

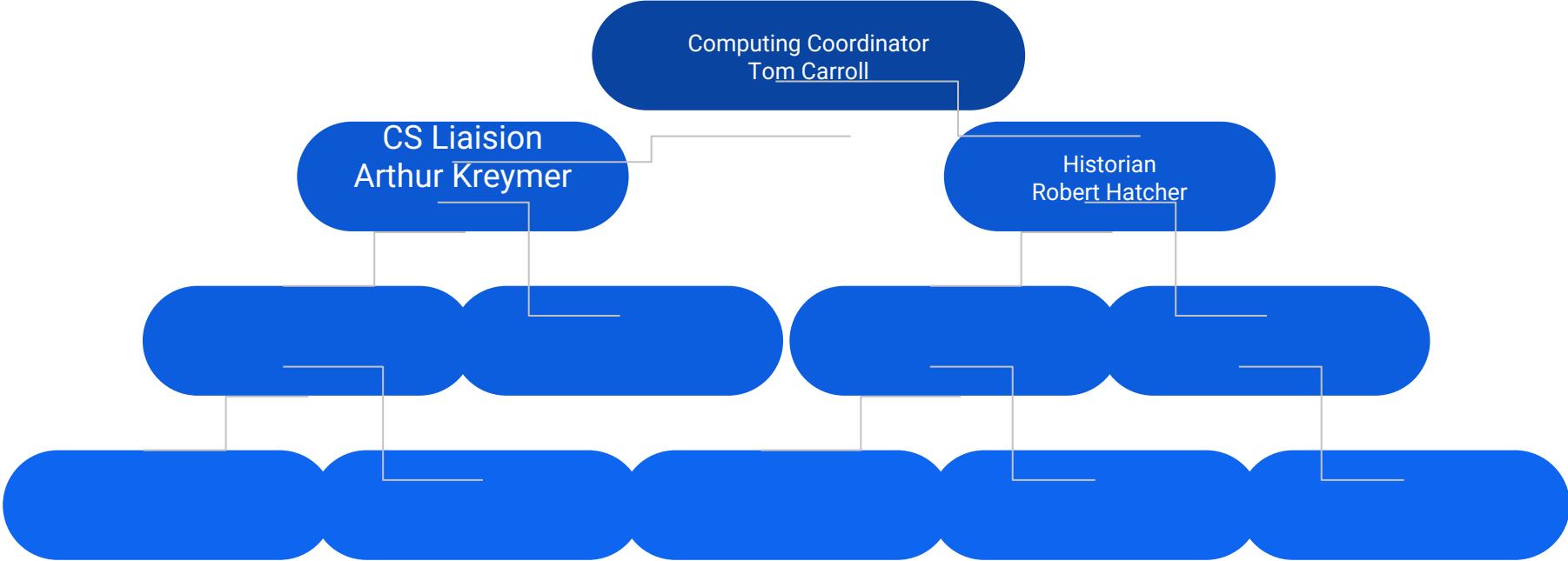


# FCRSG FY24 Experiment Prep

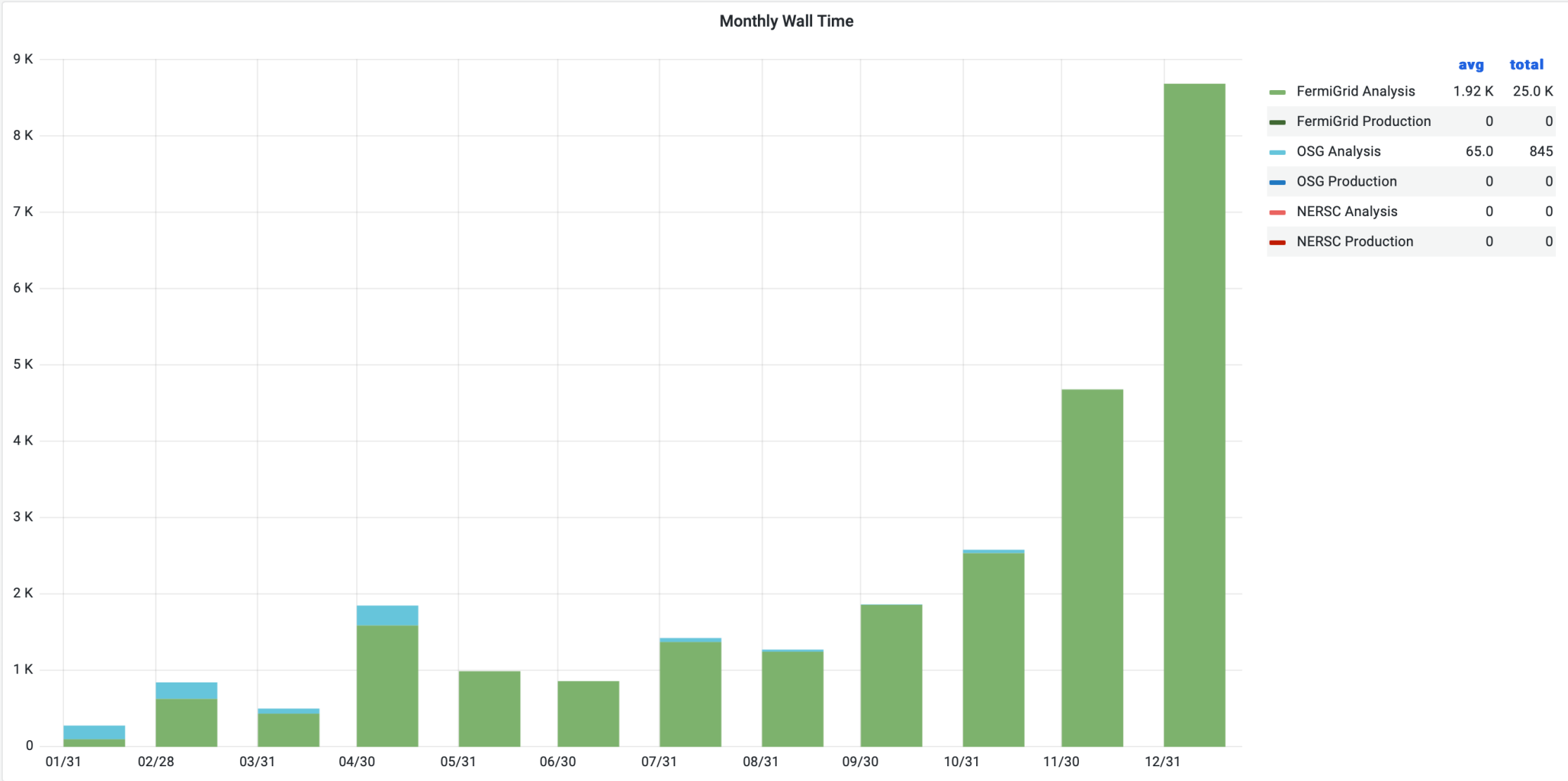
MINOS+

# Organization Chart for Offline Computing

Note any coordinator changes since last year  
Who is your CS Liaison? Do you need another if you only have one?



# Experiment CPU Usage over the past year



# What are you computing goals over the next 5 years?

Goals	Where does the experiment need to contribute	Where does SCD need to contribute
Ongoing final analysis		
Data preservation Expect to need continued virtual machine access (at least 2)	Formal planning and execution	Joint effort

**Doesn't have to fit on one slide; use as many as needed.**



# Campaign Schedules

	2024	2025	2026	2027	2028
Processing campaigns (start month-end month if known). <b>Include when you expect to be prestaging</b>	Neutrino 2024 Campaign: ~April-July				
Storage + CPU estimates (call out any special resource needs if known, e.g. HPC or GPU). <b>Include amount(s) to be prestaged and file families, in addition to space needed for new outputs.</b>	Neutrino24: expect Less Than 4M hours, looking at 100s of GB (and less than 1TB)				
Conference or result targets (month if known)	Results for Neutrino 2024 conference in mid-June				

