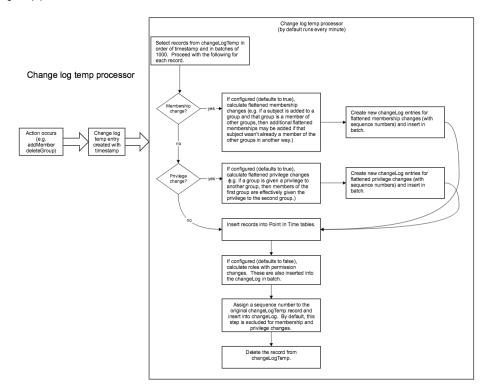
## **Grouper Changelog**

Grouper changes cause change log temp entries, these get processed, and then are pumped to change log consumers. The first process is the change log temp processor



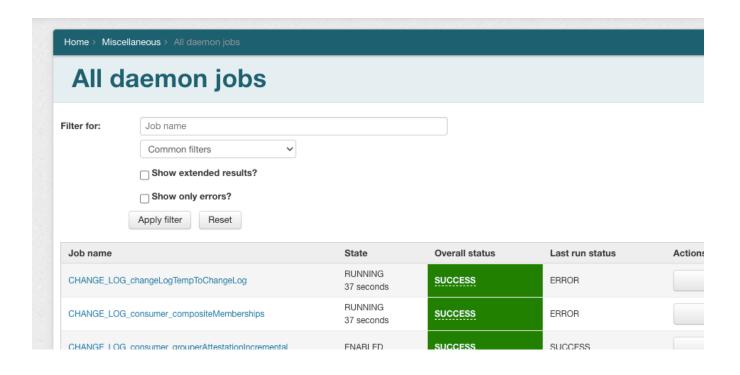
In v4.11.0+ and v5.8.0+ The change log consumer run continuously looking for new work. The composite processor will make sure composite changes are made (and not in a transaction with the change that edited the composite or other membership). In order to see progress show subjobs on the daemon screen

				an de sin sin										
Home > M	liscellaneou	s> All da	emon jobs > Daemon lo	gs										
Dae	mor	ı lo	gs											
Filter for:			CHANGE_LOG_ch	CHANGE_LOG_changeLogTempToChangeLog										
Start time between:			yyyy-mm-dd hh:mi:	:ss yyyy-	yyyy-mm-dd hh:mi:ss									
End time between: Last updated between: Subjobs:			yyyy-mm-dd hh:mi:	:ss yyyy	yyyy-mm-dd hh:mi:ss									
			yyyy-mm-dd hh:mi:	yyyy-mm-dd hh:mi:ss yyyy-mr										
			Show subjobs	Show subjobs										
Status:			Success Err	ror Started	Running	g 🗆 Wa	arning [	Config	error $\square$	Subject p	roblems			
Number of r	ows:		400	400										
Status	Loaded group	Job type	ANGE_LOG_changeLog1	Apply filter  TempToChangeL  End time		Millis	Millis get data	Millis load data	Total count	Add count	Update count	Delete	Un	
Started	N/A	subjob	2024-02-27 23:09:19.0						0	0	0	0	0	
Success	N/A	subjob	2024-02-27 23:08:18.0	2024-02-27 23	:09:19.0	60421			0	0	0	0	0	
Success	N/A	subjob	2024-02-27 23:07:18.0	2024-02-27 23	:08:18.0	60352			0	0	0	0	0	
Success	N/A	subjob	2024-02-27 23:06:18.0	2024-02-27 23	:07:18.0	60268			1	0	0	0	0	
Success	N/A	subjob	2024-02-27 23:05:17.0	2024-02-27 23	:06:18.0	60491			5	0	0	0	0	
Started	N/A	overall	2024-02-27 23:04:17.0						0	0	0	0	0	
Success	N/A	subjob	2024-02-27 23:04:17.0	2024-02-27 23	:05:17.0	60284			0	0	0	0	0	

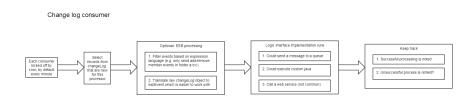
Here is the composite daemon with subjobs

Home > Miscellaneous > All daemon jobs > Daemon logs														
Daemon logs														
Filter for:			CHANGE_LOG_co	CHANGE_LOG_consumer_compositeMemberships										
Start time b	etween:		yyyy-mm-dd hh:mi:	yyyy-mm-dd hh:mi:ss yyyy-mm-dd hh:mi:ss										
End time be	tween:		yyyy-mm-dd hh:mi:	yyyy-mm-dd hh:mi:ss yyyy-mm-dd hh:mi:ss										
Last update	d between:		yyyy-mm-dd hh:mi:	yyyy-mm-dd hh:mi:ss yyyyy-mm-dd hh:mi:ss										
Subjobs:			Show subjobs	Show subjobs										
Status:			Success Err	Success Error Started Running Warning Config error Subject problems										
Number of I	rows:		400	400										
				Apply filter R	eset									
7 logs found	d for job nar	ne: CHAN	GE_LOG_consumer_con	npositeMemberships	3									
	Loaded	Job				Millis get	Millis load	Total	Add	Update	Delete	Unr		
Status	group	type	Start time	End time	Millis	data	data	count	count	count	count	cou		
Started	N/A	subjob	2024-02-27 23:10:02.0					0	0	0	0	0		
Success	N/A	subjob	2024-02-27 23:09:01.0	2024-02-27 23:10:0	2.0 60485			0	0	0	0	0		
Success	N/A	subjob	2024-02-27 23:08:01.0	2024-02-27 23:09:0	1.0 60287			0	0	0	0	0		
Success	N/A	subjob	2024-02-27 23:07:01.0	2024-02-27 23:08:0	1.0 60428			0	0	0	0	0		
Success	N/A	subjob	2024-02-27 23:06:00.0	2024-02-27 23:07:0	1.0 60346			2	1	0	0	0		
Started	N/A	overall	2024-02-27 23:05:00.0					0	0	0	0	0		

Note you will see these in a constant running state which is normal



This is the second process...



Breakdown of time used to process 1000 consecutive temp change log entries (first process) for membership adds to the same group:

- 3.2% starting, stopping, committing overall transactions
- 8% deleting from temp change log
- 10% querying member in point in time
- 10% verifying membership doesn't already exist in point in time
- 1.5% querying group in point in time
- 1.5% querying field in point in time
- 7.3% checking if membership is being re-enabled (was previously disabled)
- 15.4% finding flattened memberships
- 14.8% saving change log entries
- 12.5% other overhead with writing flattened memberships in change log (e.g. querying data to put in the change log)
- 11% saving point in time memberships