

# **ConstructMap v4.4.0**

## **Quick Start Guide**

Release date 9/29/08

Document updated 12/10/08

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ConstructMap v4.4.0 Quick Start Guide  
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## Introduction

ConstructMap is a graphical, menu-driven software package combining a multidimensional IRT engine for estimating item and person parameters with tools for managing cross-sectional and longitudinal response data. The program provides a number of report options for interpreting the data at several levels of aggregation. Graphical maps and reports are designed for use in settings in which respondent progress on multiple measures can be examined and analyzed. Users can select expected a posteriori (EAP), maximum likelihood, or plausible value estimates of multivariate student proficiency. ConstructMap accepts dichotomous, rating scale, or partial credit items in between-item (each response is an indicator of a single dimension) or within-item (a response may be an indicator of multiple dimensions) multidimensional models.

ConstructMap produces Wright maps that align person estimates with item estimates on a logit scale, and item characteristic and cumulative probability curves. It estimates item parameters using marginal maximum likelihood techniques. Integrals are approximated using either a Gaussian quadrature method or a Monte Carlo method (user-selected), with user-defined number of nodes and upper and lower bounds of the latent traits. Users may also define convergence criteria and iteration limits. Differential item functioning and item bias can be explored by partitioning the response data on user-defined grouping criteria. ConstructMap produces traditional item-analysis statistics, as well as item response modeling fit statistics.

## Installing ConstructMap

1. Download ConstructMap from <http://bearcenter.berkeley.edu/GradeMap>. Both Windows and Mac versions are available.
2. Windows users should run the `cm44_init.exe` program to automatically install ConstructMap, the demonstration files, and the most recent release of Java onto your computer (if you know your computer already has Java 2 installed, you can run `cm44_update.exe` instead).
3. Mac users should launch `cm44_mac.exe`. You may refer to <http://www.apple.com/support/downloads/javaformacosx105update2.html> for more information about ensuring that you have the latest version of Java available on your system.
4. Selecting the defaults will install the complete system and place a shortcut on your desktop and in the Start Menu folder. The system is installed to `c:\Program Files\ConstructMap44` on Windows systems and placed in a new ConstructMap44 folder on the desktop on Mac systems.

## Starting ConstructMap

1. Start the program by launching **ConstructMap44** from the Desktop (double-click on the ConstructMap44 icon). Mac users should be able to also locate ConstructMap in the Applications folder.
2. When prompted, enter “admin” as your user name and “bear” as your password, and then press **OK**.

## Using the Demos

Five demonstration projects are included with ConstructMap: Example 1 is a unidimensional dichotomous model, Example 2 is a unidimensional partial credit model, Example 3 is a unidimensional rating scale model, Example 4 is a two-dimensional dichotomous model, and the SEPUP Demo is a two-dimensional rating scale model with longitudinal data (i.e., it includes several assessment instruments). The projects include all of the population and item parameters to specify the models and are populated with student data. They can be used to try out the charts, maps and other features of ConstructMap.

1. Select the **Help – Demo Projects** menu option and highlight the demo project you would like to try. To see maps and ability reports, the *SEPUP Demo* project might be the most interesting. To try item calibrating and see fit statistics, one of the unidimensional projects, such as *Ex2-Partial Credit*, would be appropriate.
2. Select **File – Save** to make the project available the next time you start ConstructMap.

### Defining Item Sets

ConstructMap uses Item Sets to differentiate time points for administrations of different assessments. Item Sets can be thought of as containers used to collect items that belong to a particular instrument, or to collect several instruments together for reporting purposes.

