Node View Access API version 2.0

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NVA-API Overview (1)

- New NVA-API is based on version 1.0 – extension and minor changes of the API core,

- Adapted to new futures of the Pan language,

- Some features depend on LLD-XML and CCM,

INTACT, ADDED, MODIFIED, REMOVED

NVA-API Overview (2)

- The core API:
  - Configuration, locking and notifications handling (`CacheManager, Configuration`),
  - Path manipulation (`Path`),
  - Data querying (`Element, Property, Resource, List, NList`),
  - Metadata querying (`Metadata`).
- API extension to facilitate the usage of API (extend: `Configuration, Element, Path`).

Property Interface (1)

- Property interface (reflects Pan data types)
  - **string getStringValue()**
  - **boolean getBooleanValue()**
  - **long getLongValue()**
  - **double getDoubleValue()**

string can hold arbitrary data (like in Perl, and Java **String**, not just **char***)

(**int getIntValue()** and **float getFloatValue()** removed)

Property Interface (2)

- **BLOBBuffer** interface disappears,
- redefinition of types:

remote BLOB	YES (ref. by URL)	NO (in the profile)
YES `(open,get,close)`	`stream`	`embed`
NO `(getStringValue)`	`fetch`	`string`

Property Interface (3)

- **`link`** is dereferenced automatically by the API, and visible as element that it points to (however we may add a call to get the link path)

Resource Interface

- Every resource may be still queried for children in the iterator-like (old) way:
  - **boolean hasNextElement()**
  - **Element getNextElement()**
  - **Element currentElement()**
  - **ElementName currentElementName()**
  - **void reset()**

List, Nlist Interfaces

- Two additional interfaces:
  - **List** – Pan's **list** type, list in a given language of implementation, in Perl - list, in Java - **java.util.List**,
  - **NList** – the **nlist** type, Perl – hash, Java – **java.util.Map**,
- distinction on **nlist** into **table** and **record** not made (stub generation required, C/C++ **struct** or Java classes out of the HLD Schema).

Metadata Interface

- Metadata interface contains:
  - **Type getType()**
  - **MD5Digest getMD5Digest()**
  - **Derivation getDerivation()**
  - **ACL getACL()(?)**
- removed:
  - **Encoding getEncoding()**
  - **Issue getIssue()**
  - **TimeStamp getTimeStamp()**

Summary

- New NVA API is an extension of the version 1.0,

- It reflects the features of Pan,

- It depends on the "CCM: to be or not to be" question and on the LLD-XML (Node View Profile) Specification.