



SIF AND SCHOLASTIC: POSITION PAPER

MAY 29, 2007

Scholastic is committed to the School Interoperability Framework.

Recognizing that many school districts are planning or implementing a ZIS, Scholastic is hard at work to meet our customers needs and maintain a leadership role in developing new technology and capabilities.

Scholastic is developing a SIF agent for the SAM family of products, including READ 180, ReadAbout, rSkills, SRI and SRC! Scholastic plans to develop a SIF agent in 2008. The Scholastic SIF agent will be released with formal certification through SIFA and include a SIF Application Conformance Statement. Scholastic is also committed to meeting as many school configurations as possible; the Scholastic SIF agent will be QA tested with major ZIS implementations, including those from Edustructures and CPSI.

For information on inclusion in our pilot program or other information on SIF, please contact Larry Brousseau at lbrousseau@scholastic.com.

For more about the SIF standard see the FAQ below.

- 1. What is SIF ?.....2
- 2. Who is in charge of SIF?.....2
- 3. How does SIF work?.....2
- 4. Is SIF a mature standard? Is it being used by school districts today?3
- 5. Why is Scholastic focused on SIF?.....3
- 6. Are Scholastic applications such as READ 180 SIF-Compliant?.....3
- 7. How is Scholastic creating its SIF agents?.....3
- 8. Which data objects will the Scholastic SIF agent subscribe to? Publish?.....3
- 9. Will your SIF agent replace the need for an aggregation server?4
- 10. What should interested districts do if they want SIF agents?4
- 11. Is there more than one version of SIF?4
- 12. Where can I get more information about SIF?.....4

1. WHAT IS SIF ?

The Schools Interoperability Framework or "SIF" specification is the US national kindergarten through 12th grade (K12) specification for organizing educational data and information in an XML format. It is also a specification for sharing that information between software applications in the educational space.

Together these two aspects of the specification allow interoperability of heterogeneous software applications (that is, applications from different companies, built on different platforms and with different purposes). The specification addresses infrastructure issues (how do systems communicate), data issues (how do you describe the data), and choreography (how does the data move around).

Public school districts in the United States -- and similar organizations in Australia and Europe -- utilize SIF to solve problems of application data isolation:

- redundant data entry
- disconnected applications and resulting increased support costs
- costly and inefficient data reporting
- data inaccessible to decision-makers

2. WHO IS IN CHARGE OF SIF?

The SIF framework is managed by the Schools Interoperability Framework Association (SIFA), a non-profit organization founded in 1997 that brings together vendors, government agencies, state departments of education, and other industry leaders to develop an evolving specification to ensure that preK-12 instructional and administrative software applications can share information seamlessly. SIFA does not produce or sell any products, their mission is to develop an industry-supported technical blueprint that will enable diverse applications to interact and share data.

3. HOW DOES SIF WORK?

SIF includes four elements:

- **Software Application:** a software program implemented within a school or district
- **SIF Data Object:** information shared by software applications (using the rules of the SIF Specification)
- **SIF Agent:** A software program (written by a vendor) that serves as the intermediary between the software application and the SIF Zone
- **ZIS (Zone Integration Server):** A software program that serves as the central communication point in a SIF Zone

When a software application with a SIF Agent sends out a message to the ZIS, the ZIS forwards that information onto the applications that are listening for updates. The information is routed through the application's agent. SIF-certified software applications and agents do not talk to each other directly; each application talks to its agent and the agent in turn talks to the ZIS, which handles all further communication. The ZIS's role as a "third party message handler" means that the SIF framework is easily expandable and very reliable.

A SIF Agent can either publish or subscribe to a data object. For example, your Student Information System (SIS), might act as the provider of the StudentPersonal data object. Whenever there is a change to student information in the SIS, the SIS Agent would publish an event and relay it to the Zone Integration Server. If a Food Service Application subscribes to events for the StudentPersonal data object,



whenever the SIS SIF Agent publishes an event, the Zone Integration Server would relay that event to the Food Service application (and other subscribing applications), enabling the subscriber update.

