

# DAQ to Detector Translation Table

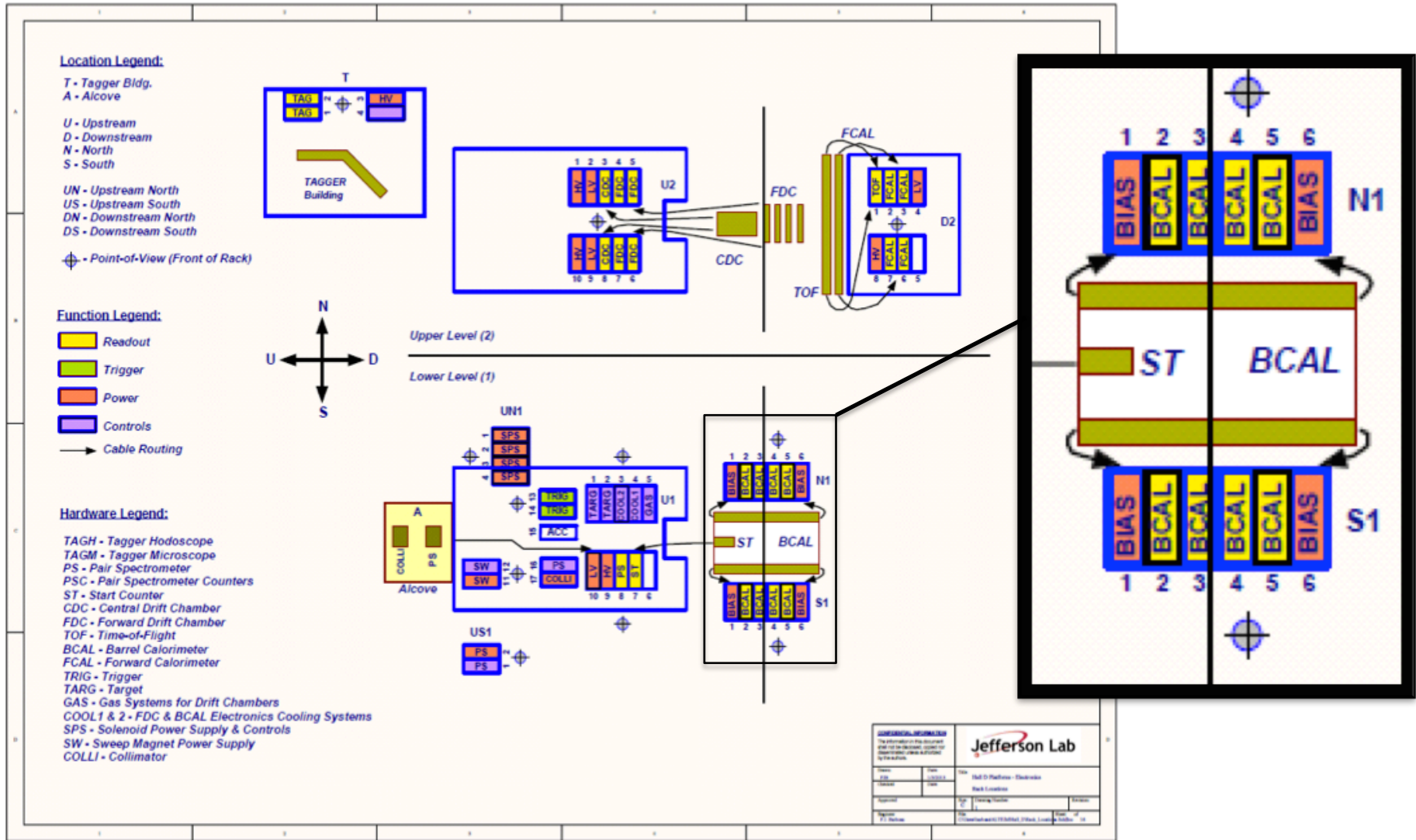
May 8, 2013

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# Translation Table:

- The Translation Table is used to convert from DAQ system coordinates (rocid, slot, channel) into detector-specific coordinates (e.g. module, layer, sector, end for the BCAL)
- Much of this information is currently kept in a Spreadsheet maintained by Fernando
- Ultimately need this to come from CCDB or Conditions DB

# Hall-D is separated into named areas, each with a number of racks



# Fernando maintains list of channel assignments in an Excel spreadsheet

The screenshot displays an Excel spreadsheet titled "Crate & Chassis - Channel Assignments-RO.xlsx". The interface shows the standard Excel ribbon with tabs for Home, Layout, Tables, Charts, SmartArt, Formulas, Data, and Review. The ribbon is currently set to the Home tab, showing options for Font, Alignment, Number, and Format. The spreadsheet data is organized into columns and rows, with some cells highlighted in yellow and blue. The bottom status bar shows "Normal View", "Ready", and "Sum=0".

