

Geant4 Collaboration Collaboration Agreement

22nd September, 2005

(The following text is that approved by a vote of the Geant4 Members in June/July 2005, with the addition of a signature block and a page header and footer)

1. Introduction

Geant4 is a software toolkit for the simulation of particle transport and particle interactions with matter and fields in arbitrary geometries. The development of the toolkit was proposed in 1994 and was approved as CERN Detector Research and Development project RD44 involving scientists and software specialists from Europe, Japan and North America. At the end of 1998, RD44 was completed and a Memorandum of Understanding was signed by most Geant4 Collaborators as a framework for continued R&D, development and support of the toolkit.

Geant4 has been designed for the needs of modern high energy physics (HEP) experiments, though there is a substantial overlap between the needs for simulation toolkits in HEP, nuclear physics, space science and engineering, astrophysics, medical physics and other fields. The scope of applications and the current collaboration agreement of Geant4 includes HEP and these other fields.

The Geant4 Collaboration consists of the individuals who perform the scientific and technical development and maintenance of the Geant4 toolkit.

2. Purpose of this Agreement

This Agreement provides a framework for the Geant4 Collaboration and formalizes the Collaboration's goals to develop and maintain the Geant4 software, and promote and support its use.

This Agreement of the signing parties (defined below) formalizes the mission of the collaboration, its membership and structure, the relationship with users, the commitment of resources, the review mechanisms and the process of renewal of this agreement.

This Agreement describes the broad structure and mode of operation of the Geant4 Collaboration. Operational procedures are described in the Geant4 Collaboration Regulations (Annex 2 of this document).

This Agreement describes the good-faith intentions of the signing parties. It has no force in law (see also section 9).

3. Membership in the Geant4 Collaboration

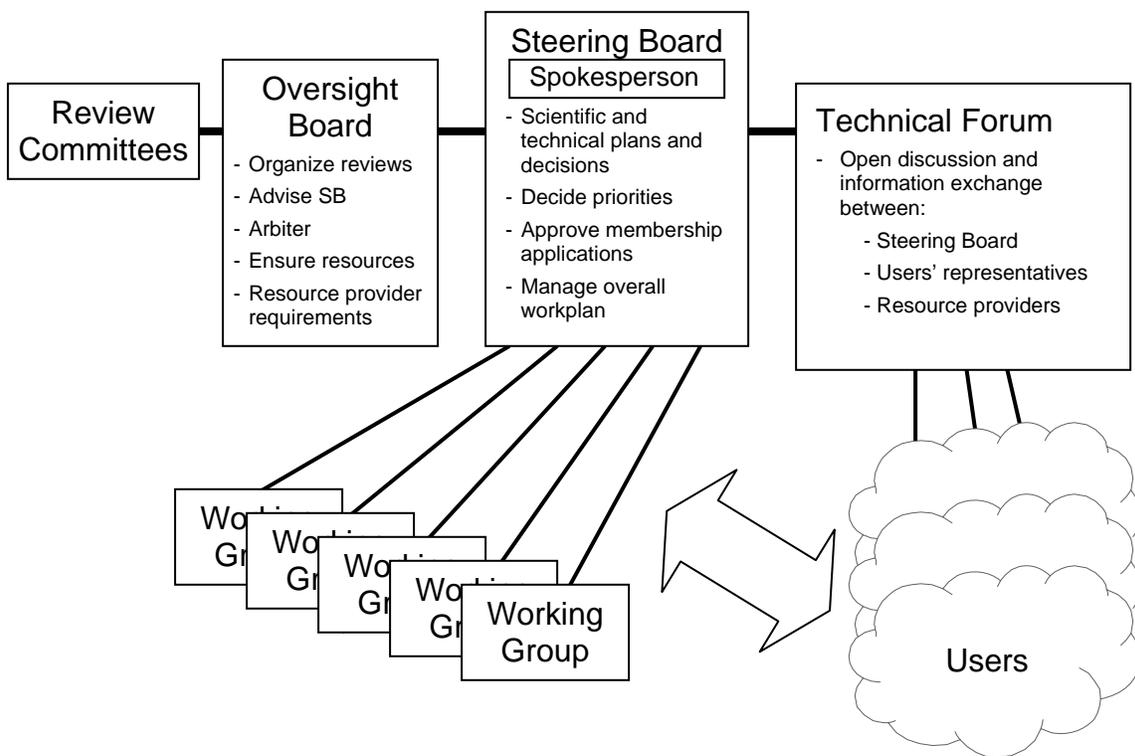
The members of the Collaboration are the individuals who perform the scientific and technical development and maintenance of the Geant4 toolkit. Membership is renewed annually by individuals confirming their continued membership and their agreement to the current Collaboration Regulations.

