

The Resolve Path Feature

How to Resolve the "file <src.c> not found" Problem in TRACE32

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Missing Source Code

Source code is missing [A]

The screenshot shows a debugger window titled "B::List.auto" with a table of assembly instructions. Several rows are hatched with diagonal lines, indicating that the source code for these instructions is missing. A red box with the letter "A" is overlaid on the hatched area.

addr/line	code	label	mnemonic	comment
264				
ST:20000484	B590	main:	push	{r4, r7, r14}
ST:20000486	B085		sub	sp, #0x14
ST:20000488	AF04		add	r7, sp, #0x10
ST:2000048A	4C27		ldr	r4, 0x20000558
ST:2000048C	447C		add	r4, pc
265				
ST:2000048E	F7FFED9		bl	0x20000274 ; Init
267				
ST:200004C2	2001		mov	r0, #0x1
ST:200004C4	2104		mov	r1, #0x4
ST:200004C6	2200		mov	r2, #0x0
ST:200004C8	F000FCCC		bl	0x20000E64 ; xQueueGenericCreate
ST:200004CC	4602		cpy	r2, r0
ST:200004CE	4B23		ldr	r3, 0x2000055C
ST:200004D0	58E3		ldr	r3, [r4, r3]
ST:200004D2	601A		str	r2, [r3]
268				
ST:200004D4	4B21		ldr	r3, 0x2000055C
ST:200004D6	58E3		ldr	r3, [r4, r3]

[A] Diagonal lines indicate that some source files are missing. Why? The build environment differs from the debug environment. In this case, the code was built on Windows with Cygwin. And now a Linux machine is used for debugging.

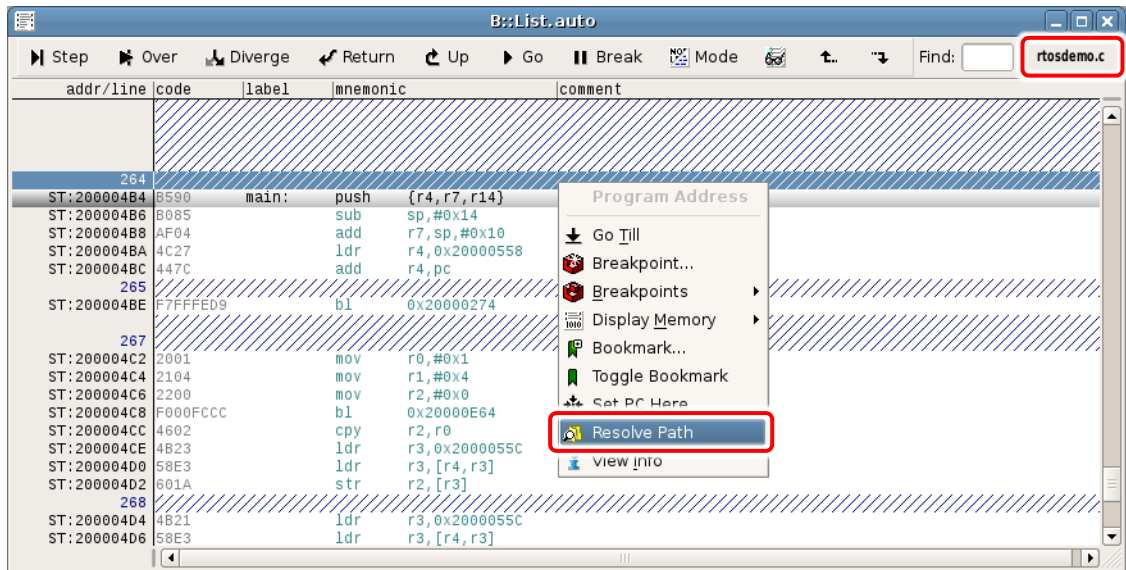
[B] The affected source files are highlighted in red in the sYmbol.List.SOURCE window.

