



Horizons

Systems Integration Overview

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Welcome!

This document provides a high level overview of the different integration options available for Horizons provided by Symplicity. As the Horizons data model is customizable for each institution, this document serves as a guideline of different integration options to educate you on the various options available to you and guide you as you prepare your data to be integrated into the system. Symplicity offers clients the ability to purchase full editions of Horizons or only select modules of the program. Based on your contract and the modules purchased, some of the items listed in this document may cost you an additional fee. If you have any questions about what is included in your set up fee and contract, please contact your implementation specialist.

The various methods of integrating systems that we support include:

- Automated Import
- Web Service
- Manual Import

Data that we can migrate from your Student Information System are:

- Student Information
- Housing Information
- Student Pictures
- Student Schedules

In addition, we can integrate

- Legacy incidents (incidents from your old systems) and
- Calendar Synchronization

Authentication: We offer different authentication to Horizons, specifically through these methods:

- LDAP
- CAS

Shibboleth: We also have the capability to offer Shibboleth and/or custom. Both result in an additional set up fee and yearly maintenance fee.

Student Information System Integration

We can integrate data from your registrar system with

- Automated Import
- Web Service
- Manual Import

Automated Import

This is the most common way that institutions integrate data by sending a nightly, weekly, or monthly batch file that is automatically processed by Symplicity. Data files are uploaded/attached to our secured Extranet (<https://manager.simplicity.com>). Our developers will write a custom script to process the file for each school and make associated data model changes to ensure that fields are available within Horizons to store the data that an institution sends. Any changes made to the import file (addition of fields, changing the order of fields, etc) may result in an additional fee for us to change our import script. Symplicity will support an initial import of all student data one time. After the initial file, all other files will need to be delta files that only include data that has changed since the last import.

File Format

File can be sent to Symplicity as any structured text file, i.e. CSV (comma delimited), Text (tab delimited), XML, fixed length, pipe delimited. We **require** that you:

- Send file with Header Row
- Send an explanation of the header rows
- Send only the information you want imported (include any custom fields)
- Sample files are welcome
- If you have custom fields, please send us a list so they can be added to the system

Contents

At a minimum, Symplicity requires the following information:

- Unique Student ID/Username
- First Name
- Last Name
- E-mail Address
- On-Campus Hall and Room residence location (this can be sent in a separate file if needed)

After these fields, it is up to the IT Department and the Judicial Affairs/Housing offices to determine which fields are needed for reporting purposes. For example, if the requesting department requires the ability to run a report correlating number of incidents to gender, gender would need to be included in the file. The majority of Symplicity's clients also send some (or all) of the following fields:

Gender	Ethnicity	Major
GPA	Class Year	Minor
Home Address	Permanent Address	Student Athlete
Home Phone	Permanent Phone	

Method of Transfer

Protocol: SFTP/SCP, port 22 SSH protocol (Encrypted)

Authentication: Username/Password or Key Based Authentication

Note: A batch file can be transferred from your server to Symplicity's on a defined schedule using SFTP or SCP. For institutions sending the batch file from a Windows based host, Symplicity recommends using WinSCP (www.winscp.net). WinSCP has excellent scripting support available and is documented on the WinSCP web site.

Institutions sending the file from Linux or UNIX based hosts, can invoke the "scp" or "sftp" commands to transfer the file in a cron job.

Finally, Symplicity will require the IP address(es) of the server(s) that will be sending the file to allow us to open our firewall.

Web Service

For institutions with web services infrastructure, Symplicity can pull records via Web Services in real time. If a student is entered on an incident report, their information will be pulled via SOAP / XML web service.

Symplicity has numerous integrations using web services in production and can provide technical contacts at other participating institutions.

The data we pull through web services are:

- Student Information
- Housing Assignments
- Student Class Schedules

Note: Symplicity does not currently support updating student photos via web services.

To start the process, Symplicity will require:

- An initial batch file – if you want a stub record in the system (optional)
 - Student ID
 - First Name
 - Last Name
- A set of Test Unique IDs (for testing)
- Send WSDL or XSD (for mapping)
- URL Address of your server where data can be pulled from
- Username/password (for access) if you protect the server with authentication

If you choose to create stub records, Symplicity will support an initial import of all student data one time, and then an automated import of new and/or updated stub records to occur weekly or monthly.

Note: If there are several URLs, please send a table of the different URLs and what data is to be pulled from each. Please send this set up information to your implementation specialist.

Manual Import

We can import data files manually. Files are uploaded and sent on a scheduled basis to Symplicity as issues via our secured Extranet (<https://manager.simplicity.com>). The file format and data requirements are the same as described earlier. We can train a staff member with strong technical skills to import.

Housing Information System Integration

For housing information updating, we can do this three ways:

- Automated import
- Web services.
- Manual import

File Format

File can be sent to Symplicity on a scheduled basis outside of the Student Information System integration if needed as structured text file, i.e. CSV (comma delimited) and Text (tab delimited). Symplicity will require a header row on the file or a metadata document detailing the file layout.

Contents

Symplicity **requires** the following information:

- Student ID/Username
- Building/Hall name
- Building/Hall Code
- Room number where the student currently resides.

Method of Transfer

SFTP/SCP (Port 22 / SSH Protocol)

Student Pictures

This integration is optional. Student pictures can be sent on a less frequent schedule (once a month / semester) to allow staff members to review pictures of students prior to scheduling meetings with them within the Horizons application. Symplicity **requires** that:

- File name of the pictures must be student ID (jpg|gif|png)
- Pictures must be zipped up into a .zip archive

The file will be transferred via SFTP/SCP drop site and processed per your schedule.

Student Class Schedules

Horizons allows scheduling of meetings with students and to assist in optimizing the process, Horizons can display students' class schedules when a case adjudicator uses the software to schedule meetings. This is an optional integration and we can integrate student class schedules with:

- Automated import
- Web Services
- Manual import

The file will contain one row per class that the student is currently taking, and can be sent in text format that your system can generate. **We do not support multiple columns for Date and Time.** Symplicity **requires** a layout like the following:

Student ID	Course Name	Course Code	Start Time	End Time	Days Class Meets
123456789	Algebra	Math 005	1800	1915	MWF

Class days that are Thursday must be listed out as "R" and not T or TH.

Calendar Synchronization

Symplicity supports the Synchronization Markup Language (SyncML) mechanism for calendar synchronization with Horizons. If Horizons users utilize Outlook, they can sync their meetings scheduled with students into Outlook so that they can always keep up with those appointments without always logging into Horizons. The sync is one-way (from Horizons to Outlook).

Authentication

Lightweight Directory Access Protocol (LDAP)

Symplicity supports a number of mechanisms to facilitate authentication integration. The most common deployment is LDAP. LDAP is supported out of the box through a configurable control panel which allows the school to define the following attributes:

- Search Base
- Server URI (LDAPS STRONGLY RECOMMENDED)
- Bind DN
- Bind Password
- Username Attribute (i.e. SamAccountName, uid, mail, etc)

The Central Authentication Service (CAS)

Symplicity supports Central Authentication Services (<http://www.jasig.org/cas>) out of the box through a configurable set of control panel options. CAS will require a working authentication/validation server at the institution for the Horizons application to interface with. Our applications use the CAS 1.0 protocol, which is supported by both the 1.0 and 2.0 server versions.