libIntegra a system for software-independent multimedia module description and storage

Jamie Bullock, UCE Birmingham Conservatoire, UK

Henrik Frisk, Lund University, Malmö Academy of Music, Sweden

① Module Host

A module host is any signal or message processing environment capable of communicating with the Integra library. The module host performs DSP and message processing on behalf of the Integra library.

② Instance Host

The instance host maintains a memory-resident representation of module instance state including module connection information.

③ Bridge

The bridge is a small dynamically-loaded library, which enables the Instance Host to communicate with the Module Host

④ Serialization Layer

The serialization layer converts a textual (XML) representation of module definitions and module instance data into a memory-resident represenation that can be used by the Instance Host. It can also convert a memory-resident represenation to a textual one.

⑤ Local XML file hierarchy

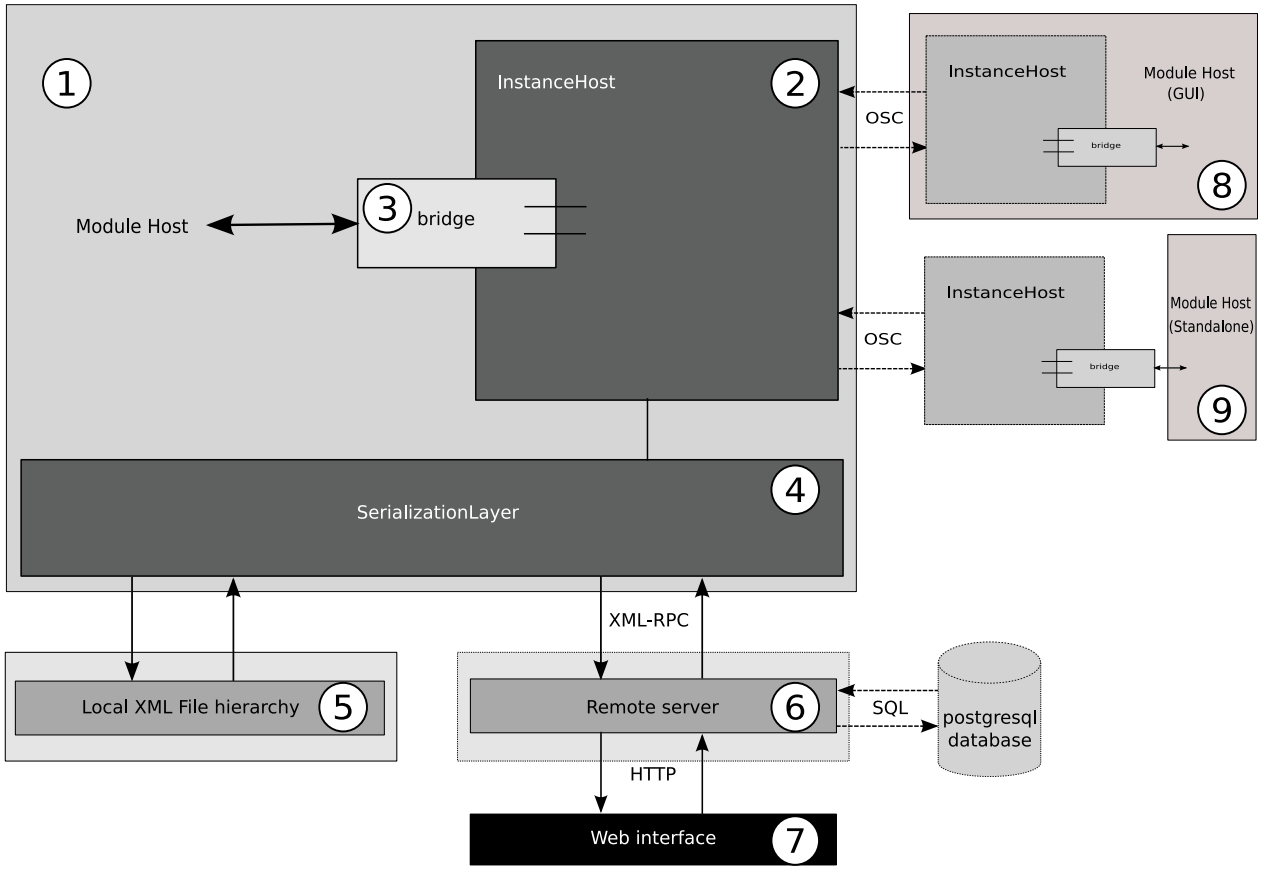
Module definitions and instance data can be stored in a local tree of XML files for offline use

⑥ Remote Server

A remote server is used for storage of module definitions, instance data and other materials related to a particular work.

⑦ Web Interface

A web interface is provided for entering module definitions and browsing/downloading materials for a given work.



⑧ GUI

One possible libintegra configuration is to have one libintegra instance working with a GUI module host, and one libintegra instance working with a DSP module host. The two instances will enable synchronised state saving and managed communication between GUI and DSP.

⑨ Standalone Module Host

The bridge can communicate with the Module Host in the most convenient way. This could be via OSC or unix socket.