# Technical Implementation Guide

For use with Student Achievement Manager and
SAM Suite programs version 2.6 and later

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# Table of Contents

# Overview: Your Guide to Technical Implementation

The *Technical Implementation Guide* is designed to guide you in setting up and running your Student Achievement Manager (SAM) installations and SAM-based programs through the school year.

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### SAM Platforms

Student Achievement Manager (SAM)          HMH Leader Central
SAM Central                                HMH Teacher Central ™
Next Generation Dashboards                 HMH Tech Central
HMH Student Central ™

### SAM-Based Programs

*Big Day for PreK*                         *Phonics Inventory*
*Common Core Code X*® Digital*             *READ 180*® Enterprise Edition
*Do The Math*®/ *Progress Space**          *READ 180* Next Generation
*Do The Math Now!/ Progress Space**        *READ 180* Universal*
*English 3D**                              *READ 180* Universal Workshop Assessments*
*Expert 21* (including *xSkills*)*         *Reading Inventory*
*FASTT Math* Enterprise Edition            *Reading Counts!*
*FASTT Math* Next Generation               rSkills College & Career
*Fraction Nation*                          rSkills Tests
*iRead*®*                                  *System 44* Enterprise Edition
*MATH 180*®* (including mSkills)           *System 44* Next Generation
*Math Inventory*

***Programs marked with an asterisk (*) are available only
on servers hosted by HMH.***

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District administrators and technical teams can install SAM to work with the SAM-based programs to manage school rosters, student enrollment and records, as well as to aggregate student data into class, school, and district-wide reports. This requires planning prior to the school year and continued maintenance and monitoring during the school year, leading to a set of end-of-year tasks. This manual will guide you through these stages.

## SAM Installation Components

SAM installations consist of three components: the SAM Server or Servers (either a local server at the district level or hosted at a data center), classroom workstations, and SAM Connect.

Districts using their own servers to connect with student and teacher workstations use a local deployment. Some large districts may divide their database among more than one server; others may use one server per school.

Districts using Hosting Services have their SAM Servers hosted at a data center. This server connects with workstations over a secure Internet connection.

There are different deployment options available, depending on your district's infrastructure and technology capabilities. For more help with choosing the right deployment for your district, see *page 18*.

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### SAM Servers

The SAM Server is a server that houses the SAM software, the district's SAM database, SAM-based programs, and corresponding media. Based on your deployment, the SAM Server connects to workstations over a local area network (LAN) or an SSL Internet connection.

All software and media is installed on the SAM Server. During installation, users receive a URL to access servers from workstations. For more information, see the ***Installation Guides*** for the latest versions of all SAM-based programs on the Product Support website (*page 50*).

For the system requirements for SAM Servers, as well as a full description of the different types of SAM deployments, see the ***SAM Suite System Requirements and Technical Overview*** at the Product Support website (*page 50*).

### Workstations

Workstations are the desktop and laptop computers that students, teachers, and administrators use to access SAM and SAM-based programs. To access the SAM Server and the programs hosted on it, all workstations must have a browser program (Internet Explorer, Mozilla Firefox, or Safari) installed. Districts using Hosting Services must use computers with Internet connections.

For the system requirements for workstations, see the ***SAM Suite System Requirements and Technical Overview*** at the Product Support website (*page 50*).

**iPad**®: *READ 180* Next Generation, *rSkills* Tests Next Generation, *The Reading Inventory*, *Reading Counts!*, *iRead*, *MATH 180*, and SAM Central are all iPad compatible. These SAM-based programs take advantage of iOS technology and should be used to complement desktop and laptop use. See the individual program documentation at the Product Support website (*page 50*) for more information on using these programs on the iPad.

### SAM Connect

SAM Connect is an online service that connects the SAM Server—either locally-hosted or hosted on a data center—to HMH. This connection enables delivery of updates and data transfers between your SAM Servers. SAM Connect also authenticates users and grants access to online products such as SAM Central, the Teacher and Leadership Dashboards in Next Generation programs, the Interactive Teaching System (ITS), and Code X Digital.

SAM Connect is not a required element of SAM; however, SAM Connect registration is required to use the above-named program components, as well as other Web-based programs. SAM Connect is registered during SAM installation (versions 1.9 and higher).

## Aggregation Server

The Aggregation Server is an optional, separate server at the district level that maintains and aggregates student data for district-wide reporting for implementations with multiple SAM databases.

## Using the Student Achievement Manager
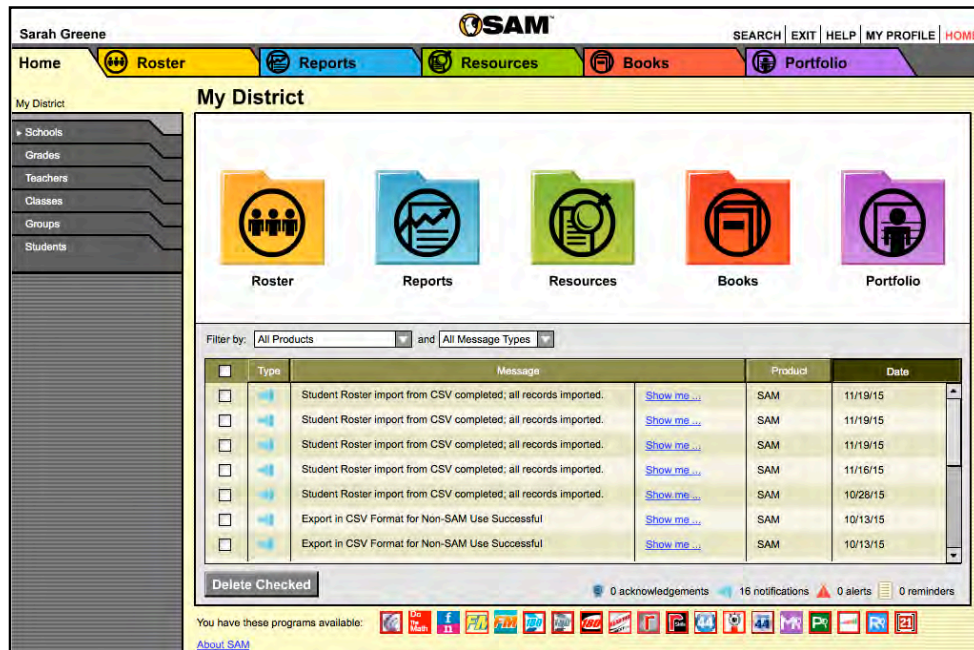


**Figure 1 SAM Home Page**

SAM is the database program and data manager that links all SAM-based programs. Proper set-up and maintenance, including scheduling and performing specific tasks during the school year and at the end of the school year, are vital to keeping up a successful SAM installation. This manual shows you how to do that by:

● Describing the steps to implement and deploy a SAM installation

● Guiding year-round technical procedures

● Referencing best practices to implement and maintain SAM installations

Districts using the Student Digital Portfolio, a feature in *READ 180* Next Generation, *System 44* Next Generation, *iRead*, and *MATH 180*, see an additional SAM tab, the Portfolio tab.



**Figure 2 SAM Tabs**

Only teachers with students enrolled in Next Generation programs as well as *iRead* and *MATH 180* are able to access the functions on the Portfolio tab. For information on using the Portfolio tab, see the *SAM Settings and Reports* manual for that program.

SAM consists of several components, all of which are accessible from the home page:

The SmartBar (*right*) is the quickest way to access rosters and reports for districts, grades, teachers, classes, and students. Single-click an entry in the SmartBar to reveal which programs the district, teacher, class, group, or student is enrolled in, or double-click a SmartBar entry to open the profile for that entry.
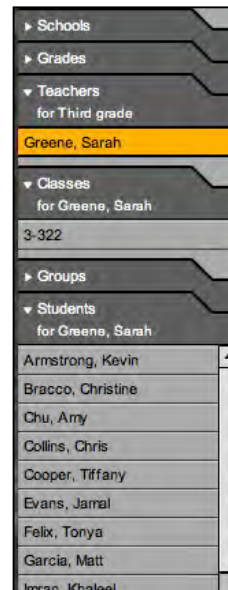
The Home Page Buttons (*below*) access the four main areas of SAM: **Roster**, **Reports**, **Resources**, and **Books**.

- Roster provides detailed information about students, groups, classes, grades, teachers, and schools

- Reports accesses the different reports for each installed program

- Resources displays classroom, student, and professional development resources available in SAM for each installed program

- Books is for use with *Reading Counts!* (RC!). It contains the RC! Quiz Manager and a link to the Book Expert Online.

