

Future Directions for SC22

Ad hoc session

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Jeju-Si, South Korea

Charge to the Ad Hoc

choose some means for moving on to 'the next generation'.

Protocol for the Discussion

1. Review topics;
2. Select a few promising ones;
3. Discuss these individually at greater length.
4. Summarize the discussions.

Topics

- Language Independent standards;
 - Interlanguage Communication,
 - High Integrity applications
- New functionality; e.g. to simplify parallel processing, high-performance computing, distributed data, or distributed processing.
- New Languages?
- Uniformity of interfaces to device drivers;
Platform Independence;

Uniformity of IO

- Plug and Play
- User space accessibility of devices
- File/Device interface modules

New Languages

- Existing Languages – Haskell, Mercury, ML.
- Meta languages for data specification.
- Languages for Pattern implementation

High Integrity Applications

- A guide to selecting a programming language suitable to a high-integrity application
- A comparison of programming language characteristics suitable to high-integrity usage
- Standards for meta-language constructions e.g. assertions and other mechanisms for demonstrating correctness in a manner that is uniform or comparable across programming languages
- Standards for subsets, profiles, or dialects of programming languages suitable for high integrity application
- Guides for usage of programming languages in a manner suitable for high integrity application

Interlanguage Communication

- IDL
- ASN
- CORBA
- .NET
- Bonobo
- Ad hoc solutions
- A guide for ILC?