The screenshot shows a debugger window titled "B::sYmbol.List.SOURCE" with a table of source files. Several files are highlighted in red, and arrows point from a red box labeled "B" to these files and to "error" entries in the "state" column.

module	source	file	size	time	state
\\rtosdemo_pic_thumb_ii_v7m\background	/cygdrive/w/Projects/freertos/background.c	/cygdrive/w/Projects/freertos/background.c			
\\rtosdemo_pic_thumb_ii_v7m\rtosdemo	/cygdrive/w/Projects/freertos/cmsis/core_cm4.h	/cygdrive/w/Projects/freertos/cmsis/core_cm4.h			
\\rtosdemo_pic_thumb_ii_v7m\rtosdemo	/cygdrive/w/Projects/freertos/cmsis/core_cmInstr.h	/cygdrive/w/Projects/freertos/cmsis/core_cmInstr.h			
\\rtosdemo_pic_thumb_ii_v7m\cr0-pic	/cygdrive/w/Projects/freertos/cr0-pic.s	/cygdrive/w/Projects/freertos/cr0-pic.s			error
\\rtosdemo_pic_thumb_ii_v7m\heap_1	/cygdrive/w/Projects/freertos/freertos/heap_1.c	/cygdrive/w/Projects/freertos/freertos/heap_1.c			
\\rtosdemo_pic_thumb_ii_v7m\list	/cygdrive/w/Projects/freertos/freertos/list.c	/cygdrive/w/Projects/freertos/freertos/list.c			
\\rtosdemo_pic_thumb_ii_v7m\port	/cygdrive/w/Projects/freertos/freertos/port_cm3.c	/cygdrive/w/Projects/freertos/freertos/port_cm3.c			
\\rtosdemo_pic_thumb_ii_v7m\queue_opt	/cygdrive/w/Projects/freertos/freertos/queue.c	/cygdrive/w/Projects/freertos/freertos/queue.c			
\\rtosdemo_pic_thumb_ii_v7m\tasks_opt	/cygdrive/w/Projects/freertos/freertos/tasks.c	/cygdrive/w/Projects/freertos/freertos/tasks.c			
\\rtosdemo_pic_thumb_ii_v7m\midi	/cygdrive/w/Projects/freertos/midi.c	/cygdrive/w/Projects/freertos/midi.c			
\\rtosdemo_pic_thumb_ii_v7m\rtosdemo	/cygdrive/w/Projects/freertos/rtosdemo.c	/cygdrive/w/Projects/freertos/rtosdemo.c			error

Solution – Resolve Path Feature

Step 1: Right-click, and then select *Resolve Path*



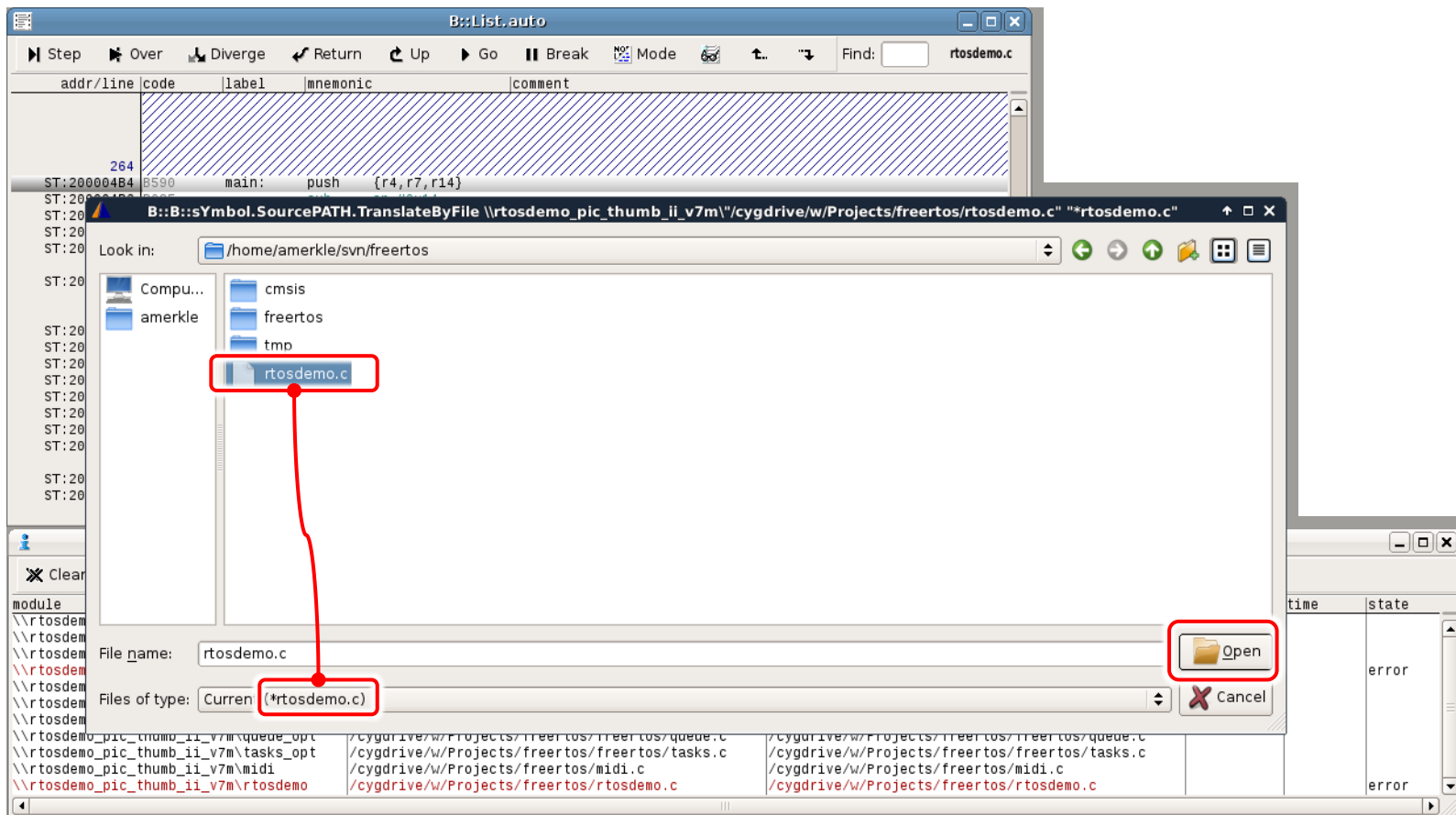
In this example, we want to resolve the path of the missing source file *rtosdemo.c*