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	D2-2-MID																				
2	1188020																				
3																					
4	FCAL																				
5	FADC250	ZV																			
6																					
7																					
8	CPU	FADC250	FADC250	FADC250	FADC250	FADC250	FADC250	FADC250	FADC250	CTP	SD		FADC250	FADC250	FADC250	FADC250	FADC250	FADC250	FADC250	FADC250	TI
9		ACDI493	ACDI507	ACDI599	ACDI811	ACDI577	ACDI584	ACDI474	ACDI440			95	ACDI608	ACDI600	ACDI602	ACDI564	ACDI200	ACDI389	ACDI387		227
10																					
11		FCAL (0,1)	FCAL (0,5)	FCAL (4,1)	FCAL (4,1)	FCAL (4,5)	FCAL (8,1)	FCAL (0,13)	FCAL (4,9)				FCAL (8,5)	FCAL (12,1)	FCAL (0,17)	FCAL (4,13)	FCAL (8,9)	FCAL (12,5)	FCAL (16,1)		
12		FCAL (1,1)	FCAL (1,5)	FCAL (5,1)	FCAL (5,1)	FCAL (5,5)	FCAL (9,1)	FCAL (1,13)	FCAL (5,9)				FCAL (9,5)	FCAL (13,1)	FCAL (1,17)	FCAL (5,13)	FCAL (9,9)	FCAL (13,5)	FCAL (17,1)		
13		FCAL (2,1)	FCAL (2,5)	FCAL (6,1)	FCAL (6,1)	FCAL (6,5)	FCAL (10,1)	FCAL (2,13)	FCAL (6,9)				FCAL (10,5)	FCAL (14,1)	FCAL (2,17)	FCAL (6,13)	FCAL (10,9)	FCAL (14,5)	FCAL (18,1)		
14		FCAL (3,1)	FCAL (3,5)	FCAL (7,1)	FCAL (7,1)	FCAL (7,5)	FCAL (11,1)	FCAL (3,13)	FCAL (7,9)				FCAL (11,5)	FCAL (15,1)	FCAL (3,17)	FCAL (7,13)	FCAL (11,9)	FCAL (15,5)	FCAL (19,1)		
15		FCAL (0,2)	FCAL (0,6)	FCAL (4,2)	FCAL (4,2)	FCAL (4,6)	FCAL (8,2)	FCAL (0,14)	FCAL (4,10)				FCAL (8,6)	FCAL (12,2)	FCAL (0,18)	FCAL (4,14)	FCAL (8,10)	FCAL (12,6)	FCAL (16,2)		
16		FCAL (1,2)	FCAL (1,6)	FCAL (5,2)	FCAL (5,2)	FCAL (5,6)	FCAL (9,2)	FCAL (1,14)	FCAL (5,10)				FCAL (9,6)	FCAL (13,2)	FCAL (1,18)	FCAL (5,14)	FCAL (9,10)	FCAL (13,6)	FCAL (17,2)		
17		FCAL (2,2)	FCAL (2,6)	FCAL (6,2)	FCAL (6,2)	FCAL (6,6)	FCAL (10,2)	FCAL (2,14)	FCAL (6,10)				FCAL (10,6)	FCAL (14,2)	FCAL (2,18)	FCAL (6,14)	FCAL (10,10)	FCAL (14,6)	FCAL (18,2)		
18		FCAL (3,2)	FCAL (3,6)	FCAL (7,2)	FCAL (7,2)	FCAL (7,6)	FCAL (11,2)	FCAL (3,14)	FCAL (7,10)				FCAL (11,6)	FCAL (15,2)	FCAL (3,18)	FCAL (7,14)	FCAL (11,10)	FCAL (15,6)	FCAL (19,2)		
