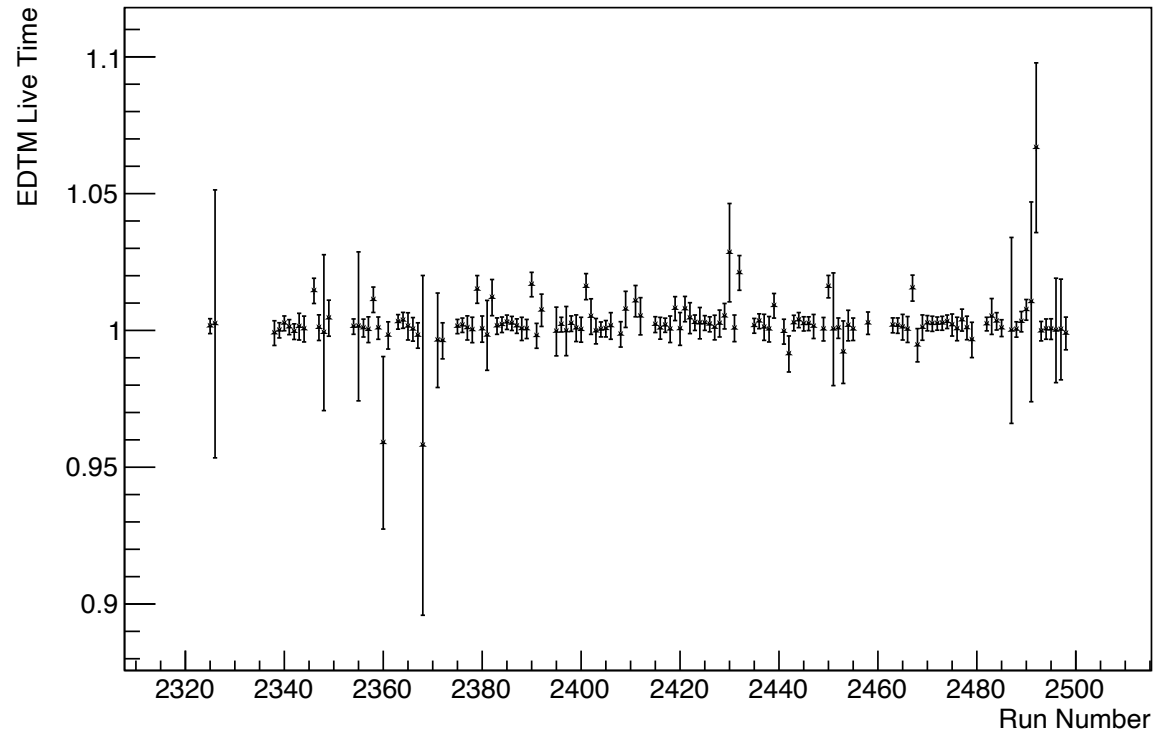


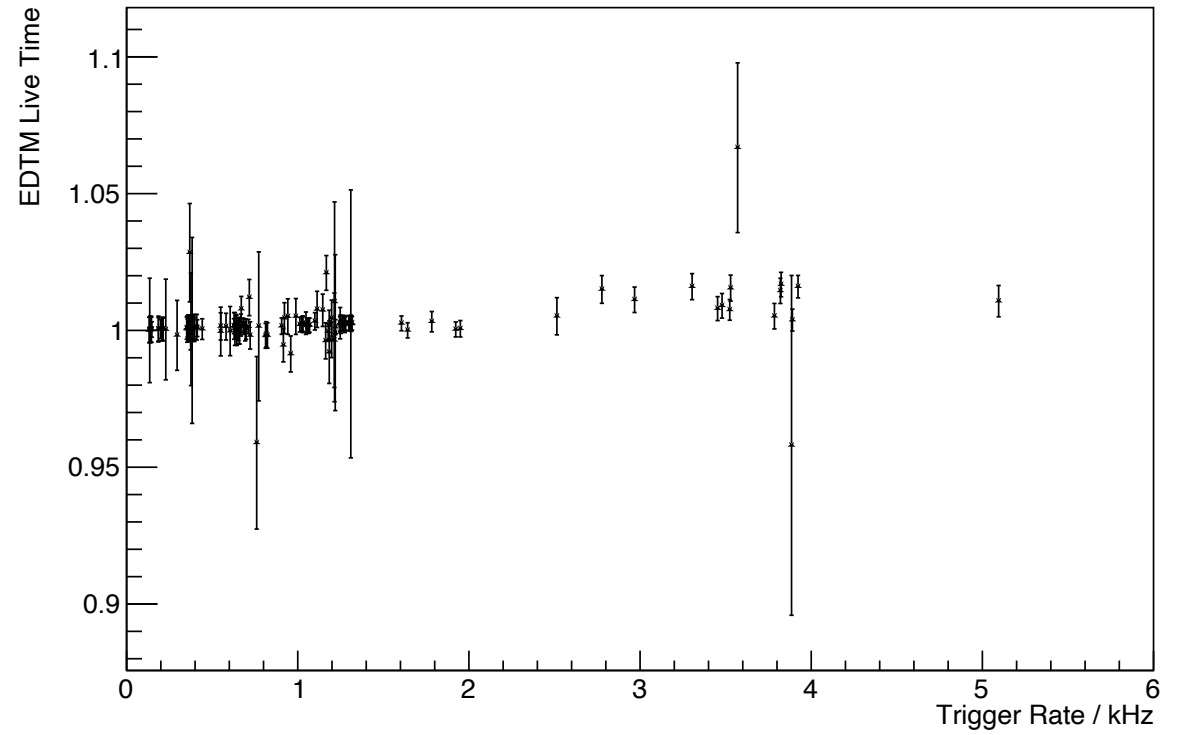
EDTM Dead Time

All ps3 and ps6 runs

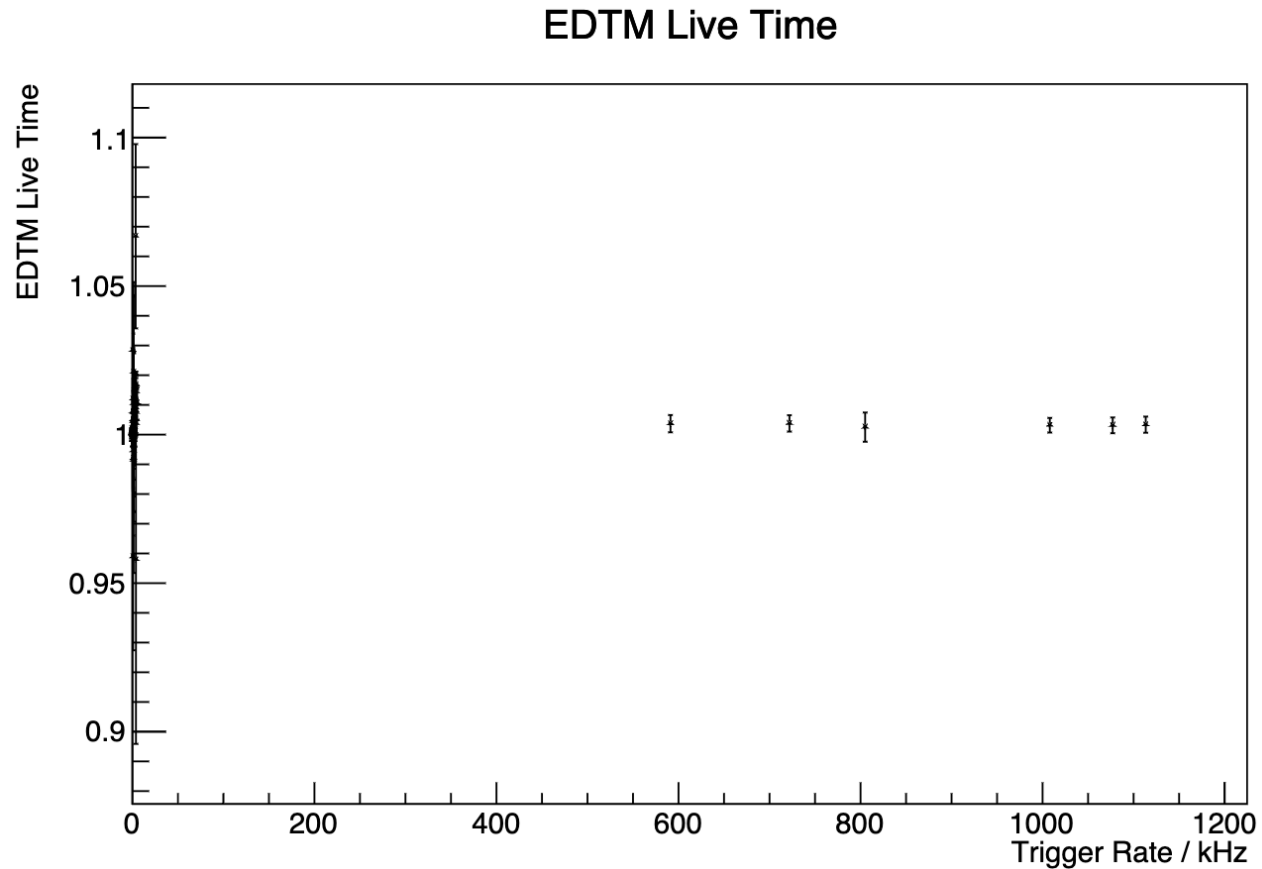
EDTM Live Time



EDTM Live Time



EDTM Dead Time



Questions about the EDTM dead time

1. Some of the runs can have a very low live time
2. The EDTM live time can be larger than 100%
3. The EDTM live time is always close to 100% with the increase of trigger rate, even for runs about 1 million Hz

