

XBUP Project - Introduction

Overview of the eXtensible Binary Universal Protocol project including:

- ◆ Goals
- ◆ Basic Ideas
- ◆ Current State
- ◆ Implementation

Goals

XBUP project aims to design and to provide open-source support for extensible binary universal protocol with the following characteristics:

- Minimalistic binary block tree structure with unified approach for any type of data
- Strongly typed data and meta-data definitions based on transformations
- Operating system independent service for data processing and compatibility issues solving

Why Binary?

- Language Independent
- Processing Efficient
- Effective Storage Utilization

For more reasons see XML Characterization Use Cases:

<http://www.w3.org/TR/xbc-use-cases/>

Basic Ideas

- Unlimited Numeric Binary Encoding
- Unified Block-Tree Structure
- Multilevel Architecture
- Specification Catalog
- Hierarchical Types
- Transformations
- Data Meaning Declarations

Current State

Project is currently in early development stage experimentally designed only up to level 1.

- Level 0: Numeric encoding and block-tree structure
- Level 1: Type system and basic blocks
- Level 2: Transformations
- Level 3 and higher levels: Definition of the data meaning and more

Implementation

Prototype implementation in Java includes:

- Parser (Object Model, Pull, Event)
- Streaming and Serialization
- Catalog
- Basic Editor
- System Service
- Sample Applications

Conclusion

Thank you for your time.

For more information you can:

- Visit project's web page: <http://xbup.org>
- Watch more presentation videos

We welcome any contributions.