**Figure 3 SmartBar**

**Figure 4 Home Page Buttons**

The Message Center displays messages generated through SAM, such as alerts and acknowledgments that reflect students' work in the programs and notifications of SAM system activity such as imports, exports, and backups.

**Figure 5 Message Center**

The Quick Links in the top-right corner go directly to the Search, Home Page, Help Page, profile, or to exit SAM.

**Figure 6 Quick Links**

## Using SAM Connect



**Figure 7 SAM Connect Welcome Page**

SAM Connect processes student data and user authorizations that are vital to the functioning of several SAM-based programs. Through SAM Connect:

● Users may access Web-based programs such as SAM Central and Code X Digital as well as Web-based components of SAM-based programs, such as the Teacher and Leadership Dashboards and Interactive Teaching System

● Teacher and Leadership Dashboards in Next Generation programs and SAM Central class screens display accurate data on student usage and performance in the software

● Licenses may be added or converted as districts require by pushing them directly to the SAM Server

● Districts with a Product Maintenance and Support Plan may receive updates to SAM-based programs.

District SAM Servers must be registered with SAM Connect when SAM is installed. Schools in the district must also be verified and matched with schools in the Customer Database through SAM Connect (*page 30*) in order for SAM Connect to correctly process and display student data, manage licenses, and monitor servers.

Registered SAM Servers check in with SAM Connect every 25 minutes to collect and update licensing data and check username and passwords for authentication. For more information on setting up and matching SAM Servers to SAM Connect, see the *SAM Connect User's Guide* at the Product Support website.

SAM Connect updates student data on the Teacher and Leadership Dashboards in Next Generation programs once a week. Data in SAM Central is updated in real time (aggregated data is updated nightly). Student data from unmatched servers will not be updated, and will therefore result in incomplete Dashboard data and inconsistent eReads access.

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### The Authentication Dashboard
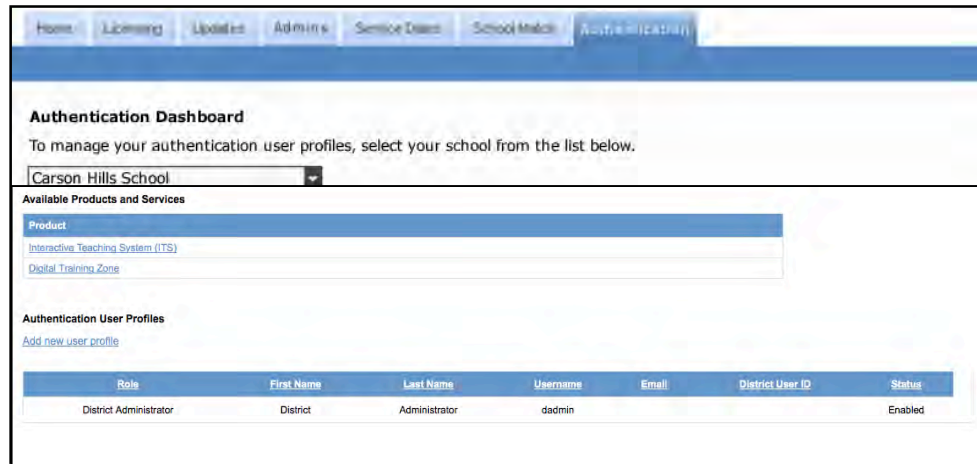


**Figure 8 Authentication Dashboard**

The Authentication Dashboard allows SAM Connect administrators to view access to the district's Web-based programs and services (including SAM Central, the Teacher and Leadership Dashboards in Next Generation programs, *iRead, MATH 180, Expert 21*, *Do The Math,* Code X Digital, the Interactive Teaching System, and others). See the ***SAM Connect User's Guide*** at the Product Support website for more information on using the Authentication Dashboard.

## Product Support Website
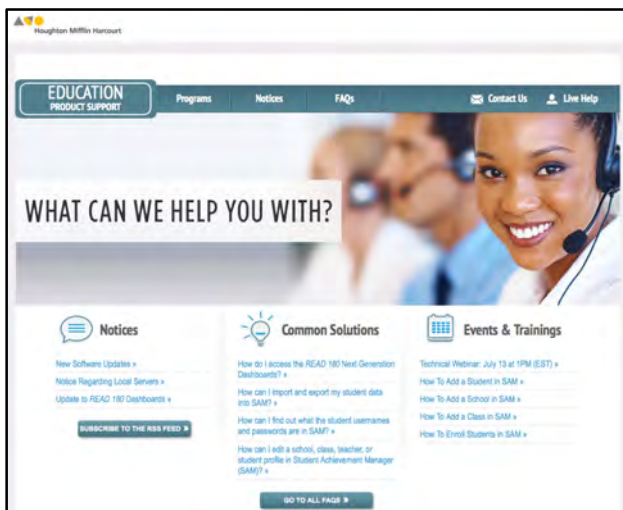


**Figure 9 Product Support Website**

The Product Support website (hmhco.com/productsupport) is your source for all product information, updates, software manuals, and guides. **All the manuals mentioned in this guide are available for download as PDFs from the website.**

### Using the Website

The website home page is organized by program. Scroll over the **Programs** tab to view the program menu. Click the program name to go to the product support area for that program.
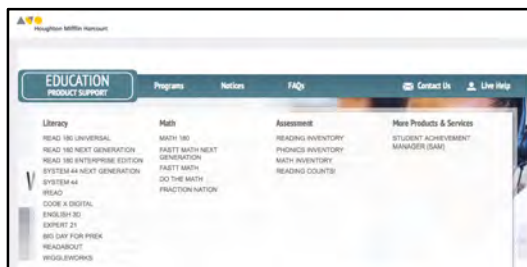


**Figure 10 Program Menu on Product Support Website**

On the home page you will also find product bulletins and announcements. Click the link to view the announcement.



**Tech Tip**
**Be sure to check the Product Support website regularly for updated software and documentation.**

## Software Manuals, Guides, and Product Information
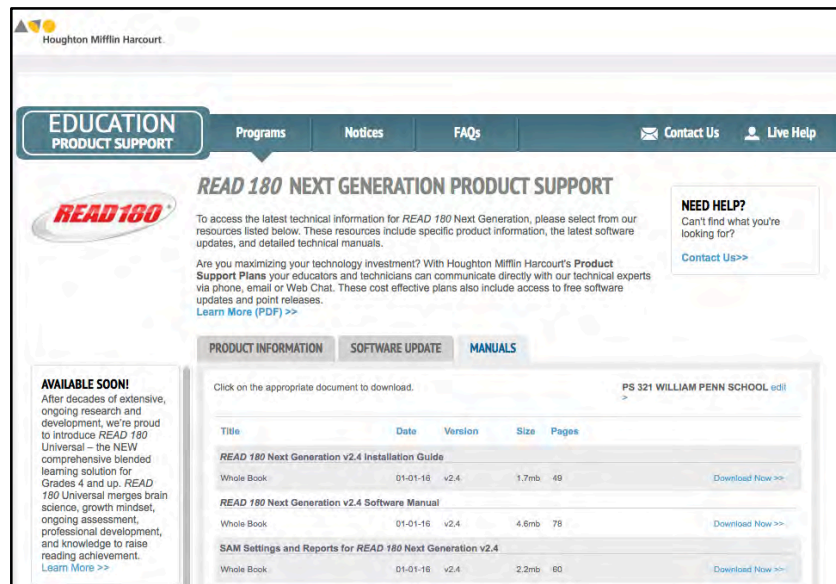


**Figure 11 Product Page on the Product Support Website**

Every program has a *Software Manual* that explains how to use the program and, where applicable, an *Installation Guide* that explains how to install the program.

Programs that work with SAM also have specific manuals, called *SAM Settings and Reports*, that describe how to enroll students in programs and set individual program settings through SAM, as well as describe the SAM reports for the program.

Programs have other documents, such as release notes, system requirements guides, data dictionaries, end user license agreements, and other guides, which describe or update different functions in SAM-based programs. Click the **Product Information** tab to access these documents.

All of these manuals, guides, and documents may be downloaded as PDFs from the Product Support website. Click the **Manuals** tab from any program's product support page to access the list of manuals for that product.

### Software Updates

Software updates enhance functions of SAM-based programs. These updates are made available to program users through download from the Product Support website. Click the **Software Updates** tab from any program's product support page to access the available updates for that product.

