

amira™

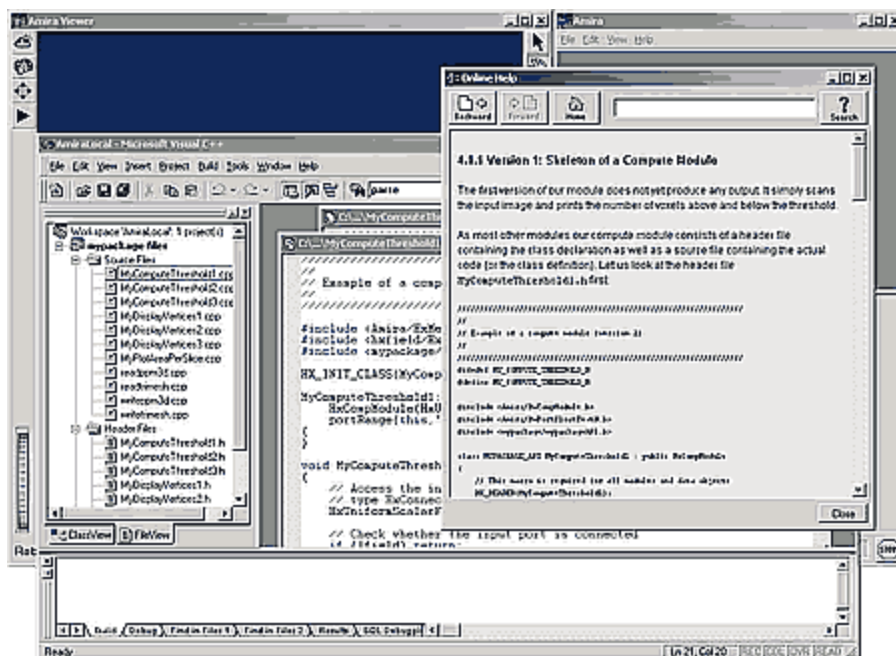


Amira developer edition v3.0

The **Amira Developer Edition, AmiraDev**, allows users to extend the functionality of Amira Standard Edition to meet their custom requirements - such as specific graphic representations, new readers/writers, or new computational algorithms. The custom extensions can be utilized by users of the Amira Standard Edition without any programming knowledge. AmiraDev allows scientists and researchers to customize the visualization and data analysis tasks to meet needs of specific projects. The availability of an already extensive functionality as well as the ease of developing extensions saves much time in the completion of visualization tasks.

From now, people working in medical imaging, biology, confocal microscopy, 3D geometry reconstruction, engineering, CFD, FEM, geosciences ... can develop custom extensions for the Amira visualization system. AmiraDev allows the user to add new components like file read or write routines, modules for visualizing data or modules for processing data. New modules and new data classes can be defined as subclasses of existing ones.

In addition to the files contained in the Standard Edition, AmiraDev essentially provides all C++ header files needed to compile custom extensions, and can be seen as a superset of the Standard Edition. In order to be able to develop custom extensions AmiraDev users need a C++ development environment like Microsoft© Visual Studio on Windows or a C++ compiler on Unix.



The most complete 3D visualization workshop of the market

Based on a number of industry standard libraries (Open Inventor™, OpenGL®, Qt™, Tcl...), AmiraDev is delivered with TGS OpenInventor and 3D MasterSuite graphic toolkits (SDK version). The unique object-oriented interface provides maximum flexibility. It makes it as easy as never before to add custom I/O-routines, compute and visualization modules. Writing new visualization modules for AmiraDev essentially means creating an OpenInventor scene from the input data. If you already have code doing this it will be straight forward to turn it into an Amira module. OpenInventor is a C++ library using OpenGL which provides an object oriented scene description layer. TGS 3D MasterSuite library is a complete C++ developer suite for creating enhanced 2/3D representations and charting. These libraries can be only used in the AmiraDev framework. Qt is a platform independent C++ library for building graphical user interfaces (GUIs). Amira is built with Qt. However, the user interface elements used in standard Amira modules are encapsulated by special Amira classes called ports. Therefore you can develop your own modules without knowing Qt and without having the Qt development library installed (Qt headers are not included in the Amira Developer Edition).

Integrated wizard for rapid creation of custom modules

In order to simplify the creation of new custom extensions, AmiraDev provides a development wizard. This wizard is a special tool which helps the user to set up a local Amira directory tree so that you can write custom extensions for Amira. In addition, the development wizard can be used to create templates of modules or of read/write routines. Amira Developer Edition provides a complete and easy-to read manual that will help users to create new custom extensions.

High-level services for development of custom modules

[Indeed - Visual Concepts](#) and [TGS](#) provide solutions to customers problems through their Consulting Divisions. Technology has a significant place in our approach, but it is just a part of our overall solution. With extensive experience applying our graphics and visualization tools to solve real-world problems, the Consulting Division can develop a specific extensions for you. The Consulting Division provides a variety of services, including training, specific application development, on-site development and general consulting services.