Quick start guide to submitting data files to Integrity

http://integrity.castlerockresearch.com
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Integrity requires users like you to submit a key file and a data file in order to analyze your assessments. Below we describe what key files and data files are and how to submit them to Integrity.

What is a key file?

It is a text file that contains the answer key for a test submitted to Integrity. Each answer, given as a number value, is separated by a comma. For example, if the answers for a particular test are: A, C, B, A, D, D, A, C, B, A, then the answer key file will contain the corresponding values: 1,3,2,1,4,4,1,3,2,1.

The FAQ section (question 11) within the Integrity web site has an example key file available for download.

What is a data file?

A data file is an electronic file that contains the answers of examinees for a particular test. Typically, a data file is produced by optical scanners (e.g., Optical Mark Recognition OMR, Optical Character Recognition OCR, Scantron machines, etc.) that process "bubble sheets" onto which examinees have recorded their answers. Most scanner operators have no problem accommodating the data file needs of Integrity.

Integrity requires a simple text-based data format (i.e., comma-separated ASCII). Each examinee should be entered on a separate row, as follows:

➢ Examinee identification in the first field, followed by a comma.
   Examinee identification can be a number, a name, or a combination of characters. Identifiers are limited to 128 characters and cannot include commas (e.g., do not use "Jones, Jane" as an examinee identifier, instead use "Jane Jones" or "Jones Jane"). Completion of this field is mandatory.

➢ Writing center code in the second position, followed by a comma.
   This code can be numerical, textual, or a combination (e.g., "Morning session 101A"). Completion of this field is optional.

➢ Group code in the third position, followed by a comma.

This code can be numerical, textual, or a combination (e.g., "Males," "Females," "Mature students," "Out of country students"). Completion of this field is optional.

➢ Examinee's answers in the fourth and subsequent positions, each separated by a comma.

This code must be numerical, and only values of 1 to 9 can be used. Integrity requires that item responses start at a value of "1" and continue up to "9" (A= 1,B=2,…H=8, I=9). Integrity considers a value of "0" to be no response; as such, users must not use 0 values as item responses (e.g., for a true/false item, the values "1" and "2" must be used rather than "0" and "1"). Completion of this field is mandatory.

Below is an example of the content of a data file, with optional writing center and group code information, for three students who each took a ten-item test:

Examinee ID 1,Writing center 1,Group A,2,1,3,1,1,2,2,4,1,2
Examinee ID 2,Writing center 1,Group A,1,3,2,4,2,4,3,1,2,4
Examinee ID 3,Writing center 3,Group A,3,4,4,2,3,1,2,3,2,4

Below is an example of the content of a data file, with optional writing center code information, for three students who each took a ten-item test:

Examinee ID 1,Writing center 1,3,4,3,1,1,2,2,4,1,1
Examinee ID 2,Writing center 2,2,3,2,4,2,4,3,1,2,2
Examinee ID 3,Writing center 1,3,4,4,2,3,1,2,3,2,2

Below is an example of the content of a data file, with NO optional writing center or group code information, for three students who each took a ten-item test:

Examinee ID 1,4,4,3,1,3,2,2,4,1,4
Examinee ID 2,4,3,2,4,1,4,3,1,2,4
Examinee ID 3,4,4,4,2,2,1,2,3,2,4

The FAQ section of the Integrity web site has an example data file available for download.

An example of how to submit assessments to Integrity

Professor Jones teaches three classes of introductory psychology at a local college and administers multiple-choice tests regularly to his students. He is interested in evaluating and improving the quality of his assessments, so he purchased a single-user license for Integrity.

A few weeks before administering a midterm exam to his students, he spoke with the scanning (bubble-sheet processing) department at his college. The professor wanted to administer the same 80 item multiple-choice midterm to all three of his classes. Professor Jones showed the scanning technicians the data file requirements for Integrity (see the FAQ section off the Integrity web site) and was assured that they would produce a data file for him when he submitted his bubble sheets for scanning. Professor Jones was interested in comparing how each of his classes would perform on the midterm, so he asked the scanner operator to set up an area on the bubble sheets where students would mark what class they were in. He was also interested in how male and female students performed on his midterm, so he asked the scanner operator to set up an area on the bubble sheet for students to fill in their gender as well.

On the day of the midterm, the professor asked his students to fill in the two areas on the bubble sheet to indicate their class and their gender. The students then took the test as they normally would. When all three of the professor's classes had taken the midterm, he took the bubble sheets to the scanning department for processing. The scanner operators scanned all the bubble sheets and produced a data file that corresponded with the example data file on the Integrity web site. The scanner operator sent a data file called "psych101_test.dat" to the professor via the college's secure email system. The professor then created an answer key file called "psych101_key.dat" and logged into the Integrity web site.

Once logged into the secure Integrity web site, the professor clicked on the "Add a job" button in order to submit the midterm exam results for his classes. He gave the job the name "Jones psych midterm" and attached the data and the answer key file (see Figure 1 to see an example). He then followed the step-by-step wizard, answering a few simple questions about his test (e.g., how many questions are there), and finished submitting his assessment. In under a minute, the reports for his test were completed and he began looking over the results. As a first-time user, Professor Jones felt that he needed some support in interpreting the reports, so he went into the "Knowledge base" section of Integrity and found a number of useful guides that walked him through how to interpret his results. Professor Jones found a few items that were not performing as well as he would have liked, so he revised those items so that he could administer the improved version of the test next semester.

Figure 1. Professor Jones submitting his midterm exam to Integrity.