**Website Username and Passwords**
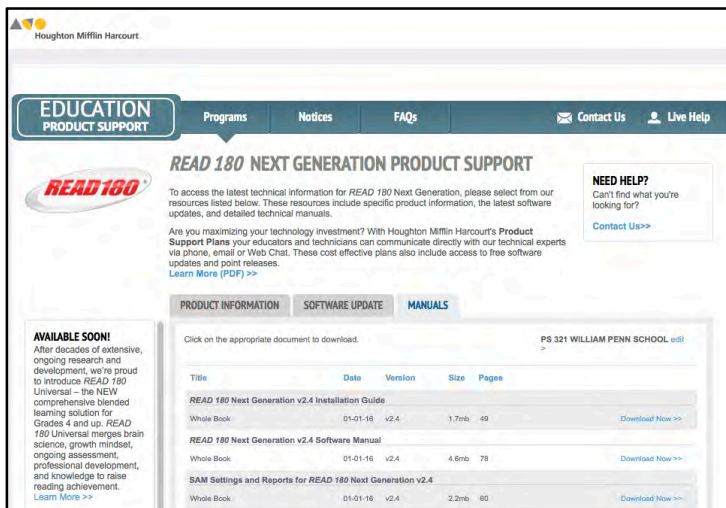


**Figure 12 Manuals Tab**

You can access manuals and updates for any program that your school or district has purchased and registered with a username and password. To obtain a username and password, click the **Register Now** link in the password box and follow these steps:

1.  Click the **Educator Registration** button in the Educators box at the left of the screen. Enter your name and email, create your username and password, and select your school or district location, then click **Continue**.
2.  Select your school's state from the pull-down menu, then select your school's city, and finally the school itself from the subsequent pull-down menus. Click **Continue** when you have selected the state, city, and school.
3.  Complete your profile and click **Submit**. You will now be able to use the username and password you created to access the Software Update and Manual pages for the programs your school has purchased.

## Downloading Manuals
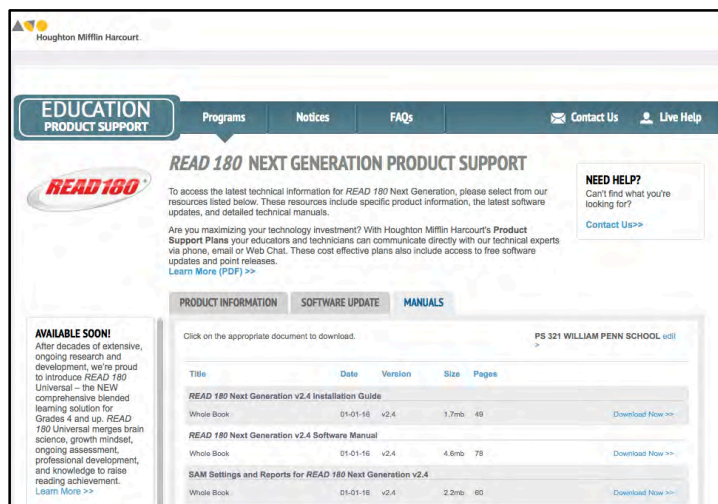


**Figure 13 Manuals Tab With Download Links**

To download manuals, click the **Manuals** tab, enter your username and password, then click the **Download Now** link next to the manual. The manual will open in a PDF.

Some larger manuals have been divided into downloadable sections for easier downloading. Complete versions are also available.

## SAM Manuals

There are several types of SAM manuals that cover the different functions and tasks that SAM can perform. The table below outlines the different SAM manuals and what information they provide. Manuals are also listed by release.

| For information on: | See: |
|---|---|
| How to set up an aggregate server, import or export records, or perform other administrative tasks | ***SAM Data Management Manual*** |
| Specific settings and reports for SAM-based programs | ***SAM Settings and Reports*** manual for the specific program |
| Setting up student and class profiles for *iRead* and *MATH 180*; specific settings and reports for *iRead* and *MATH 180* | ***Using SAM Central With iRead*** <br> ***Using SAM Central With MATH 180*** |
| Setting up SAM accounts at the district and school levels | ***Getting Started With*** <br> ***Student Achievement Manager*** |
| SAM Resources | ***Using Resources in*** <br> ***Student Achievement Manager*** |
| A quick-start guide to setting up a hosted SAM installation | ***Getting Started With*** <br> ***Hosting Services*** |
| Setting up Hosting Services and performing data-management tasks in a hosting environment | ***Hosting Services*** <br> ***User's Guide*** |
| Using SAM Connect | ***SAM Connect User's Guide*** |

**Figure 14 SAM Manuals**

## Planning Your SAM Installation
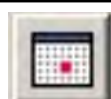
**Checklist**

| | |
|---|---|
|  | **When? Six months to four weeks before school.** |

Planning is key to successfully installing and maintaining any SAM installation. This checklist outlines the key tasks required for planning a SAM installation. Use it to set target dates for completing each task and keep track of your progress.

| Key Task | Target Date | Person/Group Responsible | Date Completed |
|---|---|---|---|
| Review the program's system requirements. (*page 17*) | | | |
| Choose a deployment option (including deciding whether to use a local deployment or Hosting Services). (*page 18*) | | | |
| Initiate a full technical audit (*page 22*). | | | |
| Conduct classroom audits to secure the appropriate technology and classroom materials (*page 22*). | | | |
| Select school and district SAM administrators (as necessary) and plan for accounts, profiles, and permissions (*page 24*). | | | |
| Select SAM Connect administrators (*page 26*). | | | |
| Select a Product Maintenance and Support Plan for the district (*page 27*). | | | |

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## Reviewing System Requirements

SAM installations are designed to handle large numbers of concurrent (simultaneous) users in both deployments hosted by local district servers and data centers. SAM-based programs include the following features:

- The ability for several schools to share the same server if you run programs over a district high-speed WAN

- Easy maintenance and automatic database backups

- Simplified Annual Yearly Progress (AYP) reporting—you can import and export student AYP data, and filter reports by AYP groups

### Locally Installed Servers

SAM Servers have been lab tested and proven capable of supporting up to 750 concurrent users in *READ 180* and *System 44* and 1,000 concurrent users in every other application. To establish server system requirements a simulated district infrastructure is tested with high-speed WAN, gigabit Ethernet switch, and 100Base-T connections to all workstations. These tests use servers with 64-bit operating systems, multi-core Intel Xeon processors, a minimum of 4 GB of memory, and a static IP address, including the following operating systems:

- Macintosh OS X Server 10.6.8 through 10.8.x

- Windows Server 2003 (32 bit), Windows 2008 (64 bit), Windows Server 2012 (64 bit)

- Novell SUSE Linux Enterprise Server 11 (64 bit)

It is important to remember that the listed concurrence levels are best-case scenarios. One or more of these factors may impact your district's concurrency performance:

- Network bandwidth across the enterprise

- Bandwidth utilization

- Packet prioritization availability

- Firewall configurations

- Processor speed on the server

- Server virtualization

- Available memory on the server

- Content filtering settings

- Improperly configured virus-protection software

SAM installations that serve more than 1,000 concurrent users or 100,000 active student accounts may require additional servers. These large installations should use servers with a 64-bit operating system and a minimum of 8 GB of RAM.

### Data Centers

Data Centers that host SAM-based programs (including *iRead* and *MATH 180*) are constantly adjusted to accommodate concurrent users. However, end user performance will be affected by the factors listed above, particularly bandwidth.

Download and review the ***SAM Suite System Requirements and Technical Overview***, available on the Product Information tab on the <u>Product Support</u> website, for the latest system requirements for SAM-based programs.

## Choosing a Deployment Option

After reviewing the ***SAM Suite System Requirements and Technical Overview***, choose the best deployment option for your district, based on the district's needs and capabilities.