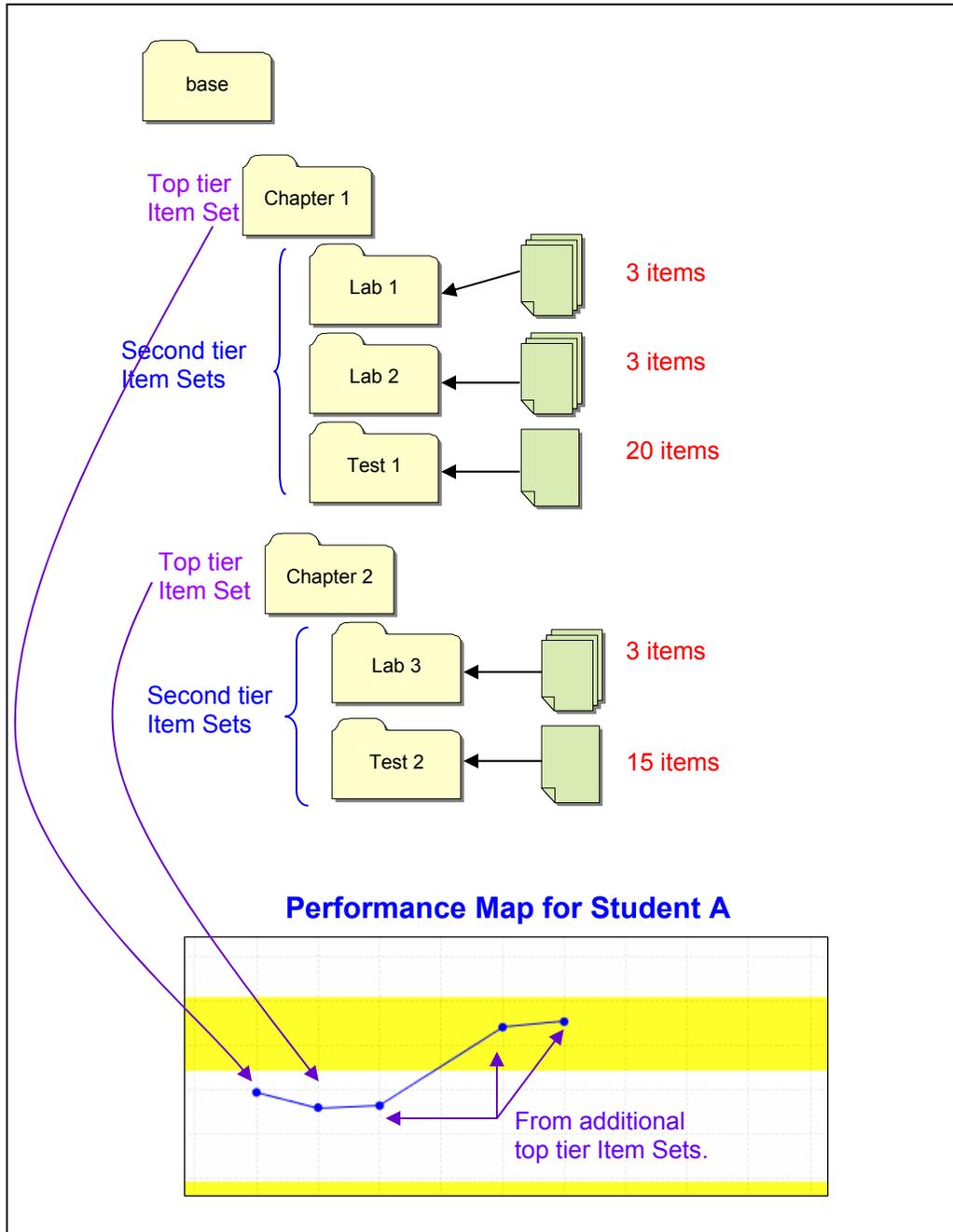


Figure 1. Sample Item Sets and their relationship to Performance Mapping.

As shown in Figure 1, top tier Item Sets (those directly under “base”) define time points, and all items and Item Sets within them are considered as though administered at about the same time. In a classroom setting, for example, these top tier Item Sets can be used to identify chapters, modules or other large instructional segments of a curriculum. Instructionally, it should make sense to examine student change from one Item Set time point to another.