19		FCAL (0,3)	FCAL (0,7)	FCAL (4,3)	FCAL (4,3)	FCAL (4,7)	FCAL (8,3)	FCAL (0,15)	FCAL (4,11)				FCAL (8,7)	FCAL (12,3)	FCAL (0,19)	FCAL (4,15)	FCAL (8,11)	FCAL (12,7)	FCAL (16,3)		
20		FCAL (1,3)	FCAL (1,7)	FCAL (5,3)	FCAL (5,3)	FCAL (5,7)	FCAL (9,3)	FCAL (1,15)	FCAL (5,11)				FCAL (9,7)	FCAL (13,3)	FCAL (1,19)	FCAL (5,15)	FCAL (9,11)	FCAL (13,7)	FCAL (17,3)		
21		FCAL (2,3)	FCAL (2,7)	FCAL (6,3)	FCAL (6,3)	FCAL (6,7)	FCAL (10,3)	FCAL (2,15)	FCAL (6,11)				FCAL (10,7)	FCAL (14,3)	FCAL (2,19)	FCAL (6,15)	FCAL (10,11)	FCAL (14,7)	FCAL (18,3)		
22		FCAL (3,3)	FCAL (3,7)	FCAL (7,3)	FCAL (7,3)	FCAL (7,7)	FCAL (11,3)	FCAL (3,15)	FCAL (7,11)				FCAL (11,7)	FCAL (15,3)	FCAL (3,19)	FCAL (7,15)	FCAL (11,11)	FCAL (15,7)	FCAL (19,3)		
23		FCAL (0,4)	FCAL (0,8)	FCAL (4,4)	FCAL (4,4)	FCAL (4,8)	FCAL (8,4)	FCAL (0,16)	FCAL (4,12)				FCAL (8,8)	FCAL (12,4)	FCAL (0,20)	FCAL (4,16)	FCAL (8,12)	FCAL (12,8)	FCAL (16,4)		
24		FCAL (1,4)	FCAL (1,8)	FCAL (5,4)	FCAL (5,4)	FCAL (5,8)	FCAL (9,4)	FCAL (1,16)	FCAL (5,12)				FCAL (9,8)	FCAL (13,4)	FCAL (1,20)	FCAL (5,16)	FCAL (9,12)	FCAL (13,8)	FCAL (17,4)		
25		FCAL (2,4)	FCAL (2,8)	FCAL (6,4)	FCAL (6,4)	FCAL (6,8)	FCAL (10,4)	FCAL (2,16)	FCAL (6,12)				FCAL (10,8)	FCAL (14,4)	FCAL (2,20)	FCAL (6,16)	FCAL (10,12)	FCAL (14,8)	FCAL (18,4)		
26		FCAL (3,4)	FCAL (3,8)	FCAL (7,4)	FCAL (7,4)	FCAL (7,8)	FCAL (11,4)	FCAL (3,16)	FCAL (7,12)				FCAL (11,8)	FCAL (15,4)	FCAL (3,20)	FCAL (7,16)	FCAL (11,12)	FCAL (15,8)	FCAL (19,4)		
27																					
28																					
29																					
30																					
31																					
32																					
33																					
34																					
35																					
36																					
37																					
38		FADC255	F1TDC	DISC	TV	LW/BIAS															
39																					
40																					