Each deployment option requires:

- Student workstations in a classroom
- One or more teacher workstations
- One or more SAM Servers to which the workstations are connected

SAM-based programs are designed for flexibility and may be deployed in different ways, depending on the district's bandwidth, infrastructure, hardware CPU and memory, and the estimated level of concurrent usage. Consult with your Field Technical Engineer or Technical Support (*page 50*) on which is the most efficient deployment option for your district.
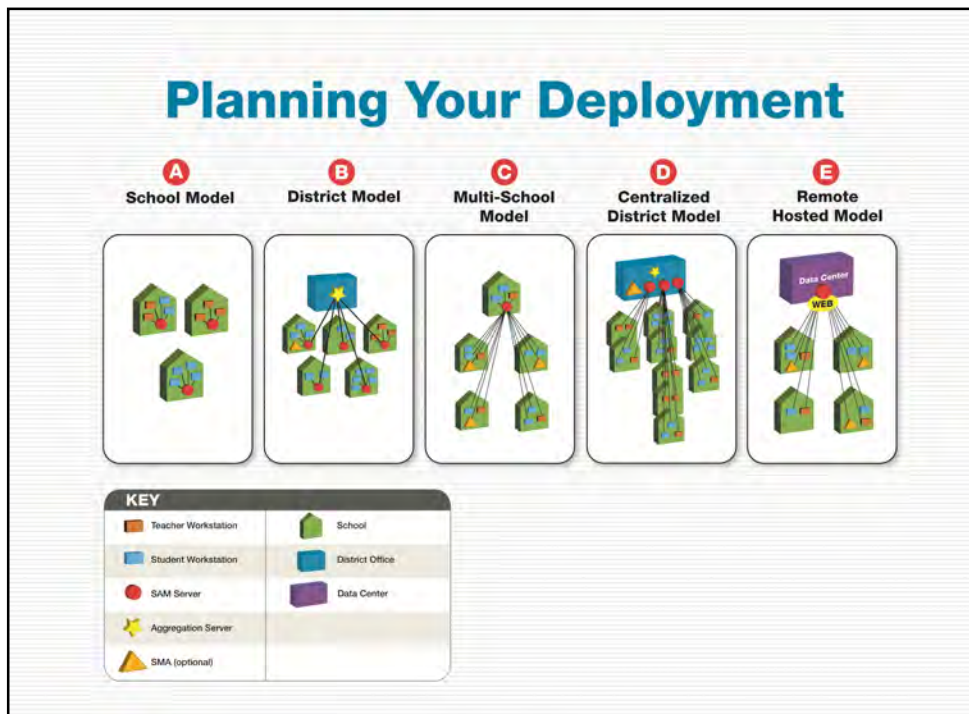
**Figure 15 Deployment Options for SAM Installations**

**OPTION A: SCHOOL MODEL**

**Local SAM Server(s) and no Data Aggregation Server:** In this deployment, each school has its own SAM Server, which is connected to all workstations in the school. There are no district-wide reporting or data aggregation capabilities. Use this deployment option if your school or district does not have high-speed infrastructures and if your district does not require aggregated data across the district.

**OPTION B: DISTRICT MODEL**

**Local SAM Servers plus Centralized Data Aggregation Server:** In this deployment, each school has its own SAM Server, but each SAM Server is connected to a district-wide aggregation server as well as student and teacher workstations in its school. This model is similar to the School Model, but with district-wide data aggregation capabilities added. Use this option if your district deploys application servers locally, but also wants to run district-wide reports.

**OPTION C: MULTI-SCHOOL MODEL**

**Centralized SAM Server and no Data Aggregation Server:** In this deployment, one central SAM Server connects all the school servers and workstations in the district. With one central SAM Server, there is no need for a separate aggregation server. Use this option if your district has a high-speed infrastructure and a server capable of supporting multiple schools.

**OPTION D: CENTRALIZED DISTRICT MODEL**

**Centralized SAM Servers plus Data Aggregation Server**: In this deployment, the SAM Servers are housed in a district data center, which also holds the aggregation server, and are connected to schools and workstations. Data from the district SAM Servers may then be aggregated to a district-wide aggregation server. Use this option if your district has a high-speed infrastructure and a centralized data center with multiple servers, each capable of supporting multiple schools.

**OPTION E: REMOTE HOSTED MODEL**

**Remotely Hosted Application Server:** This deployment uses Hosting Services. A Data Center becomes the district's SAM Server, with workstations using an Internet connection secured by SSL to connect to the hosted SAM Server. There are no school or district servers. Use this option if your district wants to eliminate the cost of installing and maintaining local servers, or if your district is moving toward an ASP or SaaS deployment model. Since records and data are managed on its server, no aggregation server is required.

## Tech Tip
**Programs that are only available on servers hosted by HMH, such as *READ 180 Universal, English 3D, Do The Math, Expert 21*, Code X Digital, *iRead*, and *MATH 180*, do not require any local SAM installation.**

**Which Deployment?**

The best way to decide how to set up your SAM installation is to work your Field Technical Engineer or Technical Support and review your technology capabilities. However, as a quick guide to which type of deployment to consider, use the chart below (generally, a high-speed infrastructure should have an intranet that can handle 20 MB/s or better).

| If your district… | Consider… |
|---|---|
| • Has a low-speed infrastructure (less than 20 MB/s)<br>• Uses school-based rather than district-level servers<br>• Only plans on using installations in individual schools<br>• Requires only school-based data aggregation | A **Local** deployment of Option A |
| • Has a low-speed infrastructure (less than 20 MB/s)<br>• Uses school-based rather than district-level data centers<br>• Plans on using the installation across the district<br>• Requires district-wide data aggregation | A **Local** deployment of Option B |
| • Has a high-speed infrastructure<br>• Has a server capable of supporting several schools<br>• Only plans on using installations in individual schools<br>• Requires only school-based data aggregation | A **Local** deployment of Option C |
| • Has a high-speed infrastructure<br>• Has a district-wide data center<br>• Plans on using the installation across the district<br>• Requires only school-based data aggregation | A **Local** deployment of Option D |
| • Has no server capability or need for one<br>• Lacks the resources to maintain a local installation<br>• Wants data centralized<br>• Matches any of the criteria listed for setting up a Hosted installation | A **Hosted** deployment of Option E |

### District Technical Audits

When a school or district purchases SAM-based programs, a technical audit will be performed to assess the school or district's technology infrastructure and make recommendations for meeting the system requirements of SAM-based programs.

Technical audits are designed to:

- Ensure that you can run the SAM-based programs

- Help in your deployment decisions

- Help identify hardware needs

Choose a deployment option prior to beginning the Technical Audit.

### Conducting the Audit

There are two types of audits: one for a local installation and one for a hosted installation. When a technical audit is requested, you will receive an email with a link to the Tech Audit Questionnaire. You have 10 days from purchase to complete the questionnaire. If the Tech Audit questionnaire is not received in that time, the district will be contacted to discuss the audit.



**Figure 16 Tech Audit Questionnaire**

When the questionnaire is received, Technical Support will contact you to review the audit and, if necessary, recommend hardware improvements or upgrades to bring your district infrastructure into compliance with the System Requirements.

### Maximizing Your Resources

If your school or district does not have enough computers for all of the students enrolled in SAM and SAM-based programs, you may want to designate computers by program and set up a computer center in a classroom. Computers may be designated by program (*READ 180*, *System 44*, *FASTT Math*, etc.) or by subject area (reading, math) and as students move from English language arts (ELA) classes to math classes, they may use the designated computers.

### For More Help With Your Technical Audit

Call the Tech Audit Team at 1-888-557-7299 (select option 1) for help with your technical audit.

## Setting Up Your Administrator Team

Depending on your district's size and needs, appointing an administrator team to help run the district's SAM installation is recommended.

Set the individual responsibilities of your team members to meet the priorities and needs of the district. Most districts' technical coordinators assign members of the SAM administrator team one of the four remaining types of SAM accounts:

- **Teachers**: These are for classroom-based users, including teachers and teaching assistants.

- **School Administrators**: School administrators have administrative responsibilities for multiple educators within a single school.

- **School Technical Administrators**: School technical administrators are the primary technical contacts for schools using SAM-based programs.

- **District Administrators**: District administrators have administrative responsibilities for various school administrators.

Set yourself up as the Technical Coordinator, with responsibilities and permissions for being the primary technical contact for your district. Have regular meetings with your administrator team to share and discuss upcoming tasks, issues that may arise, or any problem that needs to be brought to the attention of Technical Support.

A large implementation (greater than five schools) will require at least one SAM administrator for each school.

### Permissions

For security purposes, SAM uses permissions to allow different levels of access to SAM data. Permissions are based on account type, but they may be customized depending on the particular needs of the school or district (for example, if a teacher in a school is also the school or district's technical administrator).

Customize user permissions in the user's profile screen in SAM. To learn how to access a user's profile screen and set permissions, see *Getting Started With Student Achievement Manager* at the Product Support website.