# CPU @ Fermilab Prediction Going Forward and Accuracy of Your Predictions [units of Million (1 CPU, 2GB) wall hours per CY]

	2019	2020	2021	2022	2023	2024	2025	2026	2027
Requested (could have multiple values for different MWC combinations)	12	6	2	1	1	1	1	1	1
Actual Used	3.63	6.2	14.8	0	0	N/A	N/A	N/A	N/A
Efficiency	85%	98%	80%	0%	0%	N/A	N/A	N/A	N/A

Looking for five-year projections this cycle



# CPU – non-FNAL HTC Resources Going Forward and Accuracy of Your Predictions [units of Million (1 CPU, 2GB) wall hours per CY]

	2019	2020	2021	2022	2023	2024	2025	2026	2027
Requested (could have multiple values for different MWC combinations)	—	—	—	—	1	1	1	1	1
Actual Used	—	—	—	0	0	N/A	N/A	N/A	N/A
Efficiency	%	%	%	%	%	N/A	N/A	N/A	N/A

Looking for five-year projections this cycle



# CPU – HPC Resources Going Forward and Accuracy of Your Predictions [units of Million (1 CPU, 2GB) wall hours per CY]

	2019	2020	2021	2022	2023	2024	2025	2026	2027
Requested (could have multiple values for different MWC combinations)	—	—	—	—	—	—	—	—	—
Actual Used	—	—	—	—	—	N/A	N/A	N/A	N/A
Efficiency	%	%	%	%	%	N/A	N/A	N/A	N/A

Looking for five-year projections this cycle





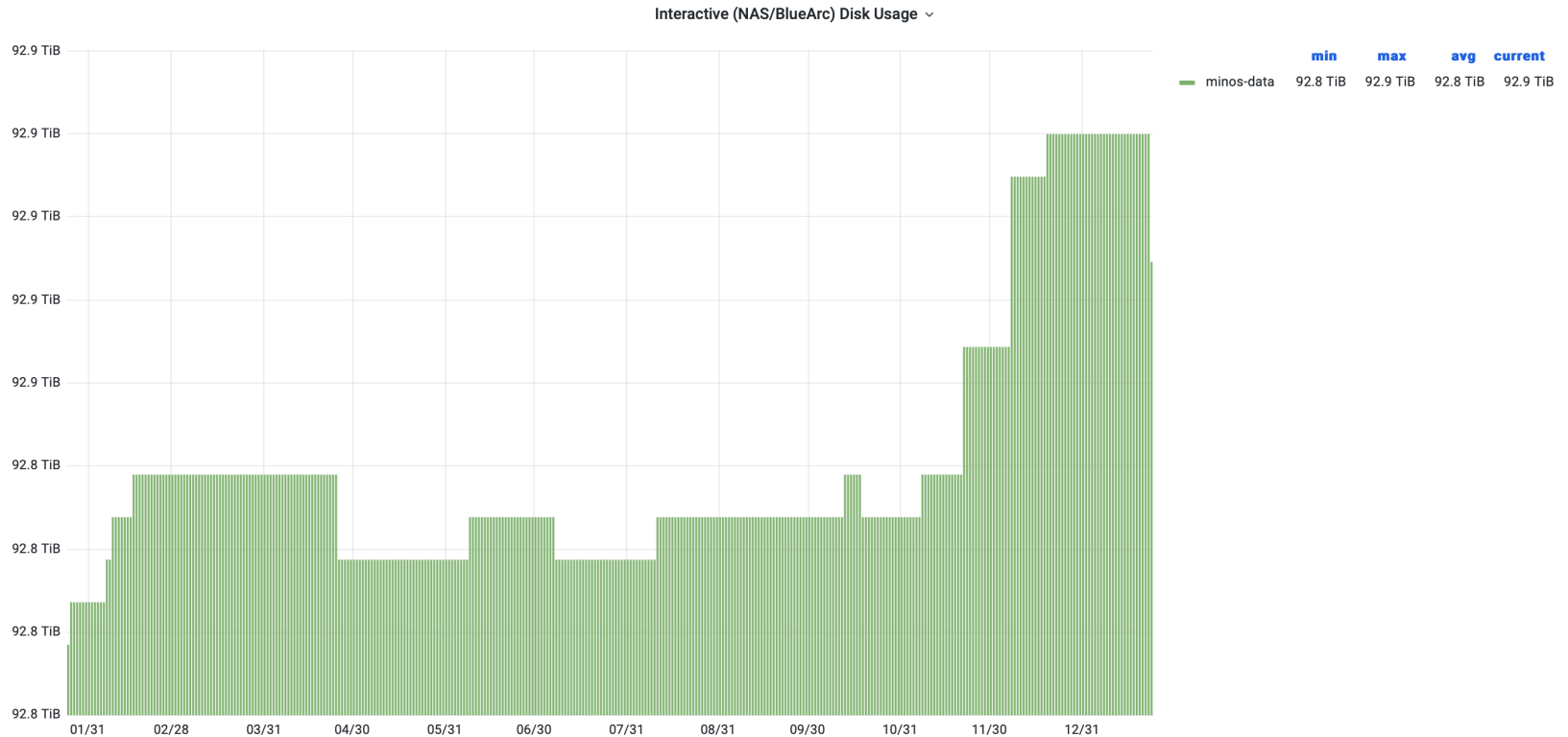
# CPU – GPU Resources Going Forward and Accuracy of Your Predictions [units of Million (1 CPU, 2GB) wall hours per CY]