The screenshot shows a debugger window titled "B::sYmbol.List.SOURCE". It displays a table of source files with columns for module, source, file, size, time, and state. The 'rtosdemo.c' file is listed with an 'error' state.

module	source	file	size	time	state
\\rtosdemo_pic_thumb_ii_v7m\background	/cygdrive/w/Projects/freertos/background.c	/cygdrive/w/Projects/freertos/background.c			
\\rtosdemo_pic_thumb_ii_v7m\rtosdemo	/cygdrive/w/Projects/freertos/cmsis/core_cm4.h	/cygdrive/w/Projects/freertos/cmsis/core_cm4.h			
\\rtosdemo_pic_thumb_ii_v7m\rtosdemo	/cygdrive/w/Projects/freertos/cmsis/core_cmInstr.h	/cygdrive/w/Projects/freertos/cmsis/core_cmInstr.h			
\\rtosdemo_pic_thumb_ii_v7m\cr0-pic	/cygdrive/w/Projects/freertos/cr0-pic.s	/cygdrive/w/Projects/freertos/cr0-pic.s			error
\\rtosdemo_pic_thumb_ii_v7m\heap_1	/cygdrive/w/Projects/freertos/freertos/heap_1.c	/cygdrive/w/Projects/freertos/freertos/heap_1.c			
\\rtosdemo_pic_thumb_ii_v7m\list	/cygdrive/w/Projects/freertos/freertos/list.c	/cygdrive/w/Projects/freertos/freertos/list.c			
\\rtosdemo_pic_thumb_ii_v7m\port	/cygdrive/w/Projects/freertos/freertos/port_cm3.c	/cygdrive/w/Projects/freertos/freertos/port_cm3.c			
\\rtosdemo_pic_thumb_ii_v7m\queue_opt	/cygdrive/w/Projects/freertos/freertos/queue.c	/cygdrive/w/Projects/freertos/freertos/queue.c			
\\rtosdemo_pic_thumb_ii_v7m\tasks_opt	/cygdrive/w/Projects/freertos/freertos/tasks.c	/cygdrive/w/Projects/freertos/freertos/tasks.c			
\\rtosdemo_pic_thumb_ii_v7m\midi	/cygdrive/w/Projects/freertos/midi.c	/cygdrive/w/Projects/freertos/midi.c			
\\rtosdemo_pic_thumb_ii_v7m\rtosdemo	/cygdrive/w/Projects/freertos/rtosdemo.c	/cygdrive/w/Projects/freertos/rtosdemo.c			error