Default permissions for each type of user are as follows:

| | SAM Permissions/ Responsibilities | Teachers | School & School Technical Administrator | District Administrator | Technical Coordinator |
|---|---|---|---|---|---|
| **Student Settings** | • Student Profiles<br>• Program Usage<br>• Program Settings<br>• Grading Tools<br>• Student Reports<br>• Resources and Standards | √ | √ | √ | √ |
| **Class & Group Settings** | • Class/Group Profiles & Rosters<br>• Program Usage<br>• Program Settings<br>• Class/Group Reports<br>• Resources and Standards | √ | √ | √ | √ |
| **Teacher Settings** | • Teacher Profiles<br>• Class/Group Assigned<br>• Program Usage<br>• License Availability<br>• Resources and Standards | √ | √ | √ | √ |
| **Grade Settings** | • Grade Profiles<br>• Teacher Lists<br>• Program Usage<br>• License Availability<br>• Resources and Standards | | √ | √ | √ |
| **School Settings** | • School Profiles<br>• Grade Lists<br>• Program Usage<br>• License Availability<br>• Aggregated School Reports<br>• Resources and Standards | | √ | √ | √ |
| **District Settings** | • District Profile<br>• School Lists<br>• Program Usage<br>• License Availability<br>• Aggregated District Reports<br>• Resources and Standards | | | √ | √ |
| **Advanced Settings** | • Manage Licenses<br>• Manage Enrollment<br>• Create/Delete Accounts<br>• Import/Export Data<br>• Backup Database<br>• Promote Students<br>• Use SAM Server Utility | | | √ | √ |

### SAM Connect Administrators

In addition to district and school administrators, it is also important to establish SAM Connect administrators. It is recommended that the technical coordinator setting up SAM also be the lead SAM Connect Administrator.

When you register the server with SAM Connect, you become the SAM Connect Administrator with the following permissions:

- Add new SAM Connect administrators

- Edit other SAM Connect administrator accounts

- Manage updates

- Manage authentications

When adding new SAM Connect administrators, you may assign any or all of these permissions, or change the permissions, to the SAM Connect administrator accounts you create. See the ***SAM Connect User's Guide*** for more information on creating administrator accounts.

### Selecting a Product Maintenance and Support Plan

Districts using SAM-based programs are strongly encouraged to have a Product Maintenance and Support Plan. Work with your district's representative to keep the district's plan current.

There are two types of Product Maintenance and Support Plans: Premium and Basic.

#### Premium Plan

This plan includes:

- On-site assistance from Field Technicians
  (to troubleshoot identified software issues if unable to resolve over the phone)

- Support coverage for all programs

- Software updates and maintenance releases

- Access to Training Zone, Interactive Teaching System, and iPad versions of SAM-based programs

- Phone support

- Email support and Web chat

#### Basic Plan

This plan includes:

- Support coverage for all SAM-based programs

- Software updates and maintenance releases

- Phone support

- Email support and Web chat

#### Additional Technical Services

In addition to services provided with your Product Maintenance and Support plan, these technical services are available to all users:

- Software updates and maintenance releases

- Phone support

- Email support

- Web chat

### Contacting Technical Support

If you or your district technical support team cannot resolve any issue, contact Technical Support through the Education Product Support website (hmhco.com/productsupport) or by phone at 1-800-283-5974.

## Setting Up Your SAM Installation

**Checklist**

| | |
|---|---|
|  | **When? Four to two weeks prior to the first day of school.** |

Once planning is completed, there are several steps to setting up the SAM installation in your district or school.

This checklist outlines the major tasks required for setting up your SAM installation. Use it to set target dates for completing each task and track your progress.

| Key Task | Target Date | Person/Group Responsible | Date Completed |
|---|---|---|---|
| Install SAM (*page 29*) | | | |
| Register SAM Connect (*page 30*) | | | |
| Install SAM-based programs (*page 29*) | | | |
| Schedule SAM backups (*page 33*) | | | |
| Activate or convert licenses (*page 34*) | | | |
| Launch the SAM Server Utility (*page 35*) | | | |
| Import student and teacher data into the SAM database (*page 36*) | | | |
| Review data best practices (*page 38*) | | | |

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## Installing SAM and SAM-based Software

If your district is using its own SAM Server, then install SAM and all SAM-based programs manually on the server. Districts using Hosting Services do not need to install SAM or any other program, though you will need to bookmark the Student Access screen and Educator Access screen on the student and teacher workstations.

### Local Installation

To manually install SAM on your district servers, use the SAM installation DVD discs that come in program software kits. Once SAM is installed, install the SAM-based programs in the same manner.

SAM-based programs version 2.0 or later use an HTTP connection to connect workstations to the server. This requires a browser program (such as Internet Explorer, Safari, or Firefox) on the workstation. In this browser-based setup, no software is installed on the client workstations; the installers set up the connection and provide a link for the workstations. Any older clients installed on the workstations should be removed to avoid confusion.

For more instruction, download the ***Installation Guides*** for specific programs from the [Product Support](#) website.

### Data Center Hosting

Since districts using Hosting Services are not using a local server, there is no need to install SAM or program software. You will be provided with the server link upon enrollment in Hosting Services. See the ***Hosting Services User's Guide*** for more information.

### Software Updates

Software updates are always available on the [Product Support](#) website. When installing SAM-based programs, always check the [Product Support](#) website for product updates to ensure that you are running the latest version of the software.

If your district is using a data center to host your SAM Server, your software will be updated automatically and you will be notified of all updates.

If your district uses local servers only, you may manually update your software on the SAM Server. You should also check the [Product Support](#) website as part of your installation process as well.

You may also schedule updates to be performed using the SAM Connect Update Manager. See the ***SAM Connect User's Guide*** at the [Product Support](#) website for more information.

### Registering SAM Connect

Once SAM and SAM-based programs are installed on your SAM Server, the next step is to activate SAM Connect by registering your SAM Server and matching your schools.

### Registering SAM Servers

Each SAM Server in your district must be registered with SAM Connect. This is usually done as part of the SAM installation process, but you may also use the SAM Connect Registration Wizard at [samconnect.hmhco.com/regwiz](samconnect.hmhco.com/regwiz). Once the server is registered and the registration key is downloaded, you may log in to SAM Connect and set up your administrator account.

Remember to check the box marked "Set up my administrator account" when registering the server to set up your SAM Connect administrator account.

### Naming SAM Servers

Name your SAM Server as part of the SAM Connect registration process. Naming conventions are important in SAM deployments as they directly affect your ability to identify servers.

---

**Best Practices for Naming SAM Servers**

- Server names **MUST BE** unique. Having two servers with the same name in the same SAM deployment will cause errors in data reporting and result in inaccurate reporting.

- Avoid generalities in naming servers ("the school server," "the reading server," "the math server").

- Use either a district or school name in the server's name ("Quincy District 1," "Quincy Middle School").

- If a server is dedicated to one program or suite of programs, use the name of the program in the name of the server ("Quincy District_R180").

---

## Matching Schools

In order to connect your server with your customer account in the database, all schools in the district must be registered with SAM Connect.

When registering the server, SAM Connect will attempt to auto-match every school on the district server. If SAM Connect cannot match a school, it sends an email to the administrator explaining the problem and providing a link to the School Match tab on the SAM Connect Home screen. You must then manually match the school.

For more information on setting up and matching SAM Servers to SAM Connect, see the **SAM Connect User's Guide** at the Product Support website.

In Next Generation programs, data received in SAM Connect is reported in the Next Generation Teacher and Leadership Dashboards or SAM Central. In order for this data to be reported correctly and accurately, it is vital that the SAM Servers that communicate with SAM Connect be properly matched. Data from unmatched servers will be incomplete and can possibly result in inaccurate analysis.

## Using the Authentication Tab in SAM Connect

The Authentication Tab allows SAM Connect administrators to view the district's Web-based programs (including SAM Central, the Teacher and Leadership Dashboards in Next Generation programs, *iRead, MATH 180, Expert 21*, *Do The Math,* Code X Digital, the Interactive Teaching System, and others).
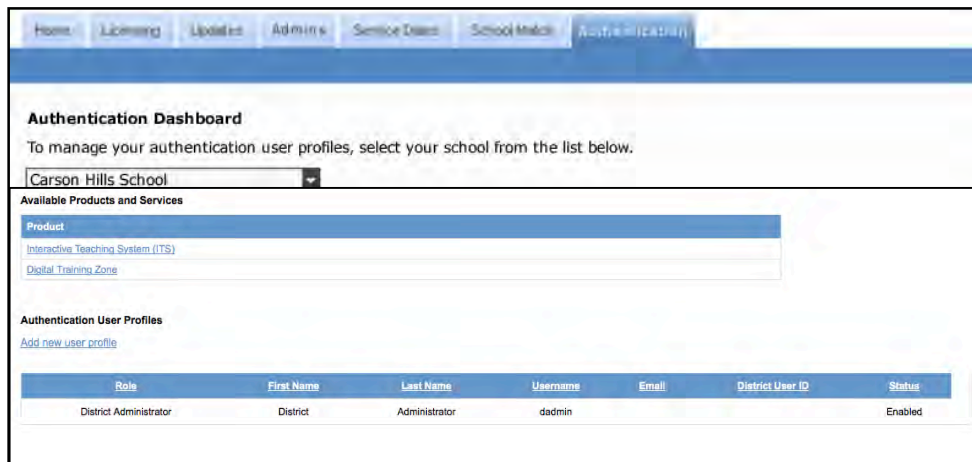


**Figure 17 School View Screen on the Authentication Dashboard in SAM Connect**

Clicking the Authentication Tab opens the **Authentication Dashboard**. The pull-down menu lists all schools with registered SAM servers or with SAM Connect accounts, as well as the District Office. Clicking a school from the pull-down menu opens the **School View screen**. The School View screen contains two tables:

- **Available Products and Services**: This table shows the Web-based programs purchased by the district as links that open the program's login screen.