ConstructMap uses top tier Item Sets to define the points in the Performance Map. Using the Item Set structure shown in Figure 1, ConstructMap would generate a proficiency estimate using items from Lab 1, Lab 2, and Test 1 for the first time point and an estimate using items from Lab 3 and Test 2 for the second time point. The remaining points on the map are for additional top tier Item Sets.

Second tier Item Sets (and lower tiers) are intended to group items into sets that are could be considered one “assessment”, such as a test, a lab activity, or a research project. These are collections on which a teacher may want to examine student performance as a whole. ConstructMap uses second tier Item Sets to define the columns in the Activity Averaging Map. As shown in Figure 2, ConstructMap would include items from Lab 1 as the first activity, items from Lab 2 as the second activity, items from Test 1 as the third activity, and so on.

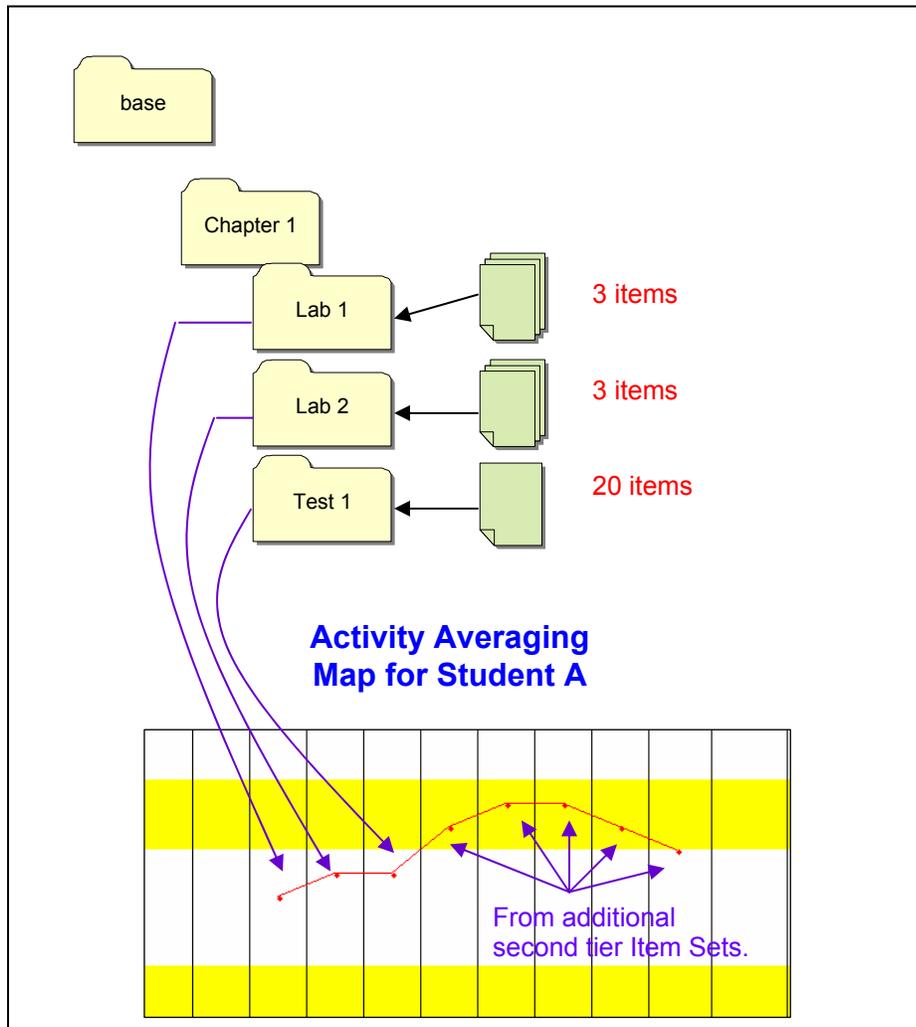


Figure 2. Sample Item Set and its relationship to Activity Mapping.

