C++ ABI Summary

Revised 2 June 1999

Meetings

When		Where	Phone	Reservation	Passcode
20 June	11:00-13:00	SGI B20: Sapphire	916-356-9200	7-33255	773-9583

Participants

Company	Name	Telephone	Fax	Email
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Agenda: 20 June 1999

- Introductions
- Objectives
  - Interoperable C++ compilation on IA-64:
    - Data representation
    - Object file representation
    - Library API
- Procedure
  - Meetings
  - Intel NDA
  - Communication
  - Available documents
  - Intellectual property
- Issue Identification
  - Classification
  - New issues
- Object Layout (Matt Austern)

Issue Status

In the following table, the *class* column attempts to classify the issue on the basis of what it likely affects. The identifiers used are:

call

> Function call interface, i.e. call linkage

data

> Data layout

lif

> Library interface, i.e. API

g

> Potential gABI impact

ps

> Potential psABI impact

tools

> May affect how program construction tools interact

#	Issue	Class	Status	Source	Opened	Closed
A	**Object Layout**					
A-1	Virtual function table	data	open	SGI	990520	
A-2	Virtual base classes	data	open	SGI	990520	
A-3	Multiple inheritance	data	open	SGI	990520	
A-4	Empty base classes	data	open	SGI	990520	
A-5	Empty parameters	data	open	SGI	990520	
A-6	RTTI (`type_info`) .o representation	data call ps	open	SGI	990520	
B	**Virtual Function Handling**					
B-1	Adjustment of "this" pointer	data call	open	SGI	990520	
B-2	Covariant return types	call	open	SGI	990520	
C	**Global Object Construction/Destruction**					
C-1	Interaction with .init/.fini	lif ps	open	SGI	990520	
D	**Exception Handling**					
D-1	Unwind descriptors: language-specific format	lif ps	open	SGI	990520	
D-2	Unwind personality routines	lif ps	open	SGI	990520	
D-3	Unwind process clarification	lif ps	open	SGI	990520	
D-4	Unwind routines nested?	lif ps	open	SGI	990520	

E	Template Instantiation Model					
E-1	When does instantiation occur?	tools	open	SGI	990520	
E-2	Separate compilation	tools	open	SGI	990520	

F	Name Mangling					
F-1	Mangling convention	call	open	SGI	990520	
F-2	Mangled name size	call g	open	SGI	990520	
F-3	Distinguish template instantiation and specialization	call g	open	SGI	990520	

Please send corrections to [Jim Dehnert](#).