

## INTRINSIC ALCHEMY™ 2.5

### Product Overview and Description

Intrinsic Alchemy™ 2.5 frees developers to do the code that matters. It is a high-performance software development platform for delivering real-time 3D applications across multiple systems: video game consoles, personal computers, advanced TV set-top boxes and future generation handheld devices. Intrinsic Alchemy is a program development environment that easily integrates with the developer's own tools and code. It acts as the foundation for the developer's tool chain, with support for leading third-party tools and modules. It provides developers fundamental multi-program interaction, resource management and basic operating system services. It allows powerful scene-level translation and compilation. Intrinsic Alchemy also provides artists with game content design and preview environments. Integrated viewing tools allow artists to see their environments run in real time on the targeted platform, and with that feedback make the necessary changes to the model before it even reaches the programmer. A free trial version of the Alchemy ArtistPack is available for download.

### Support and Service

World-class technical support allows customers around the world and on multiple gaming platforms to depend on Alchemy. Phone, fax, email and web support are

available to meet our customers' needs, including our Developer's Web site, "The Lair," with FAQs and developer and artist forums. Intrinsic Graphics is backed by some of the world's leading gaming and graphics companies including Sony Computer Entertainment Inc. Headquarters are in Mountain View, California, with offices in Europe, Japan and Korea.

### Supported Hardware and Development Environments

- PlayStation®2: GNU C++, Metrowerks CodeWarrior®, SN Systems ProDG™
- GAMECUBE™: Metrowerks CodeWarrior
- Xbox™/PC: Microsoft Visual C++™, .NET
- Linux (development environment only)
- Advanced TV set-top boxes and future-generation handheld devices

### Documentation

- Automated API documentation generated from source
- Documentation in searchable PDF, Microsoft HTML Help and print
- Full user documentation set covering Alchemy components and system features, content path, tools, PlayStation 2 and GAMECUBE
- Integration of shipped sample code within the Getting Started Sample guide

## INTRINSIC ALCHEMY™ 2.5 FEATURES AND BENEFITS

### Plug-in Game Engine Pipeline

- A completely data-driven architecture designed for real-world game development practices
- The Alchemy Insight™ core engine with a plug-in architecture for the easy addition of new features
- The Alchemy Finalizer™ application with Optimizer integration, data debugging and scene analysis, and feature extensibility
- The Alchemy Optimizer™ library with a complete set of default optimizations
- Extensive samples illustrating the new Alchemy plug-in design
- A game pipeline set up for current and next-generation consoles

### High-Performance and Advanced Rendering Techniques

- Hand-tuned microcode for PlayStation® 2
- Flexible Scene Graph enables shader support for complete integration from modeling tool to hardware
- Implementation optimized for each hardware device

### Flexibility and Extensibility

- High Performance Animation System
  - Skin, Skeleton, and Animation definitions
  - Animation: Transitions, Overrides, Multiple Active, Partial
  - Skin: Multiple, Segmented, Run-time Switchable
  - Simple IK Support with capabilities to add custom complex IK
  - Hand tuned on PS2, GAMECUBE, XBOX and PC for 1st party performance
- Cross Platform Shading Support
  - Environment Maps, Multi-texture, Gloss Maps, Bump Maps, and Cartoon Shader
  - Projective Shadows, Self-Shadows, Planar Shadows
  - Build your own per-platform shader that uses the same Alchemy pipeline

### Reflective Object Model

- All Alchemy features developed as a "customer" to the object model
- Creation of custom objects that work as fully integrated and recognizable by all other objects in the Alchemy environment
- Ability to replace Alchemy object implementations with your own
- Fast IGB binary data format with external references and asynchronous streaming for all Alchemy-derived classes
- Alchemy object model updates for future platforms without having to rework custom objects
  - New tools, such as the Alchemy Event Tracker for memory analysis, logging and debugging

### Art Tool Integration

- Max and Maya ArtistPack™
  - Intrinsic Alchemy Viewer™ and Intrinsic Alchemy Optimizer™ integrated with 3ds max™ and Maya®
  - Ability to display artwork on target platform directly from modeling tools
  - Extensions for shader and feature control
    - Fast exporters to export virtually all features
    - Run optimizations (provided or custom) and tools as part of each export
    - Fine-tuned asset types based on platform considerations
  - Debug ALL game data outside of the engine

### Developer Support

- Extensive experience in designing and programming high-end graphics systems for current and future hardware devices
- Experienced Developer Support Engineers to provide email, phone, web and priority support
- Developer's Website: "The Lair" with FAQs, developers and artist forums
- Training and site visits