Users can define more layers of Item Sets, and ConstructMap accommodates user selection of specific Item Sets for most reports. Users can also change the term “Item Set” to something more suitable to their purpose, such as “Instrument” or “Time Period,” by using the **Reports – Report Options** menu selection.

In some cases, users may not have longitudinal assessment data and may simply use the default “base” Item Set or define a single top tier Item Set with no second tiers. The demonstration projects have pre-defined Item Sets.

### Generating Reports and Maps

Detailed descriptions of the reports and ways to modify their settings are included in the *User Guide*, which is available online at <http://bearcenter.berkeley.edu/GradeMap>. The following list is a brief overview of the most commonly used ConstructMap reports and features. You may want to use the *SEPUP Demo* project to explore the **Group Reports** and **Individual Reports** and the *Ex2-Partial Credit* demo to explore the **Item Reports**, **Estimation Options**, and **Model Settings**.

#### Report Options

The following functions begin at **Reports**:

Filter Students for Reporting	User selects any number of demographic fields with which to select cases. These cases will be the only cases used to produce reports, estimates, etc. in subsequent menu selections. The filtering criteria appear in the status line at the bottom of the display of cases on the screen and in the title area of reports.
Report Options	Defines the way reports should look. Set Project Title, the maximum and minimum scale (by default these are the maximum and minimum of the logit range, but user can set any scale), and alternative names for the default “Student” and “Item Set” terms. Users may prefer terms such as “Case” and “Instrument,” for example.

#### Reports on Groups of Students

The following reports all begin at **Reports – Group Reports**:

Frequency Map	Frequency distribution of proficiency levels for all cases on the selected instrument(s) <sup>1</sup> ; one chart per variable. Shows counts or percentages.
Performance Map	Shows one point for each top tier Item Set (usually a series of assessment instruments within an instructional module); a separate map is generated for each variable. Shows longitudinal data when multiple top tier Item Sets exist. Each point is the average for the selected group of cases.
Ability Estimates Report (by level, with fit statistics)	Shows ability estimate(s) and standard error(s) for each person on the selected instrument(s). All variables shown on one report. Estimates and errors shown in user-defined scaling as an alternative to logit values.

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<sup>1</sup> An “instrument” usually refers to a specific Item Set. See the *Defining Item Sets* section for more information.

Correlate Groups Report	Shows correlations between raw scores, ability estimates, and user-selected demographic categories. Includes all items from the user-selected instrument(s).
Correlate Forms (equal to Alternate Forms Reliability)	Shows correlations between proficiency estimates for similar cases on different instruments.

### Reports on Individual Students

The following reports all begin at **Reports – Individual Reports**:

Profile Map	Shows ability levels on each dimension on one chart. User selects instrument(s). User must define Criterion Zones prior to requesting a Profile Map (see <i>Model Settings</i> below).
Performance Map	Shows one point for each top tier Item Set (usually a series of assessment instruments within an instructional module); a separate map is generated for each variable. Shows longitudinal data when multiple top tier Item Sets exist.
Activity Averaging Map	Shows one point for each second tier Item Set (usually a single instrument); a separate map is generated for each variable. Estimates are computed from items on the current second tier Item Set and the preceding two sets. Shows longitudinal data when multiple top tier Item Sets exist.
Item Tracking Map	Graphical representation of all items completed, score attained, and expected score for the person; a separate graphic is generated for each variable. Shows ability estimate for user-selected instrument(s).
Diagnostic Map	Shows scores person attained and did not attain in a format similar to a Wright Map. Helps the user identify unexpected performance on individual items. Estimates are based on instrument(s) selected by user.
Graphical Diagnostic Map	Graphical representation of Kid Map data. User selects colors to indicate sectors on the map for the respondent's location range and unexpected response ranges.
Responses Report	Shows overall ability estimates and fit statistics for the selected instrument(s), and responses on each item for the instrument(s).