All the runs with
EDTM LT < 0.9

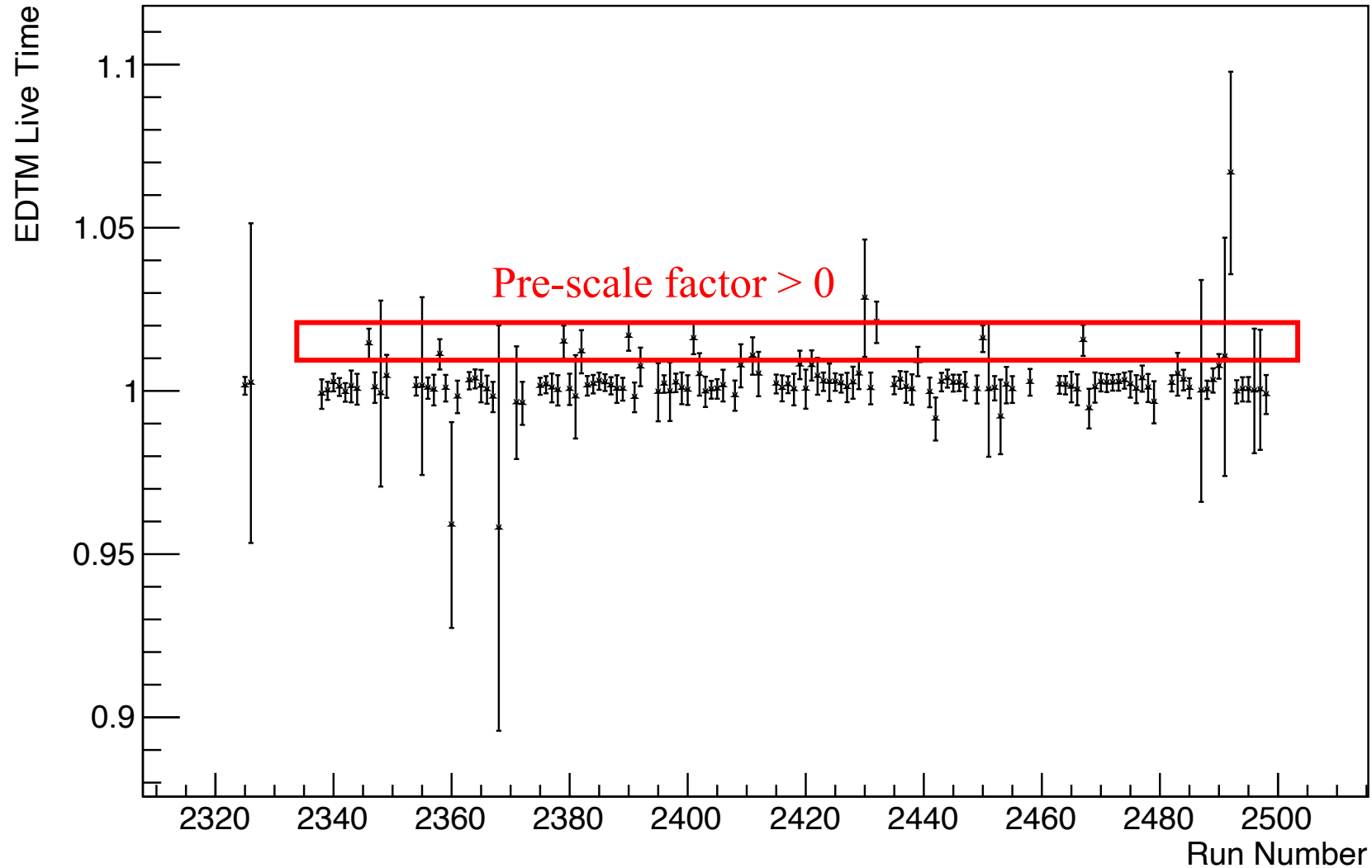
RunNo	EDTM_Live_Time	EDTM_Events	EDTM_Scalers	TI_Live_Time	RunType(Google sheet)
Kin_x50_2					
1584	0.854422	156032	182617	85.14%	
1639	0.894962	202784	226584		no end-of-run log
1641	0.490097	101306	206706	54.05%	
1643	0.754093	153347	203353	80.18%	
1673	0.704805	141699	201047	72.38%	
1674	0.775293	185233	238920	78.06%	
1675	0.71777	153455	213794	74.28%	
1740	0.646015	2367	3664	68.47%	Junk(very short)
Kin_x60_3					
1845	0.892262	12671	28402	88.24%	
1870	0.762669	27119	35558	77.36%	Junk(coda issue)
Kin_x36_3					
2020	0.444381	2325	5232	62.43%	Junk(very short)
2021	0.840248	405	964	95.06%	Junk(very short)
2032	0.382514	210	549	78.73%	Junk(very short)
2046	0.724034	37093	51231	77.51%	
2053	0.488188	341	1397	79.2%	Junk(very short)
2054	0.786753	2435	9285	78.64%	Junk
2058	0.234998	560	2383	39.23%	Junk(very short)