- **Authentication User Profiles**: This table shows all of the selected school's users who are able to access these programs. The table will be read-only since user profiles are edited in SAM. If the school has a non-registered SAM account, then the table will have live links to add new users, import rosters, edit user profiles, and delete user profiles.

## Scheduling Your SAM Database Backup

A SAM backup saves a copy of the entire database at a given moment. It is important to back up the database at regular intervals (backing up the database at least once a week is recommended; districts with heavy usage may want to run backups daily). Once your SAM installation is set up, use the Advanced Settings in SAM to set regularly scheduled backups of the database, or use the Database Manager in the SAM Server Utility to manually backup and restore the SAM database.

At the first administrator login, you will be promoted to schedule a database backup.

See the **Backing Up the Database** section of the *SAM Data Management Manual* on the Product Support website for step-by-step instructions for scheduling a database backup, or the *SAM Server Utility User's Guide* for instructions on performing a manual backup.

Once the backup process is finished, if you scheduled the backup through SAM, you will receive a notification in the Message Center on the SAM Home Page. Close the window to return to SAM. You can access the backup file by clicking the **Show Me** link in the Message Center.

Backups are saved to the following location:

**<install directory>\HMHEE\SAM_Server\jboss\Scholastic\lycea\deploy\ sam-download.war**

Be sure you save your backups to a safe place. Portable media (such as a flash drive or CD-ROM) that can then be stored off premises is recommended for saving backup files. Using the SAM Server Utility (*page 35*), you can also set a secondary backup where the nightly backup will be saved.

### Tech Tip
**Because it is not possible to perform a successful backup while anyone is using any program in the SAM installation, schedule this utility for after-school hours.**

## Activating Licenses

To enroll students in SAM Suiteprograms, there must be an active license for each student in each program. Licenses may be activated manually or through SAM Connect.

### Activating Through SAM Connect

To activate licenses through SAM Connect:

1. Confirm that the SAM Server is registered with SAM Connect and that all schools are matched.
2. Contact Customer Service at 1-877-234-7323, and provide the representative with the school or district address, ZIP code, and the name of the server. The representative will activate licenses through SAM Connect.

**Next Generation Program Users**: Districts upgrading to Next Generation programs from Enterprise Editions of the same programs may have their Enterprise Edition licenses converted to Next Generation licenses through SAM Connect. Students must be unenrolled from the earlier programs in order for the license to be freed for conversion. For more information, see the program's ***Installation Guide*** at the Product Support website or contact Customer Service.

## The SAM Server Utility

The SAM Server Utility contains tools to help you customize and maintain your SAM installation. Technical coordinators and district administrators have permissions in their accounts to access the SAM Server Utility. Use the SAM Server Utility to:

- Backup and restore databases

- Set an alternative backup location

- Stop and start services

- Collect files to send to Technical Support to resolve problems

- Change your memory configurations

- Change your district's password configurations

- Delete records and files from the server at the end of the school year

### Using the SAM Server Utility

See the ***SAM Server Utility User's Guide*** on the Product Support website for detailed instructions on how to use the SAM Server Utility to perform these functions.

### Launching the SAM Server Utility

There are several ways to launch the SAM Server Utility; however, you must launch the utility directly on the server. It cannot be used from a workstation.

To launch the SAM Server Utility in Windows:

1. Open My Computer → <install directory> → HMHEE → Sam Server → util.
2. Double-click the Sam Server Utility.exe icon.

To launch the SAM Server Utility using a Macintosh:

1. Open a Finder window.
2. Open <install directory> → HMHEE → Sam Server → util.
3. Double-click the Sam Server Utility icon.

To launch the SAM Server Utility using Novell/Linux:

1. Open a Finder window.
2. Open <install directory> → HMHEE → Sam Server → util.
3. Double-click the Sam Server Utility icon.

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## Importing Data Into the SAM Database

When the SAM Server is installed or connected, the necessary licenses are activated, password defaults and other server settings are set with the SAM Server Utility (if necessary), and all SAM software is working properly, the next step is to import student, teacher, and administrator data into SAM. Roster imports may also need to be performed during the school year. Plan ahead and notify your team prior to performing the import. Updates to the same user IDs do not impact data.

Student data may be stored in existing SAM databases, in district records, or in documents formatted into comma-separated value files (*.csv or *.xml). All of these types of records may be imported into SAM.

### Formatting Files for Roster Imports

Before using the roster import feature in SAM, make sure that the field names in the *.csv or *.xml files match the required SAM data fields:

- **District or Student ID** (the teacher's, administrator's, or student's identification number in SAM or in other student information systems)

- **First Name**

- **Last Name**

- **Username** (the student's SAM username or username in the student information system)

- **Grade** (for student imports)

---

**Best Practices for Roster Imports**

- **It is vital that two different users do not have the same District User IDs on the same server when performing an import**. If two users have the same District User ID, the newer user will be added to the Roster Import and the older user's account will be overwritten.

- Confirm that a teacher or administrator's District User ID is the same in the import file as in the database, or it will inadvertently create a new account.

- Always back up your database (*page 41*) before performing any file import.

- Run imports after hours when students are not using the software.

- If a user must be on multiple servers, all information (user ID, username, password, first name, last name, email) must match exactly.

---

See the ***Data Dictionary*** on the Product Support website for additional information.

---

### Using the Import Tool in SAM

Once you have created a roster import file for students and teachers, you can proceed with the roster import process by signing in to SAM. See the Roster Import section of the ***SAM Data Management Manual*** on the Product Support website for step-by-step instructions for using the SAM Import Tool.

### Automatically Creating Classes

The SAM Import Tool can also create classes that will automatically appear in the SAM SmartBar, thus eliminating the need to manually create student and class profiles when setting up the SmartBar at the beginning of a school year.

If the schools that will hold the student and class data are already in the SAM SmartBar, then the Import Tool will create classes within that school so that each imported student can be associated with the proper class. If the class already exists, the student will just be placed in that existing class. For more information, see the ***SAM Data Management Manual***.

### Tech Tip

**You may also import student data into a "holding" class so teachers may move those student profiles into their classes. Give the holding class a false name, such as "zzz_Holding class," and use the Import Tool to import those records into the holding class. This will also minimize any impact on reporting. Starting the class with "zzz" is recommended so it is easily identified and does not impact data reporting.**

## Maintaining Your Data: Best Practices

It is vital to maintain good data hygiene when working with SAM Suiteprograms that report student data.

### District and School Profiles

When setting the district profile in SAM:

- Select all programs that are housed on the SAM Server. This will ensure that student program data will be reported correctly in SAM Connect.

- Check that school-year dates are consistent for all schools and classes across different servers. These dates MUST be consistent for accurate data reporting.

- Select the district's school days and hours and make sure they are consistent across all SAM Servers in the district. This is important for setting controls on student use of programs outside of school. Select the programs that require set time controls by clicking the check box next to the program.

### Teacher Profiles

When setting teacher profiles in SAM:

- Each teacher MUST have a unique District User ID and username in his or her profile, regardless of which of the district's SAM Servers the teacher is on. If different users have the same District User ID (e.g., John Jones and Jane Jones both having "JJones") in profiles on two different district servers and you attempt a Roster Import, the newer profile will be added to the aggregation and the older one will be overwritten. If you are unsure if there are duplicate District User IDs, new User IDs may be generated automatically during the import process.

- If two teachers (or any two users) have the same District User IDs in their profile and you perform a data aggregation (*page 46*), the newer profile will be added to the aggregation and the older one will be overwritten.