	2019	2020	2021	2022	2023	2024	2025	2026	2027
Requested (could have multiple values for different MWC combinations)	—	—	—	—	—	—	—	—	—
Actual Used	—	—	—	—	—	N/A	N/A	N/A	N/A
Efficiency	%	%	%	%	%	N/A	N/A	N/A	N/A

Looking for five-year projections this cycle. Any particular GPU type(s) needed? FNAL has a budgeted amount for GPUs this year. What would be the best configuration for your work?



# Project disk Usage and Projections

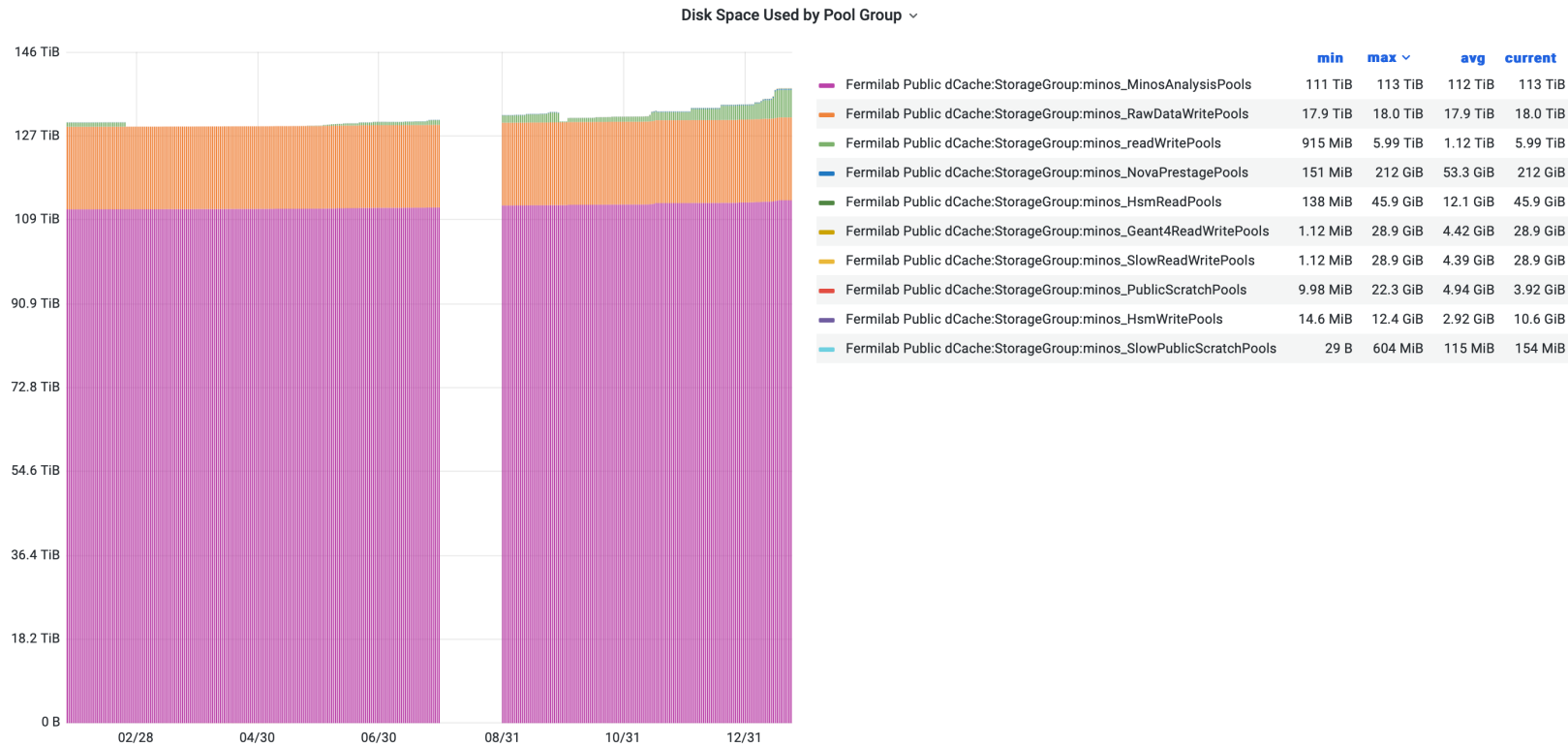


Justify how much needs to be migrated. If you can't explain what it is or you're going to do with it, strongly consider abandoning it.

Current usage: <https://fifemon.fnal.gov/monitor/d/r6UDhH-iz/sppm-sc-pmt-prep?orgId=1>

	App	Data
2022	8.4	102
2023	8.4	102
2024	8.4	102
2025	8.4	102
2026	8.4	102
2027	8.4	102

# dCache Usage and Predictions (in TB)



	Analysis (Persistent)	Other Dedicated (Write)
Current	131 TB (actual)	20 TB (actual)
2022	122	20
2023	122	20
2024	122	20
2025	131	20
2026	131	20
2027	131	20