### Item Reports

The following reports all begin at **Reports – Item Reports:**

Wright Map	Frequency distribution of selected cases against item difficulties on the selected instrument(s) along a logit scale; one chart per variable. Items, steps, and Thurstonian thresholds are displayed.
Graphical Wright Map	Frequency distribution of selected cases against Thurstonian thresholds on the selected instrument along a logit scale; one chart per variable. A separate column is provided for each item, with all Thurstonian thresholds for that item shown in the column. May include criterion zones if they are defined.
Item Estimates and Fit Graph	Shows item parameter estimates, errors, infit and t-statistics, and a graph showing the weighted mean squares (infits) for each item for unidimensional models.
Classical Item Statistics	Shows counts, percentages, point biserial, average ability and standard deviations of abilities for each category on each item. Also displays item parameter estimates, Thurstonian thresholds, and fit statistics for each item.
Fit Graph of Items	Generates graph for items fit.
Fit Graph of Steps	Generates graph for steps fit.
Item Characteristic Curves	User selects the item and the logit range to be displayed. Shows probability curves for $P(x=0)$ , $P(x=1)$ , etc. The intersections of sequential curves indicate the locations of $\delta_{ij}$ parameters.
Item Cumulative Probability Curves	User selects the item and the logit range to be displayed. Shows cumulative probability curves for $P(x=1 \text{ or higher})$ , $P(x=2 \text{ or higher})$ , etc. The values at probability=.5 indicate the locations of Thurstonian thresholds for each category.
Test Information Curve	Generates information curve for test.

### Estimation Options

The following functions all begin at **Estimation Tasks:**

Calibration Options	Change integration method, quadrature points, logit ranges and convergence criteria for item parameter estimation.
Proficiency Estimation Options	Change proficiency type, integration method and nodes for person parameter estimation.
Compute Item Parameters	Estimates the model to produce population, item, and case estimates.
Filter Students for DIF	Computes parameters for a user-specified subset of the case

Analysis	data for DIF analysis. User selects the demographic field, minimum and maximum values to be included, and turns filtering on or off.
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### Model Settings

The following functions all begin at **System**:

Add Variable, Edit Variable & Criterion Zones	Add a new dimension to the model, or edit an existing dimension specification. Update means, covariances, maximum scores, criterion zones (cut-points), suggestions for improvement, etc.
Add Item Set, Edit Item Set, Delete Item Set	Creates a new Item Set or edits an existing set.
Add Item, Edit Attributes	Creates a new item in the user-specified Item Set (instrument, assessment, activity, etc.).  To EDIT an item, first select the Item Set it belongs to with <b>View – Select Item Set</b> so you can see it on the screen. Select the item by clicking on its column heading, then select the <b>Set Parameters</b> button. You can now edit or delete the item.
Add Demographic, Edit Demographic, Delete Demographic	Add a new demographic field to cases or edit or delete an existing demographic field.

### Creating New Items

1. To create an item, select **System - Add Item** from the menu. The Item data entry window will appear.
2. **Select an Item Set** using the **Browse** button.
3. **Select a variable** from the pull-down list. Notice that a Max Score for the item will appear automatically.
4. Enter a **short name** and a **full name** for the item. Short names must be unique within the Item Set.
5. Change the **Max Score** value if necessary.  
*Note: ConstructMap expects scores 0,1,2,3... to represent the 1<sup>st</sup>,2<sup>nd</sup>,3<sup>rd</sup>,.... score categories, so the Max Score value is related to the number of categories rather than actual score values.*
6. Enter the item difficulty if it is known.
7. Enter the tau difficulties separated by commas if they are known.
8. Check the **Active Item** box to ensure that this item will be included in analyses and computations. Leave the Active Item box unchecked if you do not want the item to be included in the computations and analyses (i.e. if there is no data for the item).
9. Click **OK**.
10. Repeat steps 1-9 to add additional items
11. Save your work by selecting **File - Save** from the menu. This will also export your model specification (variables, items, etc.) into `items.txt` in the ConstructMap44 folder.

