



Med+Proctor Data Integrations

Introduction

Med+Proctor makes the data we collect about your student population available for export in a few different ways. You can use data you export from Med+Proctor in any way you like - as on-going reports for front-end processes, as a seasonal data dump, as part of annual immunization compliance reporting, or as part of a real-time integration with your own ERP, EHR, or other software. We make the data available to you in many ways so that you can use it quickly and easily.

Currently Med+Proctor offers the following ways to export data:

- Admin Dashboard Reports
- File transfer service over SFTP
- A RESTful API
- A GraphQL server
- RESTful integration with Ellucian Ethos for Colleague

Admin Dashboard Reports

<https://secure.medproctor.com> makes a large list of reports available for view and download in the admin dashboard. You can download the available reports in an Excel or csv file format. You will need access to the admin dashboard at <https://secure.medproctor.com> to view and download these reports. If you need a report that you do not see in the list, then contact support and we will help you get access to the report you need.

File transfer service over SFTP

Med+Proctor will transfer any of our dashboard reports by SFTP to a location of your choice. If you do not have a directory accessible by SFTP to which we can send reports, then we can make one for you at sftp.medproctor.com

Authenticating to our remote SFTP directory

If Med+Proctor is creating a remote SFTP directory for you then you will need to authenticate to it to retrieve your files. The Med+Proctor software does not support password authentication for SFTP connections to your remote directory. We will need a public SSH key from a key pair to issue you a remote directory and SFTP user account. You must use RSA 2048 for your SSH key pair.



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Remote SFTP Directory Structure

Your remote home directory has a structure like

- /your_home_dir
 - /inbound
 - /outbound

Connection details to your local directory

If you are providing your own directory for us to put files to, then Med+Proctor will need connection details for the directory. We can connect to your directory by SFTP using either password or SSHkey authentication. Your directory structure does not need a certain format. We only need the location where we should write files.

Processing inbound files (inviting students to Med+Proctor)

If you would like to use the file transfer service to process invites, then you must use the Med+Proctor provided remote directory.

Files that you upload to the /inbound directory must meet these requirements to be processed by us.

- UTF-8 encoded entries.
- RFC 4180 formatted CSV (comma-separated values)
- Use a comma as a value delimiter.
- Use a new line as a row delimiter.
- Has a header row.
- Use a .csv extension at the end of the filename

Note: It is highly advisable to wrap text-based columns with quotes. If a value has a comma, it will cause a failure when processing the record.

Column Description

- Username – a unique username that your student will use to login. An email address works best. Then we can contact your student with helpful reminders. **Required**
- StudentId – A unique alphanumeric; a “Student ID”. The ability to edit this value can be optionally disabled for your student end-user.
- LastName – A string of the student’s surname
- FirstName – A string of the student’s given name
- Telephone – A telephone number
- Dob – MM/DD/YYYY formatted date of birth. Other formats will be rejected.
- RequirementGroup and Term – A string value indicating to which configurable group the student belongs. **Both values are required to be processed.** If one is missing, then the other will be skipped. Ask support for a list of RequirementGroups and Terms.



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- OnCampus – an integer, 0 or 1, indicating true or false where 0 is false and 1 is true. Is the student an on-campus resident? May be used to drive some immunization requirements. Ask support if this applies to your population's requirements.
- Email – Optional. A string value that will be used for the email address regardless of the username.
- Program – Optional. A string representing the program enrolled, such as "Nursing"
- Country – Optional. The two or three letter ISO code of the birth country
- Campus – Optional. The campus the student is attending.
- RegisteredHours – Optional. The credit hours of the student.

Once processing begins on your uploaded file the filename will have an extension of

```
.<session id>.processing
```

appended to the original filename.

When completed the extension will be

```
.<session id>.completed
```

If there is an error, it will be

```
.<session id>.error
```

Inbound file service limits

Identical files cannot be dropped in succession. If so, then access will be suspended until this issue is remedied.

Outbound files (reporting)

Med+Proctor can transfer a report of any data we collect in any plaintext format over SFTP to our own hosted remote directory for you or one of your own. To get started we need to know if

- you want to use your own directory open to SFTP connections from our SFTP client
- or if you would like to connect via SFTP to a remote directory that we create for you.

We will work with you to configure the report content, format, and when we will deliver it. We can deliver most reports with a frequency of every 5 minutes. Delta reporting (reporting on newly processed students) is available in some cases.



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RESTful API

A RESTful API (application programming interface) allows developers to access real-time Med+Proctor data from web service endpoints in some convenient industry standards. This service is highly configurable so let us know if you need an endpoint to match your existing workflows. Developers can request access to the API management portal from support. There they can view documentation, examples, and try out endpoints in a sandbox environment.

GraphQL Server

A GraphQL server allows developers to access real-time reporting data from Med+Proctor and query only the data fields they need in the format they need it. GraphQL offers a powerful way for you developers to assemble their own reports from Med+Proctor data. Access to the GraphQL server is managed through support. Ask for integrator permissions on Med+Proctor accounts for interested developers. The graph server is available at graph.medproctor.com. Ask support for a schema of the /student graph. It has all of the data points we collect for student users in pages results.

RESTful Integration with Ellucian Ethos

We have written successful integrations with Ellucian Ethos. If you have Ellucian Ethos, then we may be able to provide a convenient PowerShell module that removes holds from Person objects in Colleague or Banner for compliant Med+Proctor accounts. The module does not perform any other actions in Ethos currently. Ask support for a zip file of the PowerShell 5.1 module.



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FAQs

- Does sftp.medproctor.com have a static IP?
 - Yes. It is 3.214.79.35
- Does the outbound file transfer service have a static IP?
 - Yes. It is 23.96.210.47, 23.96.189.140, and 23.96.189.141
- Can you process inbound files from another directory (not sftp.medproctor.com)?
 - No. Only sftp.medproctor.com can be used to process inbound files (invite students by file transfer)
- How large can inbound files be and how long do they take to process?
 - Files uploaded to /inbound will not be processed after 50k rows. A 20k user upload as a load test processes in an average of 23 minutes.
- How safe is file transfer and how safe is storage of files at sftp.medproctor.com?
 - Data is encrypted and signed in transit by ssh using a 2048-bit RSA key. Assuming you have properly secured your private key then connecting and transmitting data to MP by SFTP is very secure. When stored in your home directory data is encrypted using a different key pair, 256 bits in length, and protected by a FIPS 140-2 validated HSM. Access control to your storage encryption key is limited to your SSH user and the MP services handling your files. Encryption and SSH keys can be rotated upon request or in case of a security event.
- What data fields are required in an inbound file?
 - An email address, and some Student ID (unique identifier) is required at the minimum.