Spreadsheet has 1 sheet for each crate (72 sheets in all)



# Each connector on each VME module is named (some have multiple channels per connector)

Crate & Chassis - Channel Assignments-RO.xlsx

Search in Sheet

	A	B	C	D	E	F	G
1	Crate	U2-7-TOP					
2	S/N						
3							
4	Sub-System	FDC					
5	Function	fADC125					
6							
7	Slot	1	2	3	4	5	6
8	Module	CPU	fADC125	fADC125	fADC125	fADC125	fADC125
9	S/N						
10	Channel						
11	P2		FDC1,C1,U73-96A	FDC1,C1,U97A-120	FDC1,C2,U73-96A	FDC1,C2,D85B-108B	FDC1,C2,U97
12	P1		FDC1,C1,U49-72	FDC1,C1,U121-144	FDC1,C2,U49-72	FDC1,C2,D49-72	FDC1,C2,U12
13	P0		FDC1,C1,U1-24	FDC1,C1,U169-192	FDC1,C2,U1-24	FDC1,C2,D1-24	FDC1,C2,U25
14							
15	Cable Manager	VCM-U2-7-F-A					
16							
17	LABELS	FROM	FDC1,C1,U73-96A	FDC1,C1,U97A-120	FDC1,C2,U73-96A	FDC1,C2,D85B-108B	FDC1,C2,U97
18		TO	U2-7-TOP-3	U2-7-TOP-4	U2-7-TOP-5	U2-7-TOP-6	U2-7-TOP-7
19							
20		FROM	FDC1,C1,U49-72	FDC1,C1,U121-144	FDC1,C2,U49-72	FDC1,C2,D49-72	FDC1,C2,U12
21		TO	U2-7-TOP-3	U2-7-TOP-4	U2-7-TOP-5	U2-7-TOP-6	U2-7-TOP-7
22							
23							
24	FROM	FDC1,C1,U1-24	FDC1,C1,U169-192	FDC1,C2,U1-24	FDC1,C2,D1-24	FDC1,C2,U25	
25	TO	U2-7-TOP-3	U2-7-TOP-4	U2-7-TOP-5	U2-7-TOP-6	U2-7-TOP-7	
26							
27							
28							
29	TAB COLOR CODE						
30	fADC250	fADC125	F1TDC	DISC	HV	LV/BIAS	
31							
32							

Normal View Ready Sum=0

# Converting Spreadsheet into SQLite DB

```
harriet:TranslationTable>./xlsx2csv.py -s 0 Crate\ \&\ Chassis\ -\ Channel\ Assignments-RO.xlsx > tt.csv
```

```
harriet:TranslationTable>./tt_csv2db.py tt.csv
```

```
Found 72 crates
```

```
Linking BCAL .... 1536 adc channels, 1152 tdc channels, and 1152 discriminator channels linked.
```

```
Linking TOF .... 176 adc channels, 176 tdc channels, and 176 discriminator channels linked.
```

```
Linking TAGM .... 120 adc channels, 120 tdc channels, and 120 discriminator channels linked.
```

```
Linking TAGH .... 233 adc channels, 233 tdc channels, and 233 discriminator channels linked.
```

```
Linking FCAL .... 2801 adc channels linked.
```

```
Linking ST .... 30 adc channels, 30 tdc channels, and 30 discriminator channels linked.
```

```
Linking CDC .... 3522 adc channels linked.
```

```
Linking PSC .... 16 adc channels, 16 tdc channels, and 16 discriminator channels linked.
```

```
Linking PS .... 290 adc channels linked.
```

```
Linking FDC_Wires .... 2304 tdc channels and 0 discriminator channels linked.
```

```
Linking FDC_Cathodes .... 10368 adc channels linked.
```

```
harriet:TranslationTable>
```

```
harriet:TranslationTable>sqlite3 tt.db
```

```
SQLite version 3.7.7 2011-06-25 16:35:41
```

```
Enter ".help" for instructions
```

```
Enter SQL statements terminated with a ";"
```

```
sqlite> SELECT area,count(*) FROM Crate GROUP BY area;
```

```
D2|16
```

```
N1|10
```

```
S1|10
```

```
T1|7
```

```
U1|7
```


```
U2|22
```

```
sqlite> SELECT count(*) FROM Channel;
```

```
26169
```

```
sqlite> .q
```

```
harriet:TranslationTable>
```



DB makes it easy to do things like count the number of crates in each area...

