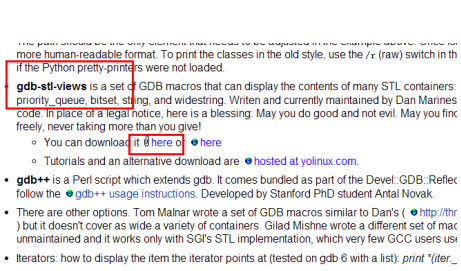
# 在linux用gdb查看stl中的数据结构

在linux用gdb或者cgdb计较不爽的地方是无法打印STL的东西，所有啊去网上找了找解决方案
https://www.douban.com/note/182826844/?qq-pf-to=pcqq.c2c

本帖把怎么配置这个东西写出了，万一以后忘了，可以回头找找。

首先是下载gdb文件 https://sourceware.org/gdb/wiki/STLSupport ------》找到网页里面的





然后点击进去下载stl_views_1.0.3.gdb

接下来把这个东西当到linux下，位置随便放，我放到了我的用户目录下

```
[yongchao@fsdev20 ~]$ pwd
/home/yongchao
[yongchao@fsdev20 ~]$ ll
total 68
drwxr-xr-x  2 yongchao fsdev  4096 Mar 21 18:11 CMakeList_Learning
drwxr-xr-x  2 yongchao fsdev  4096 Feb 23 11:11 cscope
-rwxr-xr-x  1 yongchao fsdev    27 Feb 18 14:08 env_compile.sh
lrwxrwxrwx  1 yongchao fsdev    40 Apr 29 17:40 etc -> /home/yongchao/git/farestar/FareStar/etc
drwxr-xr-x  3 yongchao fsdev  4096 Apr 17 16:17 farestar
drwxr-xr-x 24 yongchao fsdev  4096 Mar 17 15:55 farestar_uuid
drwxr-xr-x  4 yongchao fsdev  4096 May  6 09:39 git
drwxr-xr-x 14 yongchao fsdev  4096 Apr 27 18:31 git2
drwxr-xr-x  5 yongchao fsdev  4096 Apr 18 19:55 myCPP11
drwxr-xr-x  3 yongchao fsdev  4096 Apr 29 10:38 mypython
-rw-r--r--  1 yongchao fsdev  2133 Feb 18 13:46 shellConfig.txt
-rw-r--r--  1 yongchao fsdev 17901 May  6 16:25 stl-views-1.0.3.gdb
drwxr-xr-x  2 yongchao fsdev  4096 May  6 16:30 temp
drwxr-xr-x  4 yongchao fsdev  4096 May  2 18:17 Unix_Learning
[yongchao@fsdev20 ~]$
```

然后写一个小程序测试一下，

```
[yongchao@fsdev20 temp]$ pwd
/home/yongchao/temp
[yongchao@fsdev20 temp]$ ls
main.cpp  test
[yongchao@fsdev20 temp]$ cat main.cpp
#include <map>
using namespace std;
int main()
{
        map<int, char> myMap;
        myMap[1] = 'a';
        myMap[2] = 'b';
        return 0;
}
[yongchao@fsdev20 temp]$ g++ -o test maim.cpp -g
```

接着cgdb test 进入调试模式，然后加载刚才的stl_views_1.0.3.gdb

```
~
~
~
~
1  #include <map>
2  using namespace std;
3  int main()
4  {
5          map<int, char> myMap;
6          myMap[1] = 'a';
7          myMap[2] = 'b';
8          return 0;
9  >}
~
~
~
~
/home/yongchao/temp/main.cpp
Copyright (C) 2016 Free Software Foundation, Inc.
License GPLv3+: GNU GPL version 3 or later <http://gnu.org/lic
This is free software: you are free to change and redistribute
There is NO WARRANTY, to the extent permitted by law.  Type "s
and "show warranty" for details.
This GDB was configured as "x86_64-pc-linux-gnu".
Type "show configuration" for configuration details.
For bug reporting instructions, please see:
<http://www.gnu.org/software/gdb/bugs/>.
Find the GDB manual and other documentation resources online a
<http://www.gnu.org/software/gdb/documentation/>.
For help, type "help".
Type "apropos word" to search for commands related to "word"..
Reading symbols from test...done.
(gdb) b main
Breakpoint 1 at 0x400941: file main.cpp, line 6.
(gdb) source /home/yongchao/stl-views-1.0.3.gdb
```