2059	0.832377	629	2267	92.65%	Junk(very short)
2062	0.296353	24736	83468	25.46%	*
2063	0.128045	552	4311		no end-of-run log
2065	0.0782058	2101	26865		no end-of-run log
2066	0.487213	221	2268		no end-of-run log
2072	0.856472	40321	47078	86.52%	
2074	0.157001	37	707		no end-of-run log
2078	0.739612	2041	24836	73.38%	Junk
2079	0.894375	4945	49761	85.75%	
2084	0.447604	551	2462		no end-of-run log
2085	0.596865	4190	35100	60.26%	*
2086	0.718862	3763	47112	72.20%	*
2109	0.767789	9215	12002	77.16%	Junk *
2113	0.817366	273	668	96.01%	Junk(very short)
2123	0.570538	10984	19252	57.09%	*
2124	0.686621	6056	8820	67.86%	Junk *
2125	0.80997	5622	6941	79.73%	Junk *
2126	0.884587	13275	15007	87.25%	Junk *
2133	0.899204	55480	61699	84.69 %	Beam Studies
Kin_x36_5					
2198	0.885198	906	2047	85.39%	Junk*
2282	0.870229	1140	1310	85.69%	Junk*

EDTM Dead Time

All ps3 and ps6 runs

Why EDTM live time could be larger than 100% ?

