

Using the AppScan Scoring Machine

Fifteen Apperson Advantage 1200 (AppScan) scoring machines are currently available on campus.

Most of the AppScan machines are associated with an academic department; however, there will be at least one open-access AppScan scoring machine available either for non-academic departments or if other AppScan machines are occupied.

For details regarding the supplies you will need for testing, please refer to the Appendix on page 10. There is a separate Help Page for current AppScan locations.

Getting Started

This guide will walk you through the following:

- An orientation to the AppScan display panel and buttons
- Understanding the DataLink software toolbar
- Importing and refreshing the student database
- Scoring exams and handling missing/incorrect information
- Running common reports using the DataLink software
- Basic trouble-shooting

Hints for Test Takers

- Use a #2 pencil; the AppScan will not read ink pen.
- There are 9 spaces for the CU 7-digit ID. AppScan will process student ID numbers that are left-justified or right-justified 7-digit numbers; however, AppScan cannot process 9-digit numbers (e.g., no leading or trailing zeroes)
- The AppScan will reject bent forms.
- If any marks are made in the timing mark area, the AppScan may have difficulty scoring the exam (this is true of any erasures as well.)
- The AppScan scoring machine is very sensitive. Make sure to erase thoroughly.

Hint:

Student ID numbers are required if the data will be exported to Micrograde, Excel, or Moodle.

To learn about general **AppScan Machine Features**, continue reading.

AppScan Machine Features

The AppScan scoring machine may be operated without a computer if you do not require detailed analysis or printed reports. This method doesn't require student ID numbers.

The AppScan machine has a display window and three buttons.

Display Window

- Displays current scoring status, each student's score, and any error messages (e.g., **PAPER SKEW**, **ID number error**, etc.) as exam sheets are fed through.
- Displays simple statistics when used in conjunction with the **[Summary Display]** button described below.

Reset Options Button

- Can work as a **Clear results** function. Continue to press until the **Ready** message appears, and then run your key through. Unplugging the machine temporarily will also clear the AppScan.
- This button toggles between **Ready**, which is the default scoring mode, and **Rescore**, which produces the same results as if you marked the **[RESCORE]** bubble on your key.
- **Data Collection** mode is designed for ballots and surveys, a rare choice for CU faculty or staff to use since they conduct most student surveys and elections through the web.

Summary Display Button

- When the machine is in **Ready** mode, pressing this button will give machine ID information and maintenance counts.
(For specific information regarding regular maintenance and repairs, refer to the Appendix at the end of this handout)
- After running all of the student exams through the machine, pressing this button will display the class average (number and percent) and the number of graded exams in the display window.
- Pressing this button a second time will return simple statistics about the number and percent of students who chose the wrong answer for each question.

Next Display Button

- Use this button in conjunction with the **[Summary Display]** button to move from question to question.

To learn how to **Prepare to Score Exams**, continue reading.

Preparing to Score Exams

Marking the Key

The exam key should always be the first test sheet processed by the AppScan machine. You should mark a bubble for each correct answer.

There are three scoring options available when marking the exam key.

Key

Mark the **[KEY]** bubble the first time you grade the exams. Before running any student exams, always verify that the key has processed correctly by referring to the AppScan display window or DataLink window.

The correct answers will print next to each question on the key sheet and the number of answers read will appear in the display window (e.g., **Keyed 25**) and on the DataLink window.

Any incorrect answers will be marked with a red line "|" on the student answer sheet and highlighted in **yellow** on the DataLink window.

The student's score (# correct and percent correct) will be printed in the **SCORE** box on the exam sheet and on the DataLink window.

Verify

If you also mark the **[VERIFY]** bubble on the key form, the correct answer will be printed in red next to any incorrect answers on the student's exam sheet.

You will receive the error message **Key Required** in the AppScan display window if you mark **[VERIFY]** and do not also mark the **[KEY]** bubble.

Rescore

If you find an error on your answer key, you may correct the answer key and then mark the **[RESCORE]** bubble.

Run the key and the student answer sheets through the AppScan a second time. The verify function is automatically turned on, and the revised score will print in the **RESCORE** box on the student's answer sheet.

To learn about **DataLink Software**, continue reading.