4. IS SIF A MATURE STANDARD? IS IT BEING USED BY SCHOOL DISTRICTS TODAY?

The SIF framework has been under development for over 10 years. A number of districts have tested SIF implementation but it has not yet achieved widespread acceptance and therefore deployment has been limited. This is changing as states and federal agencies begin to require SIF compliance for receiving funding for reporting required NCLB data.

5. WHY IS SCHOLASTIC FOCUSED ON SIF?

Scholastic has been a member of the SIFA since 2003; it is in everyone's interest that SIF be a success and deployed widely to help districts ensure data is available, organized and seamless throughout a district's infrastructure and applications.

Several Scholastic staff members have a long association with SIFA. Midian Kurland, Scholastic's VP, Technology and Development, consults regularly with the SIFA staff and has worked closely with Jill Abbott, SIFA Learning Strategist, on instructional and assessment issues. He has also contributed to SIFA and IMS efforts to create a more unified interoperability solution for K-12.

6. ARE SCHOLASTIC APPLICATIONS SUCH AS READ 180 SIF-COMPLIANT?

Not at the present time. However, SAM was designed with SIF in mind. All Scholastic applications utilizing the Scholastic Achievement Manager (SAM) have their data stored in SAM's central database. SIF agents, therefore, communicate with SAM and not the individual student applications (*READ 180*, SRI, SRC!, rSkills, ReadAbout). SAM's internal database structure follows the SIF data schema wherever possible. This helps make creating SIF agents a more straightforward process.

The Scholastic SIF agent will be available in 2008, at which time we will provide our SIF Application Conformance Statement.

7. HOW IS SCHOLASTIC CREATING ITS SIF AGENTS?

Scholastic is working in partnership with Edustructures, Inc. (www.edustructures.com) in the creation of its SIF agents. Edustructures is the leading provider of SIF agents, development tools and support services. Scholastic is a licensee of Edustructure's SIFWorks Agent Developer Kit.

8. WHICH DATA OBJECTS WILL THE SCHOLASTIC SIF AGENT SUBSCRIBE TO? PUBLISH?

Our main focus is on creating a subscribing agent to synchronize SAM's student roster with a district's SIS. The data elements Scholastic is considering for this agent include:

- StudentPersonal
- StudentSchoolEnrollment
- StudentSectionEnrollment
- TermInfo
- SchoolInfo
- SchoolCourseInfo
- SectionInfo



This agent will allow specific changes in a student's status in the SIS to be immediately reflected in SAM. In addition to a subscribing agent, Scholastic is considering releasing an agent to publish SRI Lexile scores.

9. WILL SCHOLASTIC'S SIF AGENT REPLACE THE NEED FOR AN AGGREGATION SERVER?

No, it will not. Our agent will focus on synchronizing student roster data with the SIS. We are NOT planning to create a data export agent that would make all 600+ EE data elements available to an external application. Aggregation transfers complete databases from one SAM to another, a process beyond the specification of a SIF agent. With SAM's Aggregation Scheduler, available fourth quarter 2007, districts will be able to rely on the SAM's internal processes to support auto-aggregation.

10. WHAT SHOULD INTERESTED DISTRICTS DO IF THEY WANT SIF AGENTS?

Scholastic is interested in talking to districts about their SIF agent needs, including customized service partnerships or development of additional agents.

11. IS THERE MORE THAN ONE VERSION OF SIF?

Yes, and this is important. SIF is an emerging standard. Official releases have included 1.0, 1.1, 1.5, and the current, Version 2.0. Work is underway on version 2.1. Agents can only interoperate with other agents (and ZISs) conforming to the same version.

12. WHERE CAN I GET MORE INFORMATION ABOUT SIF?

<http://www.sifinfo.org/>

<http://www.edustructures.com>