### Creating New Students

Note: We recommend that you import your student data from a tab delimited text file rather than enter it all manually (see the *Importing Student Data* section below). You may, however, wish to add a few students manually, using the instructions that follow:

1. Select **Edit - Add Student** from the menu. This will add a row to bottom of the table displayed on the main screen.
2. Enter the **name** of the student in the first.
3. Enter **scores** corresponding to each item in the subsequent columns. You may have to open an Item Set by selecting **View – Select Item Set** (note the item names appear in the column headings and the current Item Set appears in the status line at the bottom of the window).
4. Repeat steps 1-3 for additional students.
5. Save your work by selecting **File - Save** from the menu. This will also export your student data into `students.txt` in the ConstructMap44 folder.

### Creating Import Files (Alternative to Manual Entry)

#### Creating the Model Specification File (Variables, Items, Population data etc.)

Create the model specification file – the variable, item and population settings – in a tab-delimited format. We recommend that you use a spreadsheet such as Excel for creating the file (see `C:\Program Files\ConstructMap44\projects\` for several examples of `items.txt` files).

Each model specification component is entered on a single row, with each type of specification having its own format:

#### **System/Model information (one row only, optional):**

Column A	“s” (single lower case character)
Column B	Minimum scale value to display on graphs – correlates to min. logit.
Column C	Maximum scale value to display on graphs – correlates to max. logit.
Column D	Minimum logit value for estimation computations
Column E	Maximum logit value for estimation computations
Column F	Number of quadrature points for estimation
Column G	Model type, “r” = rating scale, “d” = dichotomous, “p” = partial credit, “m”=mixed dichotomous and partial credit

#### **Variable entries (i.e., dimensions, constructs, progress variables, etc.) (One row per variable)**

Column A	“v” (single lower case character)
Column B	A short abbreviation for the variable.
Column C	A full title for the variable.
Column D	The maximum score for the variable (e.g., 4 indicates that scores 0-4 are valid).
Column E	The mean of the population distribution on the variable; optional.
Column F	The variance of the population distribution on the variable; optional.
Column G	The step difficulties for the variable, separated by commas (the number of steps must equal the maximum score); optional.
Column K	Covariances; optional.

**Item Set<sup>2</sup> entries (e.g., groups of items such as an activity, test, assignment, etc.):**  
(one row per Item Set)

For first level Item Sets:

Column A        “is” (lower case characters)  
Column B        name of this Item Set.

-- OR --

For lower level Item Sets (sets within sets):

Column A        “is” (lower case characters)  
Column B        this Item Set parent’s name.  
Column C        name of this Item Set.

**Item entries:**

(one row per item)

Column A        “i” (single lower case character)  
Column B        The **Item Set** this item belongs to.  
Column C        The short **variable** abbreviation to associate this item with a variable.  
Column D        A short abbreviation to identify the item (this name will appear in the column heading for the Item Set in the data table; it only needs to be unique within the Item Set, however several maps and reports are easier to interpret when every item has a unique name). A length of 4-6 characters is recommended to keep the maps easy to read.  
  
Column E        A full title for the item.  
Column F        The (average) item difficulty; optional..  
Column G        Item comments; optional.  
Column H        Item administration date; optional, but if left blank ConstructMap assumes item is inactive and it will not be used in computing estimates. Users can enter “true” as an option, which makes the item active without a specific date.  
  
Column I        Item step interval difficulties, separated by commas ( $\tau_j$  values rather than  $\delta_{ij}$  values). The number of steps must equal the maximum score value for the item. Optional.  
  