DataLink Software

DataLink software allows you to save student scores, update student name/ID data on the fly, modify your key, access more sophisticated statistics, and produce and save reports.

Note:

Collecting student ID numbers is required in order to use the DataLink software and features.

Software Installation

The DataLink software should have automatically been installed on any computer connected to an AppScan scoring machine.

If you would like the DataLink software installed on your office computer so that you can view DataLink reports and saved files at a later time, submit an online computer service request (www.cedarville.edu/csr), and a technician will assist you.

Launching the Software

It is recommended that you close any other open software programs before initiating the DataLink Software.

To launch DataLink:

1. Click on the Windows Start button > Choose **All Programs** > Choose **Apperson**.
2. Choose **DataLink Connect** > Click **DataLink Connect** a second time.

Note:

*If **Apperson Education Products** does not show up in your program list, the DataLink software has not been installed on the computer you are using.*

Please submit an online computer service request www.cedarville.edu/csr to request installation of the DataLink software.

Student Database

A file containing the entire student database is available at

J:\Support\AppScan Database\STUDENTS.csv

The original file on the J: drive is refreshed automatically every weekend. Because the entire student database will be downloaded and available to you during scoring, you no longer need to import a class roster from CedarInfo.

Importing/Refreshing the Database

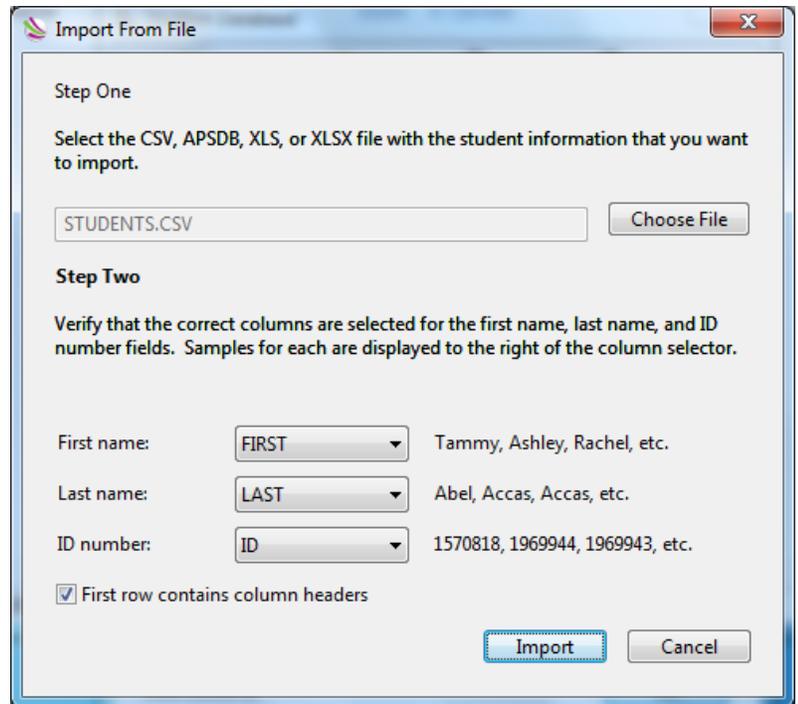
You will want to manually import the student database the **first** time you use the AppScan scoring machine and refresh it frequently from then on. This is to keep it updated and lessen the number of manual entries you will need to make.

To refresh the student database for use with the AppScan scoring machine and DataLink software:

1. Navigate to the Windows Start button > "All Programs" > "Apperson" > "Datalink Connect" > "Datalink Connect."
2. Click the "File" menu.
3. Click [Student Database].
4. Click [Import Students].
5. From the Step 1 section of the window, click "Choose File."
6. Navigate to the folder that contains your class file (J:/*department*).



7. Select the desired file.
8. Click [Open].
9. From the Step 2 section, use the drop-down arrows to associate the **FIRST, LAST, ID** columns with Students' First Name, Last Name, and ID Number.
10. Check "First row contains column headings."
11. Click [Import].
12. Wait for the import to process; note the green import progress bar (the current student database will fill the screen).
13. Click on the heading to sort the student database to verify your additions.
14. Click [**X**] to close the database.