The signing parties of the Collaboration Agreement represent groups of members at an institution or group of institutions. The signing parties are responsible for the contribution of resources. An individual collaborator with authority to represent her/himself can be a signing party.

The Geant4 Collaboration is open to new membership. Applications will be evaluated by the Steering Board in consultation with the Oversight Board (see the Regulations).

4. Structure of the Geant4 Collaboration

The structure of the Collaboration is outlined in the diagram below.



4.1. Oversight Board

Responsibilities

- Monitor the overall activity of the Geant4 collaboration and advise the Steering Board;
- Monitor the level of resources contributed by each group of members represented by a signing party. When necessary take steps to ensure that committed resources are available and adequate to meet the needs of the Collaboration;
- Organize appropriate reviews to assist in the above processes;

- Make recommendations on the admission of new members requiring new signing parties (as detailed in the Regulations).
- Approve amendments to the Collaboration Agreement proposed by the Steering Board. (Changes to the Regulations are treated below);
- At the request of the Steering Board, act as final arbiter to resolve issues that may arise.

Composition

The Oversight Board is composed of representatives of the signing parties or groups of signing parties committing more than the minimum threshold, specified in the Regulations, of resources into the Collaboration.

Those signing parties contributing above the threshold are directly entitled to a representation in the Oversight Board. Signing parties contributing resources below the threshold can choose to form groups for joint representation in the Oversight Board.

The Spokesperson, the Deputy Spokesperson and the chair of the Technical Forum are *ex-officio* members of the Oversight Board.

The Oversight Board appoints its chairperson and its deputy chairperson for a fixed renewable term as specified in the Regulations.

4.2. Steering Board

The Steering Board governs the Collaboration as the representative of its members, except for those cases in which members vote directly.

Responsibilities

The Steering Board is responsible for the scientific and technical goals of the Geant4 Collaboration, and to plan and manage the work required to reach these goals.

The Steering Board is responsible for:

- coordinating the Geant4 development, maintenance and user support.
- setting priorities. In setting priorities the Steering Board will make maximal use of any consensus on priorities reached by the Technical Forum.
- deciding about the admission of new members to the Collaboration. In the case of new members that require new signing parties, a recommendation should be sought from the Oversight Board, according to the procedure specified in the Regulations, before the Steering Board makes its decision.
- amending the Collaboration Agreement, subject to subsequent approval of the Oversight Board.

- amending the regulations governing the Collaboration activities by following the procedure in Section 8.
- setting up and revising the structure (working groups, task forces etc.) to accomplish these tasks.

Composition

The Steering Board consists of:

- Representatives of the scientific and technical areas of activity (Working Groups) within the Collaboration. The representatives are chosen, by Collaboration members whose principal Geant4 activity is in the Working Group. Each Working Group chooses representatives in proportion to its membership, subject to a minimum of one member per group. The terms and procedures for choosing representatives are defined in the Regulations.
- the spokesperson and deputy spokesperson (see below).

The chair of the Technical Forum is an *ex-officio* member of the Steering Board.