... or the total number of channels

```
tt.csv
tt.csv > No Selection
1 ----- 1 - T1-1-TOP
2 Crate,T1-1-TOP,,,,,,,,,,,,,,,,,,,,,
3 S/N,1188039,,,,,,,,,,,,,,,,,,,,,
4
5 Sub-System,TAGM,,,,,,,,,,,,,,,,,,,,,
6 Function,fADC250,1V,,,,,,,,,,,,,,,,,,,,,
7 Slot,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
8 Module,CPU,,fADC250,fADC250,fADC250,fADC250,fADC250,fADC250,fADC250,fADC250,CTP,SD,,,,,,,,,TI
9 S/N,,,ACDI075,ACDI005,ACDI066,ACDI006,ACDI048,FACDI096,ACDI004,ACDI002,,85,,,,,,,,,277
10 Channel,,,,,,,,,,,,,,,,,,,,,
11 0,,,TAGM-A-1,TAGM-A-17,TAGM-A-33,TAGM-A-49,TAGM-A-65,TAGM-A-81,TAGM-A-97,TAGM-A-113,,,,,,,,,
12 1,,,TAGM-A-2,TAGM-A-18,TAGM-A-34,TAGM-A-50,TAGM-A-66,TAGM-A-82,TAGM-A-98,TAGM-A-114,,,,,,,,,
13 2,,,TAGM-A-3,TAGM-A-19,TAGM-A-35,TAGM-A-51,TAGM-A-67,TAGM-A-83,TAGM-A-99,TAGM-A-115,,,,,,,,,
14 3,,,TAGM-A-4,TAGM-A-20,TAGM-A-36,TAGM-A-52,TAGM-A-68,TAGM-A-84,TAGM-A-100,TAGM-A-116,,,,,,,,,
15 4,,,TAGM-A-5,TAGM-A-21,TAGM-A-37,TAGM-A-53,TAGM-A-69,TAGM-A-85,TAGM-A-101,TAGM-A-117,,,,,,,,,
16 5,,,TAGM-A-6,TAGM-A-22,TAGM-A-38,TAGM-A-54,TAGM-A-70,TAGM-A-86,TAGM-A-102,TAGM-A-118,,,,,,,,,
17 6,,,TAGM-A-7,TAGM-A-23,TAGM-A-39,TAGM-A-55,TAGM-A-71,TAGM-A-87,TAGM-A-103,TAGM-A-119,,,,,,,,,
18 7,,,TAGM-A-8,TAGM-A-24,TAGM-A-40,TAGM-A-56,TAGM-A-72,TAGM-A-88,TAGM-A-104,TAGM-A-120,,,,,,,,,
19 8,,,TAGM-A-9,TAGM-A-25,TAGM-A-41,TAGM-A-57,TAGM-A-73,TAGM-A-89,TAGM-A-105,SPARE,,,,,,,,,
20 9,,,TAGM-A-10,TAGM-A-26,TAGM-A-42,TAGM-A-58,TAGM-A-74,TAGM-A-90,TAGM-A-106,SPARE,,,,,,,,,
21 10,,,TAGM-A-11,TAGM-A-27,TAGM-A-43,TAGM-A-59,TAGM-A-75,TAGM-A-91,TAGM-A-107,SPARE,,,,,,,,,
22 11,,,TAGM-A-12,TAGM-A-28,TAGM-A-44,TAGM-A-60,TAGM-A-76,TAGM-A-92,TAGM-A-108,SPARE,,,,,,,,,
23 12,,,TAGM-A-13,TAGM-A-29,TAGM-A-45,TAGM-A-61,TAGM-A-77,TAGM-A-93,TAGM-A-109,SPARE,,,,,,,,,
24 13,,,TAGM-A-14,TAGM-A-30,TAGM-A-46,TAGM-A-62,TAGM-A-78,TAGM-A-94,TAGM-A-110,SPARE,,,,,,,,,
25 14,,,TAGM-A-15,TAGM-A-31,TAGM-A-47,TAGM-A-63,TAGM-A-79,TAGM-A-95,TAGM-A-111,SPARE,,,,,,,,,
26 15,,,TAGM-A-16,TAGM-A-32,TAGM-A-48,TAGM-A-64,TAGM-A-80,TAGM-A-96,TAGM-A-112,SPARE,,,,,,,,,
27 Cable Manager,VCM-T1-1-F-A,,,,,,,,,VCM-T1-1-F-B,,,,,,,,,
28 TAB COLOR CODE,,,,,
29 fADC250,fADC125,F1TDC,DISC,HV,LV/BIAS
30 ----- 2 - T1-1-BOT
31 Crate,T1-1-BOT,,,,,,,,,,,,,,,,,,,,,
32 S/N,1188021,,,,,,,,,,,,,,,,,,,,,
33
34 Sub-System,TAGH,,,,,,,,,,,,,,,,,,,,,
35 Function,fADC250,0.5V,,,,,,,,,,,,,,,,,,,,,
36 Slot,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21
37 Module,CPU,,fADC250,fADC250,fADC250,fADC250,fADC250,fADC250,fADC250,fADC250,CTP,SD,fADC250,fADC2
38 S/N,,,ACDI001,ACDI073,ACDI068,ACDI070,ACDI095,ACDI062,ACDI058,ACDI072,,101,ACDI090,ACDI106,ACDI0
```



