Project Springfield:

Unified Filesystem Management API

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Coherent set of APIs for Storage Management and Monitoring

- Target: Storage Management Application Developers
- Easy to Use: Basic setups with defaults
- Flexible: Language agnostic access
- Aware: Aware of changes made by other tools
- Scalable: Limits TBD, but must handle enterprise
- Best Practices: Adhere to best practices by default
- Powerful: High-level functions to simplify management

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Proposed Interactions

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Most painful issues right now

- Many current filesystem interactions via screen-scraping of CLI tools
- Fragile moving targets
- Blackmagic Regexes, different for every tool
- Very few structured or programmatic interfaces

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Wish list for filesystem tools

- A universal, machine-friendly format
- Easy to use in 3rd party tools and scripts
- Extensible, future compatible
- Common semantics over varied filesystems

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Proposed solution for the issues…

- Rationalize output to a single place in code
- Retain current output formats as default
- Also provide standardized JSON output
- Possible use for structured input

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… And its rationalization

- LVM already walks the path with JSON
- As small changes to the existing tools as possible
- Possible code reuse of output engine
- Not just for Springfield, benefits all tool writers

Feedback Needed!

Thank You