The chair of the Oversight Board has a standing invitation to attend meetings of the Steering Board.

4.3. Working Groups

Each working group is responsible for particular scientific, technical and operational aspects of the work of the Collaboration. Working Group coordinators are proposed by the working group and approved by the Steering Board according to the procedures in the Regulations.

4.4. Spokesperson

The Steering Board is responsible for nominating candidates for Spokesperson.

The Collaboration membership elects the spokesperson, by a simple majority of votes cast. The spokesperson becomes chair of the Steering Board and chooses a deputy spokesperson, who becomes deputy chair of the Steering Board.

The Spokesperson serves for a fixed renewable term as specified in the Regulations.

4.5. Technical Forum

The role of the Technical Forum is to provide a forum for discussion between the user community and the Geant4 Collaboration. The Technical Forum is organized by the Geant4 Collaboration through the Steering Board.

Role

Provide a forum for discussing:

- major user and developer requirements and priorities,

- software implementation issues
- physics validation issues
- user support issues

Composition

The Technical Forum is open to all interested parties and is expected to consist of at a minimum:

- the members of the Steering Board
- representatives of major experiments and user communities using Geant4

The Steering Board appoints the chair of the Technical Forum for a fixed renewable term specified in the Regulations.

5. Geant4 User Support

Geant4 user support is expected to be provided by a combination of resources from the Geant4 Collaboration and Geant4 user communities.

The Steering Board may appoint a Geant4 member to act as Liaison for a user community. A Liaison interacts closely with the associated users to facilitate the communication with the Geant4 Collaboration.

The collaboration acknowledges and encourages user communities and experiments to nominate a contact person. The Geant4 collaboration will make every effort to channel communication through him/her and provide a Geant4 liaison officer.

6. Commitments of signing parties

The signing parties commit resources in the form of expertise, manpower or money to the activities of the Geant4 Collaboration.

The commitments of signing parties are listed in the Resources Annex, which is updated annually by the Steering Board. Signing parties undertake to inform promptly the Steering Board of any changes in their commitments.

7. Geant4 License and Intellectual Property

The signing parties will be expected to cause a separate document detailing the Collaboration's policy on intellectual property and licensing, to be signed by the copyright holder(s) corresponding to the members they represent.

8. Collaboration Regulations

The Regulations (Annex 2) are reviewed annually by the Steering Board in consultation with the Oversight Board. Changes may be proposed at any time and must be approved by a simple majority of votes cast by the current membership.

9. Cross Waiver of Liability and no Partnership or Agency

9.1. Cross Waiver of Liability

With regard to activities undertaken pursuant to this Collaboration Agreement, neither signing party nor member shall make any claim against any of the other, employees of the other, the other's related entities (e.g., contractors, subcontractors, investigators or their contractors or subcontractor), of employees of the other's related entities for any injury to, or death of, its own employees or employees of its related entities, or for damage to, or loss of, its own property or that of its related entities, whether such injury, death, damage or loss arises through negligence or otherwise.

9.2. No Partnership or Agency

This Collaboration Agreement is not intended to and nothing in this Collaboration Agreement shall be deemed to constitute, create, give effect to, or otherwise recognize such creation of a joint venture, agency, partnership, interest grouping or any other kind of formal business grouping or entity between the signing parties or the members.

10. Approval of the Collaboration Agreement

This Collaboration Agreement must be approved by a simple majority of votes cast by the current membership.

11. Effective date of the Collaboration Agreement and Transition Process

The criteria for deciding when this agreement becomes effective, and the process for transition from the pre-existing organizational structures is described in Annex 1.

12. Duration, renewal and amendment of this agreement

The agreement is tacitly renewed every **three** years.

Amendments to the Collaboration Agreement are the responsibility of the Steering Board and must be approved by the Oversight Board.

Signature Block

Signature:

Name of Signing Party:

On behalf of:

Date:
