Governance for PMDK (Open Source Project)

Intel, a primary author of the PMDK project, proposes this governance model to our partners to share ownership of the project, allowing them and the community to extend their influence on further project development.

All joining stakeholders are free to choose their level of engagement, to what extent they want to devote their time (e.g.: participate in all or only selected projects), and money (e.g.: make their own decision to sponsor part of the CI/CD infrastructure).

Partners, Governance model

Intel would like to propose "Delegated Governance" model to create a structure where the governance is delegated to the council consisting of independent partners that have agreed to the charter they work within. Intel would like to establish clear rules allowing for independent and transparent operation.

PMDK Governance Board

PMDK Governance Board is the main body that is ultimately responsible for managing the project and interacting with other entities. It consists of representatives from companies as well as most active community members who are welcome to join.

PMDK Governance Board Charter

- Consists of a minimum of 3 members, one representative from each company
- Each member declares long-term (min. 2 years) involvement in the project
- Membership should be public and published on the PMDK landing page
- Membership should be open to any active open-source community member
- All members of the board are equal; however, Governance Board can offer a Chair position to one of its members
- Members will always attempt to reach a complete consensus. If it is not possible, a majority vote is required. Decisions causing financial obligations must always be agreed upon with impacted stakeholders.
- Board meets a minimum of once a quarter (everyone can join, right time/OS/tools chosen, publish minutes)

Governance Board roles and responsibilities

- Makes transparent project governance decisions and implements changes
- Maintains a high-level direction/roadmap published on chosen PMDK communication channel
- Creates and enforces Community standards and Code of Conduct
- Forms Technical Steering Committee and decides appeals from it
    - Manages the membership of the PMDK Technical Steering Committee and appoints its Chair
- Manages communication-related to PMDK (through PMDK communication channels – see below)
- Maintains website (contains the charter/R&R, overview, scheduled meetings and past minutes, decision log, and editable agenda that each member can modify/add topics)
- Appoints a Chair (the person who runs the meetings) – this may be a rotating role
- Accepts new board members (both interested companies' representatives and most active community members)
- Opens that should be closed during initial Governance Boards sessions:
    - How should companies handle shared infrastructure/costs (if any)?
    - What are the rules for accepting new members?

PMDK Technical Steering Committee (TSC)

PMDK Technical Steering Committee Charter

- Responsible for architecting and curating the code base
- Consists of minimum 3 members, where each company must assign a minimum of 1 developer

- PMDK Governance Board invite to TSC active community members, who demonstrated long-term personal involvement and contributions
- Makes decisions in the spirit of collaboration and always attempts to reach a consensus. If consensus is not possible, a majority vote is required
  - Each board member can either vote yes (+1), no (-1), or abstain (0).
  - No (-1) vote must include thorough reasoning and, if possible, an alternative proposal that the member is willing and able to implement (where appropriate)
- Representatives are Optional attendees of the Governance Board meetings
  - Open: may have voting rights, maybe only Chair?

Technical Steering Committee Role and responsibilities

- Appoints a Chair (the person who runs the meetings) – this may be a rotating role
- Manages the code and documentation
- Manages new releases
- Maintains a high-level technical direction and feature roadmap
- Provides a fast response, including fixes/patches, to address security vulnerabilities and other major issues
- Addresses Security issues (especially with a major CVE identified) with the highest priority and authority to fast-track
- Accepts contributions (Pull Requests)
- Meets regularly (weekly or bi-weekly), posts minutes on select comms channel
- On first sessions will close several items related to
  - CI/CD framework and other tools (including reference test/validation setups).
  - If publicly available CI (i.e. Jenkins) is needed
  - Release cadence and scope + process of public release (R&R)
  - Bugs triage (AKA bug scrub)
  - Other architectural and technical decisions
  - The procedure of selection core developers (people with write access)
  - Collaboration rules in this group including, rules for review, PR merging, and validation

PMDK Governance Scope:

The Following table summarizes libraries/repositories being a subject of the co-maintenance/governance

- Dark green – project documentation, foundational libraries, and tools needed for validation/development and support.
- Light green – libraries that have direct customer or community project impact (and interest) and depend on the foundational libraries/tools

Project	URL	Comments
pmem.io	https://github.com/pmem/pmem.github.io	PMDK landing page
docs.pmem.io	https://github.com/pmem/docs	PMDK documentation
Libpmem Libpmem2	https://github.com/pmem/pmdk	Libpmem, using libpmem2, provides foundational capability and primitives used by the rest of SW libraries being part of PMDK project. Libpmem2 shares codebase with libpmem. In 2021 the new version "2" was created to improve API.
libpmempool pmempool	https://github.com/pmem/pmdk	Part of core Dev/Val infrastructure: CLI utility to manage pools of memory. Must be maintained to debug issues with PMDK libraries.
valgrind pmemcheck	https://github.com/pmem/valgrind	Part of core Dev/Val infrastructure: tool that emulates x86 and provides ability to reorder and create media layout.
pmdk-convert	https://github.com/pmem/pmdk-convert	Utility to convert different layouts. No recent activity.
pmreorder	https://github.com/pmem/pmdk	Part of core Dev/Val infrastructure: CLI utility (Python script) – interprets pmemcheck and provides results. No updates needed.
Libpmemstream	https://github.com/pmem/pmdk	Working with eBay. Abstraction for Write-Ahead Logs. Makes sense for DSA and io_uring. This is not stable API (iterating with eBay). This would require significant amount of work to make it production ready.
Librpma	https://github.com/pmem/rpma	1.0 released with all features requested by DellEMC. Fujitsu is using and contributing to it.
Libpmemobj	https://github.com/pmem/pmdk	DB that allows accessing PMem. DAOS and CEPH open source projects depend on this library.

PMDK Communication Channels

- Github Issues: https://github.com/pmem/pmdk (+ issues in other supported repositories)
    - Main announcement + discussion + issues reporting channel
    - Also meeting minutes, agendas, roadmap, etc. (either github-wiki, or follow model of OneAPI)
- Slack channel (consider sunsetting and move to Github issues): https://pmem-io.slack.com/join/shared_invite/enQtNzU4MzQ2Mzk3MDQwLWQ1YThmODVmMGFkZWI0YTdhODg4ODVhODdhYjg3NmE4N2ViZGI5NTRmZTBiNDYyOGJjYTIyNmZjYzQxODcwNDg#/shared-invite/email

Official landing pages (pmem.io & IDZ on intel.com)

pmem.io
- Content owner: PMDK team (Piotr Balcer, Lukasz Dorau)
- A lot of content is far beyond Optane so should stay a landing page for PMDK project

docs.pmem.io
- Originally created and maintained by Steve Scargall
- The content available on Gitbooks platform is still valid and needs to be maintained through CXL
- There are multiple ISV and OEM docs that refer and link to docs.pmem.io

Intel Developer Zone on intel.com
- Link: https://www.intel.com/content/www/us/en/developer/topic-technology/persistent-memory/overview.html
- Will leave as is (Intel has active products for several more years)