Score the Exams

1. Make sure the AppScan machine is connected (look for a green box with an "A" in the lower left corner of the DataLink window).
Otherwise, refer to the trouble-shooting section at the end of this handout for AppScan connection tips.
2. Verify that the answer key form has been marked as such and use a number 2 pencil to fill in the **[Key]** bubble in the keyline.
3. Feed the key through the AppScan machine (side 1 facing up, timing marks down, feeds right-to-left).
4. Check the answer key form to make sure it is scored with the total number of questions as correct.
 - Correct answers should display in the top light blue bar of the DataLink window.
 - Correct answers should print on the answer key form.
 - The number of questions scored should be listed in the AppScan display window (e.g., **Keyed 25**).
5. Begin scoring the student exams. If you receive any form-feed error messages in the AppScan display window (e.g., **Timing Marks not Detected**, or **Paper Skewed...**), reposition the form correctly and resubmit.
6. When an exam is scored successfully, the student ID # followed by the answers given will be displayed in the DataLink window.

The AppScan display window will indicate how many questions the student answered correctly and how many test forms have been scored.

- Correct answers have a white background
- Incorrect answers (including questions left blank) will display in **yellow** in the DataLink window
- Multiple marks will display as two letters (e.g., **AE**)

For those who prefer, exams may be scored using the AppScan and the grades entered manually in a grading program without capturing the data on the computer.

An Unreadable or Missing Student ID

1. If **ID verification is turned ON**, you will not be permitted to scan a test form with a missing or invalid ID (it **will** accept any CU ID, so double check that the IDs match the names).

The AppScan will display the message **PC Rejected ID Number**. In this case, you will want to look up the student, correct the ID number, and resubmit the exam.

2. If **ID verification is turned OFF**, you will want to watch the DataLink window closely for incorrect and missing ID numbers.
 - a. If an ID number has not been bubbled in, or the AppScan can scan the ID number but cannot associate it with a student in the database, the Name or ID fields will be left blank and highlighted in aqua blue.
 - Click [**Student Database**] to look up students and their ID numbers.
 - Right-click the **recorded ID number** to the left of the student score > Choose "**Edit Student ID**" > Type in the correct **ID number**.
 - The student name should fill in automatically.
 - b. If you enter the correct ID number but the name field is still blank, perhaps you have not recently updated the student database file. You will want to double-check the ID number and then manually update the name.
 - Right-click the **recorded ID number** to the left of the student score > Choose "**Edit Student Name for ID#**" > Type in the correct first and last names.

Saving your data

Save your data when you are finished scoring exams by doing the following:

1. Click on "**File**" > Choose "**Save**" (or [Ctrl + S])
1. Navigate to a network drive (either H: or J:) and save the data using a file name that will easily identify the term, class, section, and test (e.g., 12SP MIS2200-01 Test2).

AppScan Reports

Two reports are available as soon as the exam has been scored for viewing in the DataLink window.

1. *Class Roster* – lists the test scores for each student.
2. *Item Analysis* – a more detailed analysis of the student responses by question.

More extensive reports are available when you export complete test results to Microsoft Excel (see instructions on next page).

Preview or Print Reports

From the DataLink toolbar

- Choose **"Reports."**

Delayed Viewing - Data and Reports

Install DataLink

If you wish to review student score data and reports in your office, you will want to submit an online computer service request www.cedarville.edu/csr to request installation of the DataLink software on your office machine.

To comply with our license agreement, the DataLink software may only be installed on computers in buildings that contain an AppScan machine (refer to Appendix on page 8 for current locations).

View Saved Files

Open the DataLink software on your office computer. From the top toolbar,

1. Choose **"File"** > choose **"Open Saved Session"**
2. Navigate to the location where you saved the DataLink class file; click to select the file.
3. Click **[Open]**.

To learn how to **Export Student Scores**, continue reading.

Export Student Scores

You can export your file using one or more of the following options.

Microsoft Excel (includes detailed analyses)

From within the DataLink program,

1. Click **Excel Export** > Choose **Full Report** (you may choose a different option from the list if you wish). Wait while the file exports.

Please view the separate handout for information on interpreting the statistics generated by DataLink.

Micrograde File

The first time you choose the gradebook transfer function, you may need to choose your gradebook software. From within the DataLink program,

1. Choose **Scanner Results** > choose **Gradebook Transfer**.
2. Locate **Micrograde** in the list > Highlight **Micrograde** > Click **[OK]**.
3. **Save** your file with a unique name.