# tt\_csv2db.py

- Python script reads in the CSV formatted dump of spreadsheet and parses it
- SQLite DB is created and filled with DAQ channel info
- Code sections for each detector system include knowledge about the indexing for that particular system
  - Table is made for each detector readout system
  - Column(s) hold unique id to link it to DAQ “Channel” table

*<https://halldsvn.jlab.org/repos/trunk/online/src/TranslationTable>*

**Tables:**

BCAL	Crate	FDC_Wires	PSC	TAGM
CDC	FCAL	Module	ST	TOF
Channel	FDC_Cathodes	PS	TAGH	

# BCAL linking code in *tt\_csv2db.py*

```
206
207 #=====
208 # BCAL
209 #
210 # Modules are numbered 1-48 clockwise starting at 9 o'clock position
211 # looking downstream.
212 # Layers are numbered 1-4 going outwards from beamline
213 # Sectors are numbered 1-4 in the clockwise direction for upstream,
214 # counter-clockwise for downstream
215 # (n.b. the wiring of lemo connectors should take care to make
216 # sector 1,2,... go into fADC250 channel 0,1,... for both upstream
217 # and downstream)
218 #=====
219 sys.stdout.write("Linking BCAL ....") ; sys.stdout.flush()
220 cur.execute("CREATE TABLE BCAL(module INT, layer INT, sector INT, end TEXT, adc_chanid INTEGER, tdc_chanid INTEGER, disc_chanid INTEGER)")
221 for module in range(1, 49):
222     for layer in range(1, 5):
223         for sector in range(1, 5):
224             for end in ['U', 'D']:
225                 daq_chan = (sector-1) + (layer-1)*4;
226                 (adc_chanid, tdc_chanid, disc_chanid) = (-1, -1, -1)
227                 try:
228                     cur.execute("SELECT chanid FROM Channel WHERE name='BCAL-%d-%s-A-%d'" % (module,end,daq_chan))
229                     (adc_chanid,) = cur.fetchone()
230                     cur.execute("SELECT chanid FROM Channel WHERE name='BCAL-%d-%s-E-%d'" % (module,end,daq_chan))
231                     (tdc_chanid,) = cur.fetchone()
232                     cur.execute("SELECT chanid FROM Channel WHERE name='BCAL-%d-%s-T-%d'" % (module,end,daq_chan))
233                     (disc_chanid,) = cur.fetchone()
234                 except:
235                     pass # Do nothing here
236
237                 cur.execute("INSERT INTO BCAL VALUES(%d,%d,%d,'%s',%d,%d,%d)" %(module,layer,sector,end,adc_chanid, tdc_chanid, disc_chanid))
238 cur.execute("SELECT count(*) FROM BCAL WHERE adc_chanid>=0") ; (Nbcalf_adc,) = cur.fetchone()
239 cur.execute("SELECT count(*) FROM BCAL WHERE tdc_chanid>=0") ; (Nbcalf_tdc,) = cur.fetchone()
240 cur.execute("SELECT count(*) FROM BCAL WHERE disc_chanid>=0") ; (Nbcalf_disc,) = cur.fetchone()
241 print " %d adc channels, %d tdc channels, and %d discriminator channels linked." % (Nbcalf_adc, Nbcalf_tdc, Nbcalf_disc)
242
```

Hall-D Translation Table Browser/Editor

localhost/~david/TranslationTable/index.php?table=ST

### Hall-D Translation Table Browser

[TAGM](#) : 120  
[TAGH](#) : 233  
[PS](#) : 290  
[PSC](#) : 16  
[ST](#) : 30  
[CDC](#) : 3522  
[FDC Wires](#) : 2304  
[FDC Cathodes](#) : 10368  
[BCAL](#) : 1536  
[TOF](#) : 176  
[FCAL](#) : 2801