Column J        Maximum score for this item. This field is optional. If it is left empty, the maximum score for the variable associated with the item will be used.

**Save the file in tab-delimited text format.**

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<sup>2</sup> Item Sets can be thought of as individual assessment instruments such as an in-class assignment, test, or quiz, as a collection of assessments within an instructional unit or module, or as a battery of assessments administered at the same time. Many reports are organized by Item Sets, with each top-level Item Set treated as a different point in time. When multiple instruments are administered over a short period of time you may wish to nest sets within other sets. See the SEPUP Demo for an example of nested Item Sets.

Figure 3 is an example of a minimally defined model specification file. Only the variable and item definitions appear. ConstructMap will assume a partial credit model with one assessment stored in the default item set, named “base.” The variable mean will be 0.0 and the variance will be 1.0. The item parameters will be set to 0.

	A	B	C	D	E
1	v	abil	ability	1	
2	i	base	abil	i1	item1
3	i	base	abil	i2	item2

**Figure 3. Minimum model specification file for a unidimensional model.<sup>3</sup>**

Figure 4 shows a more fully specified model. This specification defines a unidimensional dichotomous model using quadrature integration with 10 quadrature points to produce estimates. The reports will transform -3.0 to 3.0 logits to a scale of 1000 to 2000. The variable, “abil1” has a maximum score of 1, a mean of 0 and a variance of 1.0. Two item sets are defined, the top tier named “is1” and the second tier named “act1.” Two items are defined; both are “active” and will be included in all estimations.

	A	B	C	D	E	F	G	H
1	s	1000	2000	-3.0	3.0	10	d	
2	v	abil	ability	1.0	0.0	1.0		
3	is	is1						
4	is	is1	act1					
5	i	act1	abil	i1	item1			1/15/05
6	i	act1	abil	i2	item2			1/15/05

**Figure 4. Model specification file for a unidimensional dichotomous model.**

The `items.txt` files for Example 1 and Example 2 have simple model specifications, while the model specifications for Example 3, Example 4, and the SEPUP Demo project are more detailed. Examples 3 and 4 include a system specification row and the SEPUP Demo project includes a system specification row and Criterion Zone definitions.

<sup>3</sup> The first row (A, B, C, D, etc.) and column (1, 2, 3, 4, etc.) should not be typed into your spreadsheet; they are shown here as a guide.

### Creating the Response Data File

Create the response data in a tab-delimited format. Again, we recommend that you use a spreadsheet for creating the file (see C:\Program Files\ConstructMap44\projects\ for several examples of `students.txt` files).

The response data for each case is entered on a single row, with the item names used as column headings. The file should use the following format:

#### **Required heading section (see Sample 1 below):**

- Row 1            The date the items were scored. The current date is recommended.
- Row 2            Titles for the Item Sets.
- Row 3            The *first* column should be entitled "Name".  
                  The *next set* of columns should indicate any demographic field names.  
                  The *final set* of columns should indicate an item short name.

#### **Optional demographics section**

Start the section with `<DEMOGRAPHICS>` in the first column of a new row (including the `< >` delimiters). This will be the only entry on that row. Subsequent rows will contain demographic field specifications, one demographic field per row:

- Column A        Demographic name
- Column B        Default value for this demographic
- Column C        `true` for a discrete field or `false` for continuous
- Column D        `true` if users can add new categories or `false` if they cannot.  
                  An example of a demographic field that might need additional categories added later is Primary Language, where English and Spanish might be defined initially, but you may want to add other languages later.
- Column E+      Categories this demographic has. Leave blank for continuous demographic fields or those that have no predefined categories. Separate predefined categories with commas, e.g., English, Spanish (for a demographic field for Primary Language).

End the section with `</DEMOGRAPHICS>` in the first column of a new row (including the `< >` delimiters).