Solution – Resolve Path Feature

Step 2: Locate the missing source file on the local machine



The source code can now be displayed in the List.auto window

```

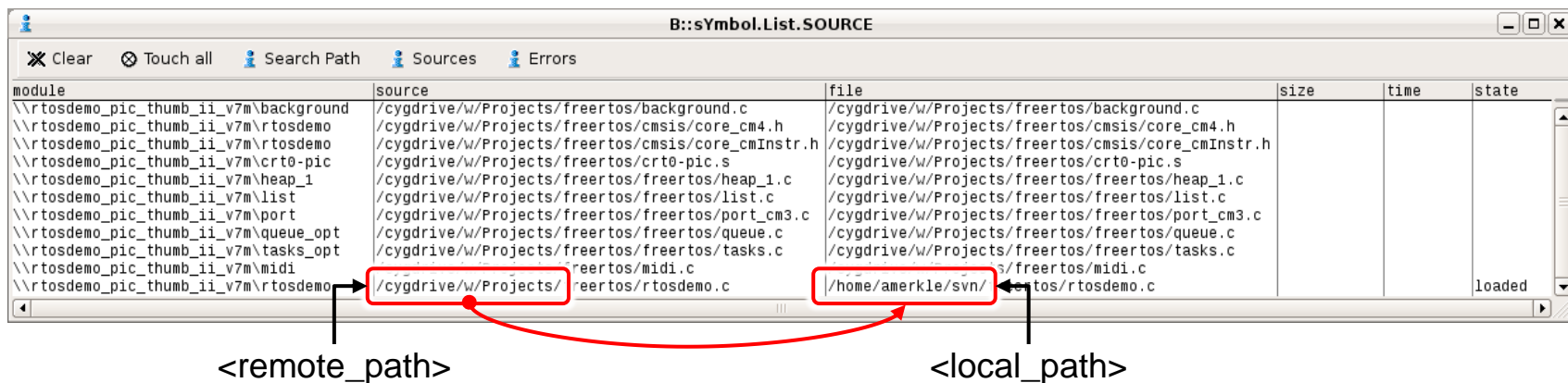
B::List.auto
Step Over Diverge Return Up Go Break Mode Find: rtosdemo.c
addr/line code label mnemonic comment
)
/*-----*/
264 int main() {
ST:20000484 B590 main: push {r4,r7,r14}
ST:20000486 B085 sub sp,#0x14
ST:20000488 AF04 add r7,sp,#0x10
ST:2000048A 4C27 ldr r4,0x20000558
ST:2000048C 447C add r4,pc
265 Init();
ST:2000048E F7FFED9 bl 0x20000274 ; Init
267 BlockingQueue = xQueueCreate(1, sizeof(int));
ST:200004C2 2001 mov r0,#0x1
ST:200004C4 2104 mov r1,#0x4
ST:200004C6 2200 mov r2,#0x0
ST:200004C8 F000FCCC bl 0x20000E64 ; xQueueGenericCreate
ST:200004CC 4602 cpy r2,r0
ST:200004CE 4B23 ldr r3,0x2000055C
ST:200004D0 58E3 ldr r3,[r4,r3]
ST:200004D2 601A str r2,[r3]
268 vQueueAddToRegistry(BlockingQueue, "SimpleQueue");
ST:200004D4 4B21 ldr r3,0x2000055C
ST:200004D6 58E3 ldr r3,[r4,r3]
  