### Class Profiles

When setting class profiles in SAM:

- Class names **MUST BE** unique and descriptive. The following format for naming classes is recommended: teacher first initial and last name, period or class number, product (e.g., "SGreene_4-401_R180"). For classrooms with multiple products, use the lead product in the suite (*READ 180*, *READ 180* Next Generation, *System 44*, *System 44* Next Generation, *iRead, MATH 180, FASTT Math, FASTT Math* Next Generation*, Fraction Nation, ReadAbout,* etc.), or the most-used program.

- Do not split class data across multiple servers.

- Do not split programs in a suite across multiple servers.

- Keep program selections in the Manage Applications section of the Class Profile current and accurate to ensure proper data sorting and reporting.

### Student Profiles and Enrollment

When setting student profiles in SAM and enrolling students in SAM Suiteprograms:

- Each student User ID and username **MUST BE** unique.

- Student profile information must match EXACTLY across different SAM Servers in the district.

- Do not enroll the same student in the same program on different SAM Servers.

- Students should be enrolled in one program on only one server.

- If you are enrolling students in a suite of programs, make sure students are enrolled in all products in the suite (this is especially true for Next Generation users).

- Use a student ID that is consistent with your Student Information System to facilitate merging SAM and non-SAM data (like state test results) for analysis.

### Next Generation Users

- When enrolling students in a Next Generation suite of programs, make sure that they are enrolled only in those programs in that Next Generation suite.

- If you are moving students from an Enterprise Edition of a program to the Next Generation version of the program, you will need to unenroll those students from the older program, then convert the licenses (*page 34*), then reenroll the students in the Next Generation program using the converted licenses.

- Be aware that if you are migrating data for students reenrolled in *READ 180* Next Generation from *READ 180* version 1.10 or older, only four data points will migrate to the newer program: *READ 180* level, Topics completed, segments completed, and program settings.

---

## Running Your SAM Installations

### Checklist

| | |
|---|---|
|  | **When? During the school year.** |

Once the school year begins, the focus will shift to maintaining your district's SAM installation and performing necessary tasks that arise during the year, such as transferring students and exporting records. Use the chart below to schedule and record your school-year tasks.

| Tasks | Scheduled Day(s)/Time | Person/Group Responsible | Date(s) Completed |
|---|---|---|---|
| Backup Database (*page 41*) | Weekly (Saturday/2 AM) | | |
| Cleanup Database (*page 41*) | First Day/Last Day Of Semester | | |
| Transfer Students (*page 42*) | As Needed | | |
| Provide On-Site Technical Support (*page 43*) | As Needed | | |
| Review Data Maintenance Best Practices (*page 44*) | Monthly/As Needed | | |

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## Maintaining the SAM Database

A SAM database file is a very large file, and therefore it is important that it is properly maintained in order to keep your school or district's SAM installation running smoothly. The database can easily accumulate non-relevant data from deactivated, deleted, or inactive accounts. It is also vital to protect database files in the event of a server malfunction or power outage.

### Backing Up the SAM Database

Protect your SAM database files from server malfunctions or power outages by running regularly scheduled backups.

Scheduling backups (*page 33*) when installing the SAM installation means your database backups will occur automatically. You need only check and log that backups were completed at the appropriate time and are saved to the selected location.

Backups will not be successful if any activity is taking place on the SAM installation when they are scheduled, so it is important to schedule the backup for a time when you are sure no one will be accessing the database, such as a Saturday at 2 AM. It is always a good practice to notify all teachers and administrators of the upcoming backup in order to make sure no one is using the database at the time.

It is a good practice to also save the backup file to a second location that is not on the server computer (portable media such as a flash drive, optical disc, or external hard drive is recommended) and not on premises. When you check that the scheduled backup is completed, check also that the external media holds the latest backup file. This can be accomplished using the SAM Server Utility.

### Cleaning the SAM Database

When a student's record is removed from SAM, their data is not automatically deleted from the SAM database. This allows student records to be restored by a Field Technician or software engineer in case of an error or other emergency. However, as a district's SAM database accumulates deactivated and deleted student accounts over time, these records may impair database functions.

Therefore, it is important to clean the SAM database at the beginning and end of every semester and also when the SAM installation is running slowly and diagnostic steps need to be taken.

The Database Cleanup Utility in the SAM Server Utility removes extraneous data safely and without affecting the rest of the database. To learn how to use the Database Cleanup Utility, see the ***SAM Server Utility User's Guide*** on the Product Support website.

## Transferring Students

When a student transfers from one district school to another, or into the district from another district, that student's data may be transferred between SAM installations. The Student Transfer process removes all performance records from the student's current school and prepares a file to import that student's data into another SAM database. Students who are transferred are deleted from their existing SAM database. If your district is combining data across several SAM installations, the Student Transfer function helps maintain clean databases for aggregation by avoiding duplicate records for the same student in more than one SAM installation.

For instructions on how to use the Student Transfer function in SAM, see the Student Transfer section of the ***SAM Data Management Manual*** on the Product Support website. When a student transfer is complete, a confirmation message will appear in the Message Center.

SAM Account Status is defined as follows:

- **Enrolled** students are enrolled through SAM in one or more programs

- **Active** students are listed in classes but are not enrolled in programs

- **Inactive** students are in the SAM database but not listed in classes or enrolled in programs

- **Deleted** student have no profiles in SAM but remain in the database (not visible to the user in SAM)

- **Purged** students are no longer in the SAM database

| | Uses a License | Included in Reports | Included in Exports | Carries Class and School Info | Available to Place in Class | Records Remain in Database |
|---|---|---|---|---|---|---|
| **Enrolled** | YES | YES | YES | YES | N/A | YES |
| **Active** | No | No | YES | YES | N/A | YES |
| **Inactive** | No | No | No | No | YES | YES |
| **Deleted** | No | No | No | No | No | YES |
| **Purged** | No | No | No | No | No | No |

**Figure 18 SAM Account Status**

### Tech Tip
**You may wish to create a SAM administrator account with student transfer permissions for the school's attendance clerk. You can monitor the student transfers through the Message Center.**

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## Providing On-Site Technical Support

The district's technical coordinator or district administrator is the first go-to source for technical support for teachers and school SAM administrators. Establishing lines of communication with SAM users is important.

Follow these steps to establish clear communication with SAM users in your district:

- Establish more than one form of communication (dedicated phone line, email, text). Ask and note which method is the most effective for each user.

- Provide contact information to teachers, principals, and administrators in your district who are using SAM and SAM Suiteprograms.

- Use more than one method of communication. Multiple reminders help everyone!

- Keep a log of each classroom using the SAM installation, and record important dates, goals, and objectives of each classroom.

In addition to communicating with SAM users in your district, you are also the district's contact person for Technical Support. Your first step should always be calling the Help Desk at 1-800-283-5974. Keep this information at hand for questions and troubleshooting information.

## Working With Technical Support

If your district has an active Product Maintenance and Support Plan, you can contact Technical Support at any time at 1-800-283-5974. However, most technical support issues can be best solved at the school or district level. It is good practice to develop a protocol or flow chart for dealing with technical issues and circulate the protocol to the teachers and administrators in the district. Every district has different needs and resources; use these in developing the protocol.

It is also important to assess the following questions before contacting Technical Support:

- **What diagnostics has the teacher performed?** Ask the teacher what steps he or she has taken to solve the issue prior to contacting you.

- **Is the issue related to hardware or software?** Hardware-related issues should be directed to the hardware manufacturer's technical support team or to your district's IT team if applicable. Software-related issues should be investigated to determine if the issue is related to SAM-based programs. Technical Support can also assist with this.

Make sure to log all technical support issues, and mark when they are resolved.

### Running the SAM Installation: Best Practices

#### Servers

- Check that all district SAM Servers are registered.

- Check that all district SAM Servers are uniquely named.

- Check that all district SAM Servers are properly matched.

- Confirm that SAM Connect is checking in with all district SAM Servers (see the *SAM Connect User's Guide* to see how to check that the Servers are checking in with SAM Connect).

- Check that the district SAM Servers have SAM and all programs properly installed and working correctly over the network (see the program's *Installation Guide* to see how to check that SAM and the program are properly installed and working).

- Check that SAM is managing student data in all installed programs.

- Set a schedule for backing up the district's SAM Servers at regular intervals (*page 33*).

#### Data

- Confirm that all schools in the district have consistent school-year dates in the school's Profile screen.

- Confirm that all programs used by a class are checked in the Manage Applications screen of the class's Profile screen and, conversely, that all programs checked are being taught in that class.

- Check that all classes have unique names (*page 38*).