EDTM Live Time



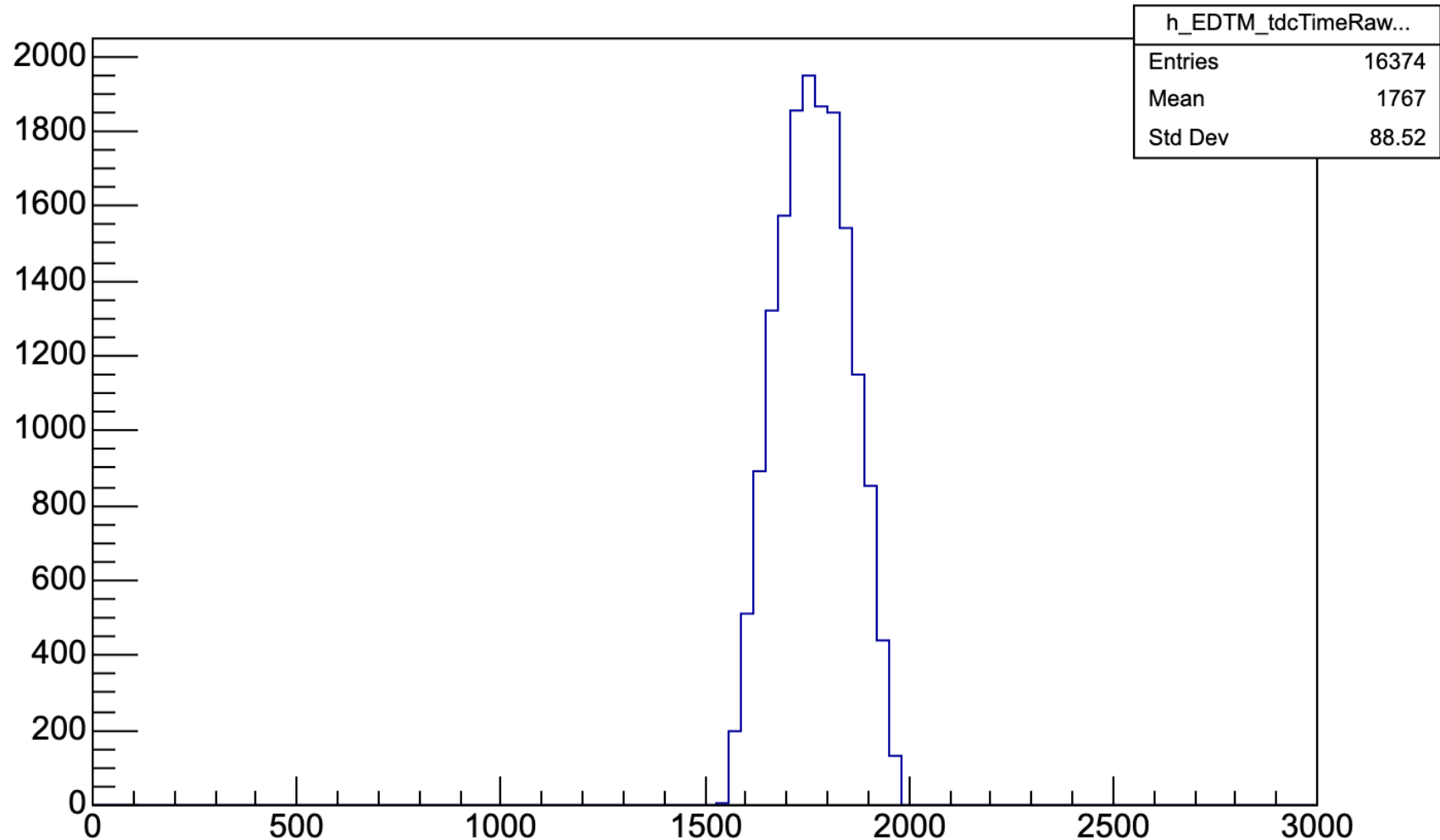
➤ End-of-run problem ✘

EDTM Dead Time

All ps3 and ps6 runs

Why EDTM live time could be larger than 100% ?