```

[A] You have resolved the path to the missing source file *rtosdemo.c*

module	source	file	size	time	state
\\rtosdemo_pic_thumb_ii_v7m\background	/cygdrive/w/Projects/freertos/background.c	/cygdrive/w/Projects/freertos/background.c			
\\rtosdemo_pic_thumb_ii_v7m\rtosdemo	/cygdrive/w/Projects/freertos/cmsis/core_cm4.h	/cygdrive/w/Projects/freertos/cmsis/core_cm4.h			
\\rtosdemo_pic_thumb_ii_v7m\rtosdemo	/cygdrive/w/Projects/freertos/cmsis/core_cmInstr.h	/cygdrive/w/Projects/freertos/cmsis/core_cmInstr.h			
\\rtosdemo_pic_thumb_ii_v7m\cr0-pic	/cygdrive/w/Projects/freertos/cr0-pic.s	/cygdrive/w/Projects/freertos/cr0-pic.s			
\\rtosdemo_pic_thumb_ii_v7m\heap_1	/cygdrive/w/Projects/freertos/freertos/heap_1.c	/cygdrive/w/Projects/freertos/freertos/heap_1.c			
\\rtosdemo_pic_thumb_ii_v7m\list	/cygdrive/w/Projects/freertos/freertos/list.c	/cygdrive/w/Projects/freertos/freertos/list.c			
\\rtosdemo_pic_thumb_ii_v7m\port	/cygdrive/w/Projects/freertos/freertos/port_cm3.c	/cygdrive/w/Projects/freertos/freertos/port_cm3.c			
\\rtosdemo_pic_thumb_ii_v7m\queue_opt	/cygdrive/w/Projects/freertos/freertos/queue.c	/cygdrive/w/Projects/freertos/freertos/queue.c			
\\rtosdemo_pic_thumb_ii_v7m\tasks_opt	/cygdrive/w/Projects/freertos/freertos/tasks.c	/cygdrive/w/Projects/freertos/freertos/tasks.c			
\\rtosdemo_pic_thumb_ii_v7m\midi	/cygdrive/w/Projects/freertos/midi.c	/cygdrive/w/Projects/freertos/midi.c			
\\rtosdemo_pic_thumb_ii_v7m\rtosdemo	/cygdrive/w/Projects/freertos/rtosdemo.c	/home/amerkle/svn/freertos/rtosdemo.c			loaded

What happens when TRACE32 resolves the path of a missing source file?

- ▶ The build path is replaced with the debug path



module	source	file	size	time	state
\\rtosdemo_pic_thumb_ii_v7m\background	/cygdrive/w/Projects/freertos/background.c	/cygdrive/w/Projects/freertos/background.c			
\\rtosdemo_pic_thumb_ii_v7m\rtosdemo	/cygdrive/w/Projects/freertos/cmsis/core_cm4.h	/cygdrive/w/Projects/freertos/cmsis/core_cm4.h			
\\rtosdemo_pic_thumb_ii_v7m\rtosdemo	/cygdrive/w/Projects/freertos/cmsis/core_cmInstr.h	/cygdrive/w/Projects/freertos/cmsis/core_cmInstr.h			
\\rtosdemo_pic_thumb_ii_v7m\crt0-pic	/cygdrive/w/Projects/freertos/crt0-pic.s	/cygdrive/w/Projects/freertos/crt0-pic.s			
\\rtosdemo_pic_thumb_ii_v7m\heap_1	/cygdrive/w/Projects/freertos/freertos/heap_1.c	/cygdrive/w/Projects/freertos/freertos/heap_1.c			
\\rtosdemo_pic_thumb_ii_v7m\list	/cygdrive/w/Projects/freertos/freertos/list.c	/cygdrive/w/Projects/freertos/freertos/list.c			
\\rtosdemo_pic_thumb_ii_v7m\port	/cygdrive/w/Projects/freertos/freertos/port_cm3.c	/cygdrive/w/Projects/freertos/freertos/port_cm3.c			
\\rtosdemo_pic_thumb_ii_v7m\queue_opt	/cygdrive/w/Projects/freertos/freertos/queue.c	/cygdrive/w/Projects/freertos/freertos/queue.c			
\\rtosdemo_pic_thumb_ii_v7m\tasks_opt	/cygdrive/w/Projects/freertos/freertos/tasks.c	/cygdrive/w/Projects/freertos/freertos/tasks.c			
\\rtosdemo_pic_thumb_ii_v7m\midi	/cygdrive/w/Projects/freertos/freertos/midi.c	/cygdrive/w/Projects/freertos/freertos/midi.c			
\\rtosdemo_pic_thumb_ii_v7m\rtosdemo	//cygdrive/w/Projects/freertos/rtosdemo.c	/home/amerkle/svn/freertos/rtosdemo.c			loaded

<remote_path> <local_path>

- ▶ In this example, *Resolve Path* executes this command behind the scenes:

```
sYmbol.SourcePATH.Translate "<remote_path>" "<local_path>"
```

Thank you!

QUESTIONS?

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