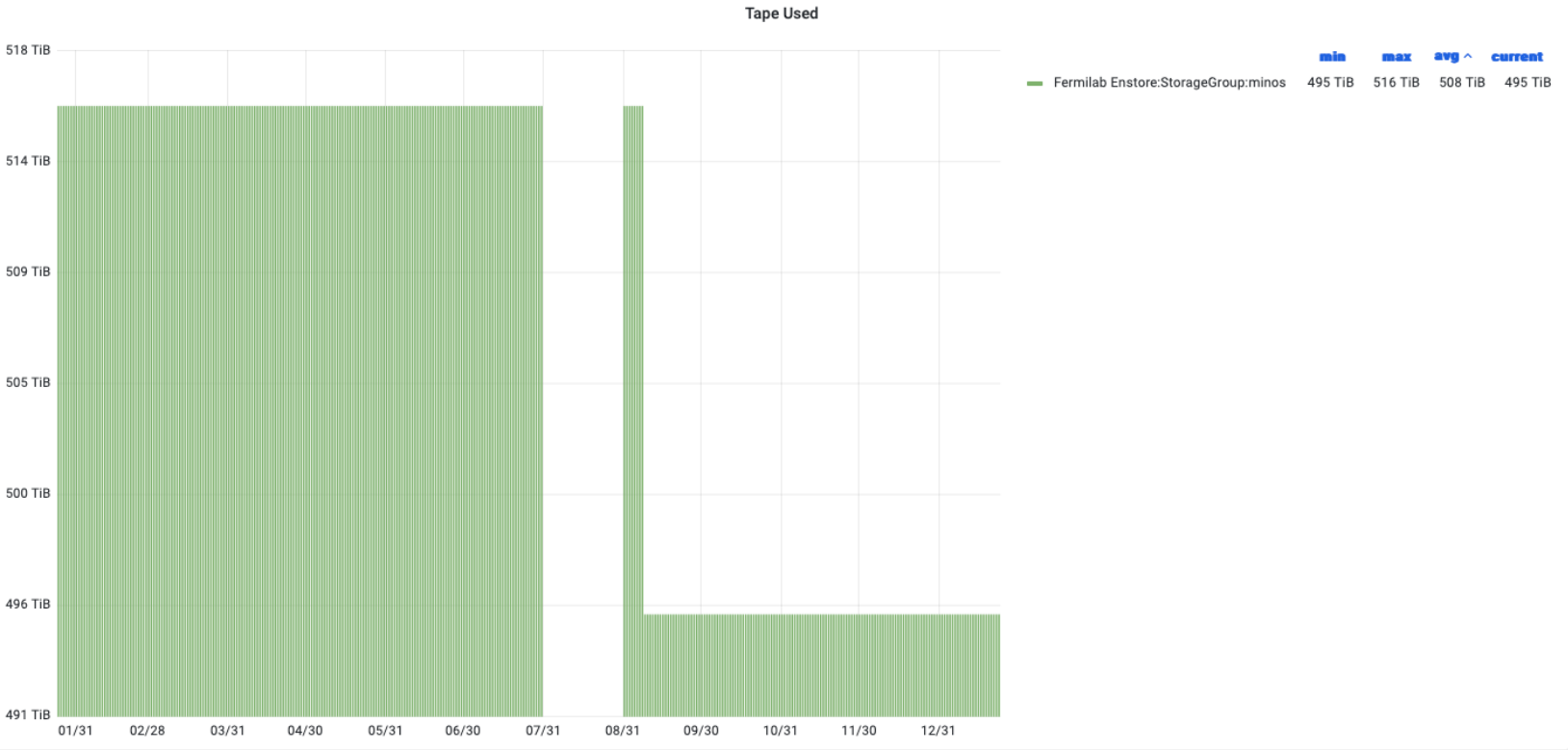
Total dedicated r/w (tape backed): — TB (Do NOT need to include current shared r/w usage)

Total persistent: **168 TB**

Total dedicated other (staging pools, etc.): —TB

**Call out any non-FNAL storage elements you have available, and how much of your total needs they will meet**

# Tape usage and predictions (in TB)



	Total Added By End of Year
At end 2021	567 TB (actual)
2022	567
2023	544
2024	544
2025	544
2026	544
2027	544

How are your file families structured? Should you revisit them?  
 See <https://fifemon.fnal.gov/monitor/d/BSnVdWDnk/tape-data> for details



# Data Lifetimes

Please describe your plans, if any, to delete any datasets

Are datasets specified with a lifetime at creation? If not, why not?

This is also a tradeoff: every dollar saved by reclaiming tapes with unneeded data is a dollar available for something else! There is an annual cost to keeping tapes alive in the library as well.

We are developing a "cold storage" strategy for the data you really never plan on looking at again.

MINOS is reviewing datasets for data preservation and scoping a long-term analysis container solution