接着就可以看看pmap的命令了

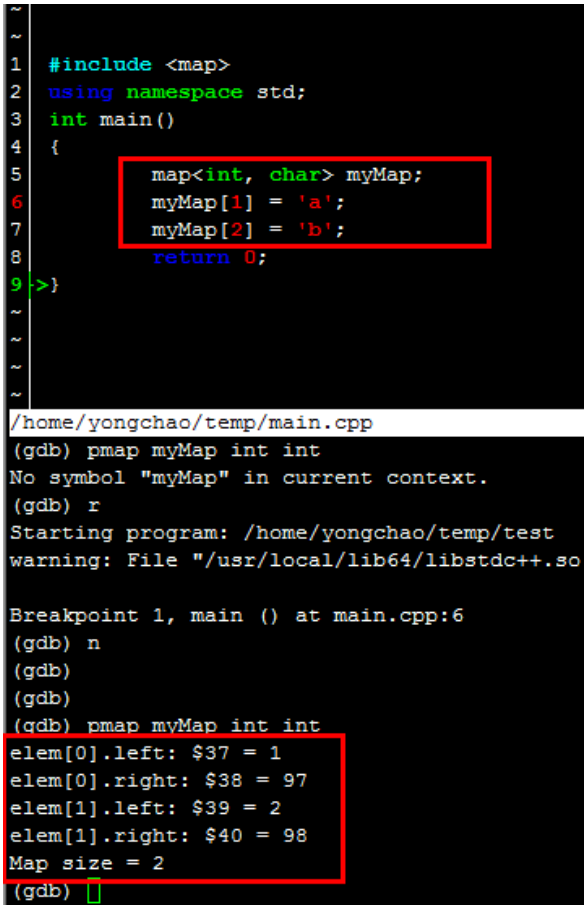
```
(gdb) help pmap
        Prints std::map<TLeft and TRight> or std::multimap<TLeft and TRight> information. Works for std::multimap as well.
        Syntax: pmap <map> <TtypeLeft> <TypeRight> <valLeft> <valRight>: Prints map size, if T defined all elements or just element(s) with val(s)
        Examples:
        pmap m - prints map size and definition
        pmap m int int - prints all elements and map size
        pmap m int int 20 - prints the element(s) with left-value = 20 (if any) and map size
        pmap m int int 20 200 - prints the element(s) with left-value = 20 and right-value = 200 (if any) and map size
(gdb)
```

pmap variable---------->打印variable这个map的定义和map里面的个数

pmap variable int  int(就是单纯的两个int) ---------->打印pmap的元素和map的个数

pmap variable int int 20---------->打印索引是20的map的值 和map的个数

pmap variable int int 20 200------->打印索引是20 值是200的map值和map的个数



```
#include <map>
using namespace std;
int main()
{
        map<int, char> myMap;
        myMap[1] = 'a';
        myMap[2] = 'b';
        return 0;
}
```

```
/home/yongchao/temp/main.cpp
(gdb) pmap myMap int int
No symbol "myMap" in current context.
(gdb) r
Starting program: /home/yongchao/temp/test
warning: File "/usr/local/lib64/libstdc++.so

Breakpoint 1, main () at main.cpp:6
(gdb) n
(gdb)
(gdb)
(gdb) pmap myMap int int
elem[0].left: $37 = 1
elem[0].right: $38 = 97
elem[1].left: $39 = 2
elem[1].right: $40 = 98
Map size = 2
(gdb)
```

东西很好用，就怕以后链接失效找不到这个文件了，下面会把这个文件东西拷贝在下面。以后用到了，自己建立一个stl_views_1.0.3.gdb，然后把下面的东西拷贝进去使用。

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