Library Working Group

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Overview

☐ What the group is working on
☐ Open Issues from last time
☐ Progress since last meeting (summary)
☐ Presentations
☐ Recommended Actions & Work Plan
What the Group is Working On

- Producing documents to serve as proposals to X3J16
- Goal: at least as complete as Template and Exception proposals
- Current focus:

  18.1 Language Support
  18.2 Input/Output
  18.3 ANSI C
  18.4 String

... the universe of reusable components

- Timeline:
  "final draft"
  Proposal for vote
Open Issues From Last Time

- Language Support
  - Predefined Exceptions

- Input/Output
  - International Character Handling
  - Error handling

- ANSI C Library
  - Reference/Include C standard
  - Mixed C/C++ Interactions:
    - streams & stdio
    - new/delete & malloc/free/realloc
    - exceptions & signals

- String
  - Exception specifications
  - Substrings and temporaries

- Other
  - International character handling
  - Naming:
    - header “file” names
    - class names (vs. nested classes)
    - use of typedefs

Description of Library “conformance”
Progress Since the Last Meeting

- Documents
  
  *Language Support revised (after mailing)*
  *Standard Exceptions proposed (91-0116)*
  *Input/output revised (91-0117)*
  *ANSI C issues summarized (91-0105)*
  *String proposal revised (91-0078)*
  *Review of Library submissions (91-0111)*

- e-mail
  
  **Standard exceptions:**
  
  - Common base class xmsg
  - To define "undefined" behavior (e.g. operator new)
  - To report assertion violations
  - From Jerry Schwarz
  - Comments from Doug Lea and Jon Shapiro

  **Strings:**
  
  - Comments on constructing, assigning, and appending
  - From Uwe Steinmueller, Siemens-Nixdorf
  - No comments

  **Container classes proposed:**
  
  - "A Smalltalk-like type hierarchy"
  - From Uwe Steinmueller and Alexander Zitzwitz, Siemens-Nixdorf
  - Comment by James Coggins, UNC Chapel Hill
Presentations

- Strings  
  Aron Insinga  
  Technical Session Tuesday evening
Recommended Actions

- Comment on evolving proposals
- Join in discussions ("live" & e-mail)
- Trial implementations (to "standardize existing practice")

Work Plan

- Decide error/exception approach
- Proposal for 18.1, Language Support
- Proposal for 18.2, Input/Output
- Define C/C++ library interaction
- Proposal for 18.3, ANSI C Library
- Proposal for 18.4, String classes
- Start on Rationale sections
- Decide container classes approach