Reference Doc for I/O Tools

No.	Name	Metrics	Open Source	Links	Special Comments
1	sysstat	Collection of CPU, IO, Processes, Tape Drive, CIFS	Yes	systat	
2	Darshan	Average I/O cost per Process, IOPS count, Access Size (POSIX)	No	Darshan – HPC I/O Characterization Tool	Only Derivative works allowed
3	Grafana	-	Yes	Grafana Labs	It's a graphing tool, needs an external data source
4	iosnoop	PID, BLOCK I/O, Bytes, Latency, Type of action	Yes	iosnoop - trace block I/O events as they occur. Uses Linux ftrace.	
5	io latency	Latency distribution, Block I/O queue time	Yes	iolatency	
6	bitesize	Block I/O size Distribution	Yes	disk/bitesize	
7	syscount	Syscall count by syscall name, specific PID, process name	Yes	syscount - count system calls. Uses Linux perf_events.	

8	uiuc-Recorder	I/O function calls	Yes	uiuc-hpc/Recorder: Lightweight multi-level I/O tracing library	
9	iotop	DiskRead, DiskWrite, SwapIn	Yes	Monitor Disk I/O with iotop in Linux – Linux Hint	
10	iostat	kB_read/s, kB_wrt/s, kB rsize, kB wsize, Sector_W/s, Sector_R/s, AVG_RQ_SZ Await_Time, Transfers_s, CPU_T/io-rq	Yes	iostat(1) - Linux man page Linux iostat command help and examples	
11	hpcmd	Metrics from top, ps and perf	Yes	mpcdf / hpcmd · GitLab	
12	fio	-	Yes	caius/fio: Mirror of git://brick.kernel.dk/data/git/fio.git	It's a benchmark utility
13	smartctl	Test status, Lifetime, Drive health status	Yes	smartmon	It checks the S.M.A.R.T status of the storage devices