ST			
id	adc_chanid	tdc_chanid	disc_chanid
1	<a href="#">1361</a>	<a href="#">1761</a>	<a href="#">1393</a>
2	<a href="#">1362</a>	<a href="#">1762</a>	<a href="#">1394</a>
3	<a href="#">1363</a>	<a href="#">1763</a>	<a href="#">1395</a>
4	<a href="#">1364</a>	<a href="#">1764</a>	<a href="#">1396</a>
5	<a href="#">1365</a>	<a href="#">1765</a>	<a href="#">1397</a>
6	<a href="#">1366</a>	<a href="#">1766</a>	<a href="#">1398</a>
7	<a href="#">1367</a>	<a href="#">1767</a>	<a href="#">1399</a>
8	<a href="#">1368</a>	<a href="#">1768</a>	<a href="#">1400</a>
9	<a href="#">1369</a>	<a href="#">1769</a>	<a href="#">1401</a>
10	<a href="#">1370</a>	<a href="#">1770</a>	<a href="#">1402</a>
11	<a href="#">1371</a>	<a href="#">1771</a>	<a href="#">1403</a>
12	<a href="#">1372</a>	<a href="#">1772</a>	<a href="#">1404</a>
13	<a href="#">1373</a>	<a href="#">1773</a>	<a href="#">1405</a>
14	<a href="#">1374</a>	<a href="#">1774</a>	<a href="#">1406</a>
15	<a href="#">1375</a>	<a href="#">1775</a>	<a href="#">1407</a>
16	<a href="#">1376</a>	<a href="#">1776</a>	<a href="#">1408</a>
17	<a href="#">1377</a>	<a href="#">1777</a>	<a href="#">1409</a>
18	<a href="#">1378</a>	<a href="#">1778</a>	<a href="#">1410</a>
19	<a href="#">1379</a>	<a href="#">1779</a>	<a href="#">1411</a>
20	<a href="#">1380</a>	<a href="#">1780</a>	<a href="#">1412</a>
21	<a href="#">1381</a>	<a href="#">1781</a>	<a href="#">1413</a>
22	<a href="#">1382</a>	<a href="#">1782</a>	<a href="#">1414</a>
23	<a href="#">1383</a>	<a href="#">1783</a>	<a href="#">1415</a>
24	<a href="#">1384</a>	<a href="#">1784</a>	<a href="#">1416</a>
25	<a href="#">1385</a>	<a href="#">1785</a>	<a href="#">1417</a>
26	<a href="#">1386</a>	<a href="#">1786</a>	<a href="#">1418</a>
27	<a href="#">1387</a>	<a href="#">1787</a>	<a href="#">1419</a>
28	<a href="#">1388</a>	<a href="#">1788</a>	<a href="#">1420</a>
29	<a href="#">1389</a>	<a href="#">1789</a>	<a href="#">1421</a>
30	<a href="#">1390</a>	<a href="#">1790</a>	<a href="#">1422</a>

It's easy to build PHP web pages to browse content of SQLite DB

Hall-D Translation Table Channel Viewer

localhost/~david/TranslationTable/show\_c

### U1-8-BOT

(ST.tdc\_chanid 1768)

ST,Channel	Module,Crate
<b>chanid</b> : 1768	<b>crateid</b> : 12
<b>moduleid</b> : 120	<b>name</b> : U1-8-BOT
<b>name</b> : ST-T-8	<b>area</b> : U1
<b>channel</b> : 7	<b>rack</b> : <a href="#">8</a>
<b>id</b> : 8	<b>location</b> : BOT
<b>adc_chanid</b> : 1368	<b>SN</b> :
<b>tdc_chanid</b> : 1768	<b>Function</b> : F1TDCV2
<b>disc_chanid</b> : 1400	<b>roid</b> : 12
	<b>moduleid</b> : 120
	<b>slot</b> : 3
	<b>type</b> : F1TDCV2



# Still to do ...

1. Complete browser pages
2. Write script to generate XML from SQLite DB
  - May also put directly into CCDB
3. Write code to get XML from CCDB and use it to translate simulated data into raw data format using the actual channel coordinates
4. Write code to get XML from CCDB and use it to translate raw data into detector coordinates
5. Write editor web pages to allow modification of SQLite DB