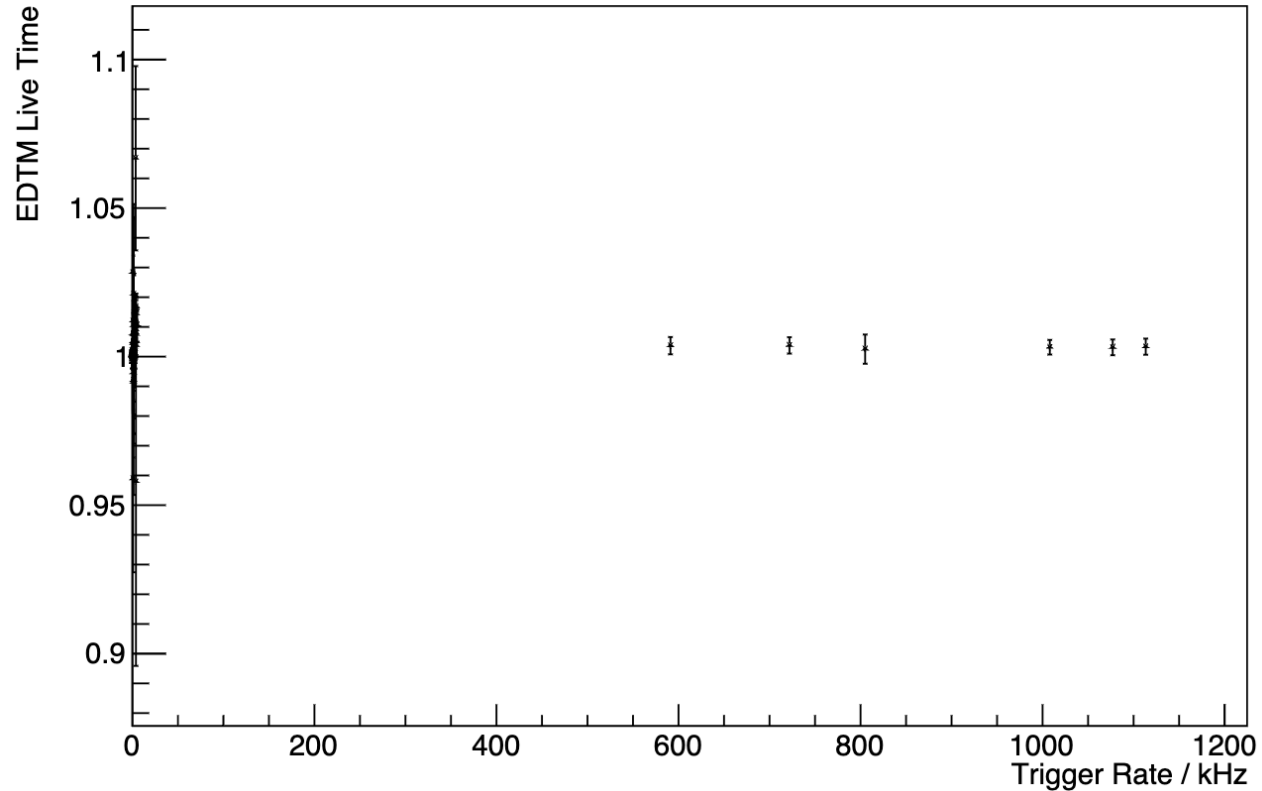
h_EDTM_tdcTimeRaw_2346



- End-of-run problem ❌
- Noise in EDTM_tdcTimeRaw ❌
- Document from PionLT shows the EDTM LT can also be larger than 100 % ...
- Other explanations?

EDTM Dead Time

EDTM Live Time



Questions about the EDTM dead time

1. Some of the runs can have a very low live time ✓
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The last two questions could be related to the same issue
I'm worried whether the EDTM system is working well...