After the initial setup, you will be able to click the **Gradebook Export** button .

To import test scores from DataLink, follow these directions:

1. Open **Micrograde** > Choose **Scores** from the top menu bar.
2. Choose **Import Scores** > Choose **User Defined...**
3. Select the Exam/Quiz that you want to import scores for from the list > Click **[OK]**.
4. Navigate to the AppScan scores text file location > Choose the .txt file > Click **[Open]**.
5. Select the first line that contains an ID# and score > Click **[Continue...]**.
6. Click the first student ID# > Choose **ID** from the **Import Fields:** drop-down list.
7. Match the score in the same way > Click **[OK]**.
8. Click **[OK]** again > Click **[Finished]**.

GradeGuide File

There is not a Gradebook option listed within the DataLink program; however, you may be able to use one of the CQ or CSV file types to export the data. Please contact information technology at 937-766-7905 if you wish to pursue this option.

Moodle

For instructions for exporting student scores directly to Moodle from DataLink, see the following computer help page: [Moodle: Import Scores from DataLink \(Faculty\)](#).

Exit

Make sure to exit the DataLink program and log off the computer before leaving the AppScan grading area.

Take all keys, exams, and other supplies with you.

(The appendix begins on the next page.)

Supplies

Test Forms

AppScan scoring forms are available from your department contact or directly from information technology (Tyler 122).

Four types of Apperson brand test forms are available:

Quiz sheets (15 questions) Form #15 AS

Quiz sheets (25 questions) Form #25 AS

Exam sheets (100 questions + essay) Form #100 AS

Exam sheets (200 questions) Form #200 AS

Test forms are provided by information technology at no direct charge to your department. Because the forms cost between \$25-40 per package, you are asked to sign for the forms and limit quantities to two packages at a time.

Maintenance

Information technology technicians are able to correct most maintenance issues on the AppScan machine. We also keep a spare AppScan machine on hand in the unlikely event that your machine requires extensive repairs. Information technology can also relocate your AppScan unit from its current location.

If your AppScan needs maintenance or you would like to relocate it, please submit an online computer service request www.cedarville.edu/csr.

Ink Cartridges

Each AppScan machine requires two red inkjet print cartridges (HP #C6602R) to operate correctly.

If the ink appears light on your exams or begins to leak or smear, please submit an online computer service request, and a technician will replace the cartridge on your AppScan machine.

Calibration

Pressing the **Summary Display** button on the AppScan machine when it is in **Ready mode** will display how many scans have occurred since the last calibration or the last maintenance.

Every 500-3000 scans (or at least once per year), your AppScan machine will need to be re-calibrated. A **READY: RECOMMEND CALIBRATION SOON** message will display in the AppScan display window when calibration is needed. This message may also appear if the ink cartridge has been repositioned or replaced. If this message appears, please submit a computer service request.

Troubleshooting

Scanner Not Detected

A green button and the message **Scanner Connected** should appear in the lower left of your screen. If you receive the message **Scanner Disconnected**, complete the following steps:

1. Check the cord connections to make sure everything is plugged in correctly.
2. Within DataLink, Choose **Scanner** > Choose **Find Scanner**.
3. Unplug the AppScan from the computer > Shut down the computer > Plug in the AppScan > Restart the computer.
4. Submit an online computer service request if the above steps do not resolve the issue.

Marks Not Detected

Students should use a number 2 pencil to completely blacken the answer sheet. Adjust the sensitivity of the scanner under **Scanner > Scanner Settings** within DataLink.

Irregular Test Scoring

If you notice any irregularities in scoring, submit an online computer service request to have the sensors cleaned and the AppScan machine calibrated.

Paper, Dust and Erasures

Accumulation of one or all of the above can affect the AppScan sensors, block the form feed path, and cause irregular test scoring. Please use the plastic dustcover when your AppScan unit is not in use to prevent dust, paper debris, and erasures from interfering with the machine. If you encounter a problem, you should submit a computer service request.

Questions?

Please contact information technology at 937-766-7905 with any additional questions that arise as you familiarize yourself with the AppScan forms and scoring machines. We are here to help!