b';
long big_num = 3000000000;
```

```
int *ptr = &num;
```

```
*ptr = 32;
```


Names	
Label	Type
num	int
c1	char
c2	char
big_num	long
ptr	int *

hover over 'ptr' row

// stepping through code: box denotes most recent statement

```
int num = 16;
char c1 = 'a';
char c2;
c2 = 'b';
long big_num = 3000000000;
```

```
int *ptr = &num;
```

```
*ptr = 32;
```

	main: 4			
0x124	16			
0x128	'a'	'b'		
0x12c	3 000 000 000			
0x130				
0x134	0x124			
0x138				
0x13c				
0x140				

Names	
Label	Type
num	int
c1	char
c2	char
big_num	long
ptr	int *

value was changed for existing variable

```
// stepping through code: box denotes most recent statement
int num = 16;
char c1 = 'a';
char c2;
c2 = 'b';
long big_num = 3000000000;
int *ptr = &num;
*ptr = 32;
```

main: 4			
0x124	32		
0x128	'a'	'b'	
0x12c	3 000 000 000		
0x130			
0x134	0x124		
0x138			
0x13c			
0x140			

Names	
Label	Type
num	int
c1	char
c2	char
big_num	long
ptr	int *

hover over '32', '0x124' or 'num' row

// stepping through code: box denotes most recent statement

```
int num = 16;
char c1 = 'a';
char c2;
c2 = 'b';
long big_num = 3000000000;
int *ptr = &num;
```

```
*ptr = 32;
```

main: 4			
0x124	32		
0x128	'a'	'b'	
0x12c	3 000 000 000		
0x130			
0x134	0x124		
0x138			
0x13c			
0x140			