- Check that all students and teachers have unique names and unique District ID numbers (*page 38 and 39*).

- Check that there are sufficient licenses for all students in all required programs (*page 34*).

#### Enrollment

- Check that all students are enrolled in their programs.

- Check that students are not enrolled in the same program on multiple servers.

- Check that students enrolled in a product suite (*READ 180*, *READ 180* Next Generation, *System 44*, *System 44* Next Generation, *iRead, MATH 180, FASTT Math, FASTT Math* Next Generation*, Fraction Nation, ReadAbout*) are enrolled in all suite programs on the same server.

## End-of-Year Tasks

**Checklist**

**When? Last five weeks of the school year and early summer.**

At the end of the school year, plan and perform a series of procedures that will follow student movement from one grade to another, and aggregate student and class data from SAM.

Use this checklist to schedule these end-of-year tasks. Share these plans and dates with teachers and administrators in your district so they can better plan their SAM usage, as well as know when to expect the tasks to be completed.

| Task | Target Date | Person/Group Responsible | Date Completed |
|------|-------------|--------------------------|----------------|
| Aggregating School-Year Student Data (*page 46*) | | | |
| Exporting Data (*page 47*) | | | |
| Promoting Students (*page 48*) | | | |
| Backing Up and Storing Database Files (*page 49*) | | | |
| Decommission Servers (*page 49*) | As needed | | |

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End-of-Year Tasks • **45**

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## Aggregating School-Year Student Data

All SAM servers aggregate student performance data. However, if your district or school uses more than one server, you will need to use an aggregation server that will draw and aggregate data from the other district application servers.

Aggregations may be scheduled for any point in the school year, but aggregating year-end student performance data is a vital year-end task if your district uses or reviews cumulative student, grade, or school data.

Whether you need to aggregate data depends on your SAM installation.

- If you are using local application servers that connect to a central district server, or if you are using a central server with several application servers and one aggregation server, you will need to aggregate data for district-level reporting.

- If you are using local application servers with no aggregation server, or if your district is only using one application server, you will not need to aggregate data for district-level reporting.

- If your district is using Hosting Services, data is aggregated at your request. See the ***Hosting Services User's Guide*** on the Product Support website for more information.

To aggregate data using an aggregation server, make sure both your aggregation server and your application servers are running the same versions of SAM, then use the SAM Auto-Aggregation Scheduler. For instructions on using the Scheduler, see the Data Aggregation section of the ***SAM Data Management Manual*** on the Product Support website.

If the same school, class, group, or student name exists on different SAM installations, SAM will add a number to the school name to distinguish the different schools. This change only appears on the aggregation server; it makes no changes to the data on the application servers.

SAM aggregates data based on student IDs. Students that have data from the same program on two separate databases will have the data with the latest entry aggregated.

## Tech Tip
**The data from the application servers that will be aggregated will also be combined, so the database will appear as a single district. Do not aggregate data from different districts, or for more than one district at a time.**

## Exporting Data

Student data needs to be exported at the end of the school year. When students transfer out of the district or change schools within the district, their data will need to be exported out of the school's SAM installation. Year-end data aggregation and backups will also require data exports.

The easiest way to export data is through SAM. See the Data Export section of the ***SAM Data Management Manual*** on the Product Support website for instructions on exporting data through SAM.

Student roster and performance data may also be exported for use with other software programs, either with the district's own student information system or with a spreadsheet program such as Microsoft Excel.

When the export file is ready, you will see a notification in the Message Center on the SAM Home Page. Click the link in the Message Center to open the message, then click the link in the message to save the export file to a flash drive, CD-ROM, or external hard drive.

### Tech Tip
**Exporting large amounts of data could take several hours; plan accordingly.**

## Promoting Students

The Manage Student Promotions Wizard in SAM allows administrators to promote students from one grade to the next at the end of the school year. Use the Wizard to promote large groups without changing every student's profile in the district database.

The Manage Student Promotions Wizard also serves the following functions:

- **Promote students** a single grade while leaving them in their current classes in the SmartBar. This could be useful if an entire class is being promoted together, but staying together as a group.

- **Remove students from all of their current classes** in the SmartBar, but leave them in the SAM installation, accessible with the Manage Inactive Accounts function. Choosing this option creates a *.csv file, where you can edit the grade and class names in Excel (or a similar spreadsheet program) and then use the Roster Import function to place the promoted students into new classes. See the *SAM Data Management Manual* for more information.

- **Remove students from the SAM installation** entirely. This option prepares a transfer file you can use to create accounts for students in a different SAM installation. The Wizard creates either one file for each student or a single file containing all the students being removed at a given time. You can use these files to transfer students to another SAM installation. Students removed from the installation are also unenrolled from SAM Suiteprograms, freeing up licenses associated with that student.

See the Student Promotions section of the *SAM Data Management Manual* on the Product Support website for instructions on using the Manage Student Promotions Wizard.

The Manage Student Promotions Wizard will not work properly if the SAM database is in use, so be sure to schedule the promotions for a time when no one is logged into SAM. It is also important to backup the SAM database before launching the Wizard.

When the Wizard is finished, you will receive a message in the Message Center informing you that the promotions have been completed.

### Tech Tip
**When saving *.csv files, be sure to select All Files in the Save As Type pull-down menu; otherwise they will be saved as HTML files.**

## Backing Up and Storing the Database

The last year-end task is the database backup. Do this last so the backup incorporates all aggregated data and student promotions.

It is a good practice to perform this backup manually to ensure that all settings and data are included. See the ***SAM Server Utility Guide*** on the Product Support website for instructions on performing a manual backup.

Once the backup is finished and the message appears in the Message Center, save and store the database file on separate media (flash drive, external drive, or CD-ROM), and label it with the school year and district name clearly marked.

## Decommissioning Servers

If you need to repurpose a server or need to remove the SAM installation from the server, the server must be decommissioned (this often happens at the end of the year if upgrading to a newer server, for example). To clear SAM from the server:

1.  Follow the uninstall instructions in the SAM Server Uninstall folder.
2.  Manually remove the SAMServer.properties file from the operating system. On a Windows-based server, this file is located in the Windows\System32 folder; on a Macintosh-based server, the file is located in the Libraries/Preferences folder.

Once the SAM Server is uninstalled and the SAMServer.properties file is removed, the server is clear of SAM components and can be repurposed.

If moving the database to a new server, do not copy the ScholasticEE directory structure from one server to another. Do a clean install on the new server, then restore the .SQL backup using the SAM Server Utility.

# Technical Support

For questions or other support needs, visit the Student Achievement Manager Product Support website at: hmhco.com/sam/productsupport.
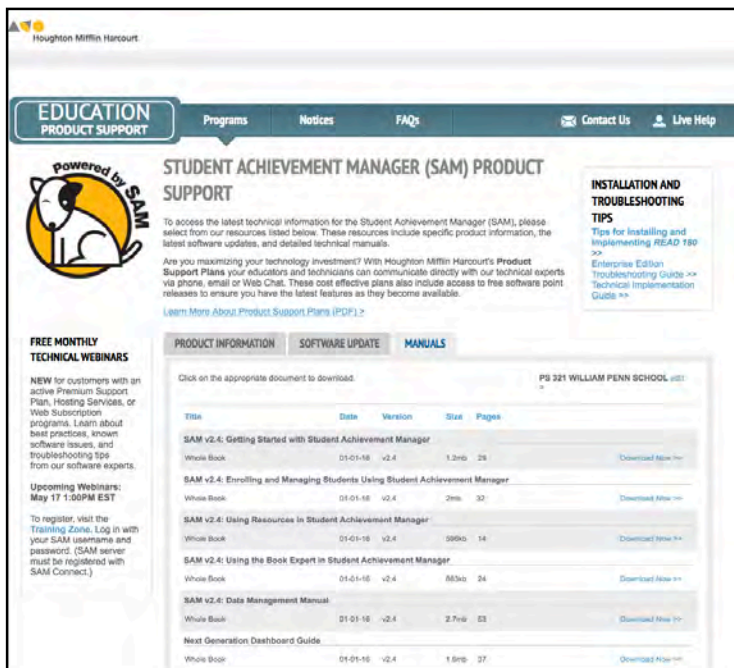


**Figure 19 SAM Product Support Website**

At the site, users will find program documentation, manuals, and guides, as well as Frequently Asked Questions and live chat support.

For specific questions regarding the SAM, contact customer service to speak to a representative at: 1-800-283-5974.

For specific questions about using SAM with SAM-based programs, click **Help** in the Quick Links section along the top of any screen in SAM.