#### **Optional answer key section (see Sample 2 below)**

Start the section with `<ANSWERKEY>` in the first column of a new row (include the `< >`). This will be the only entry on that row. Subsequent rows will contain the answer key specification. Create a separate row for each valid response value.

- Column A        A valid student response from the student data file.
- Columns B+     The recoded value for the student response for a particular item. For example, an "A" in column 1 might be scored as a 0 for item 1 and as a 1 for item 2. You need a separate row for each value you want to provide an answer key for. Use "." (without the quotes) to denote a missing score or a missing recoding for a particular item.

End the section with `</ANSWERKEY>` in the first column of a new row (include the `< >`).

*Note: When an answer key is provided, unrecognized responses in the data file will be treated as missing data.*

#### **Required student data section (one row per student):**

- Column A        Student name
- Columns B+     Demographic and response data associated with the column headings.

**Save the file in tab-delimited text format.**

Figure 5 is an example of a response data file that might accompany the model specification file shown in Figure 3. Note that a “.” represents a missing score. The Item Set is “base” with item short names of “i1” and “i2.”

	A	B	C
1	12/12/04		
2		base	base
3	Name	i1	i2
4	Bruce	1	2
5	Aaron	2	2
6	Stacey	.	2
7	Amanda	2	1
8	Jason	3	3

Figure 5. Sample student data import file without optional sections.

Figure 6 is an example that includes an answer key section. In this example, a score of A+ on item i1 will be translated to a score of 3, and a score of A will be translated to a missing score. Scores of A or OK on item i2 will be translated to a score of 2.

	A	B	C
1	10/22/03		
2		base	base
3	Name	i1	i2
4	<ANSWERKEY>		
5	A+	3	3
6	A	.	2
7	B	2	1
8	OK	1	2
9	</ANSWERKEY>		
10	Bruce	OK	A
11	Aaron	B	A
12	Stacey	A	OK
13	Amanda	B	B
14	Jason	A+	A+

Figure 6. Sample student data import file with optional answer key section.

Figure 7 is an example that includes a demographic field section. Two demographic fields are defined: Class and Gender. In this example, Class represents the section the student is enrolled in. Gender is self-explanatory. Note on row 3 that Name does not have a default value, and it is identified as a discrete (categorical) field in which users can add new values. In row 4, Class is defined with no default value and is also identified as a discrete field in which users can add new values. Gender is defined in row 5, with a default value of “Male” and is also identified as a discrete field, but users cannot add values other than “Male” and “Female.”

	A	B	C	D	E	F
1	10/22/03					
2	<DEMOGRAPHICS>					
3	Name		TRUE	TRUE		
4	Class		TRUE	TRUE		
5	Gender	Male	TRUE	FALSE	Male	Female
6	</DEMOGRAPHICS>					
7				base	base	
8	Name	Class	Gender	i1	i2	
9	Bruce	1	Male	1	1	
10	Aaron	1	Male	2	3	
11	Stacey	1	Female	3	2	
12	Amanda	2	Female	1	2	
13	Jason	2	Male	2	3	

**Figure 7. Sample student data import file with optional demographics fields section.**

The `students.txt` files for Example 1, Example 3 and the SEPUP Demo have simple response data. The response data for Example 2 includes demographic fields and the data for Example 4 includes an answer key.

### Importing the Data

1. Select **File - Import Wizard** from the menu.
2. Browse to the tab-delimited model specification file you created and click **Open**. (If necessary, check the box that indicates, “Use first row of the file as data header”).  
Note: The system will report any difficulties encountered during the import process by displaying them on the screen and also writing them to a file named `filename_errors.txt`. This error file will be located in the `logs` folder.
3. When the importing process finishes, your data will be displayed in the ConstructMap window. Select **File – Save**.

### Computing Parameters

If you did not enter item and step difficulties in the model specification file you **must** calculate them before ConstructMap can display any maps or analytical reports.

1. Select **Estimation Tasks – Calibration Options** from the menu. Enter values for integration method, nodes, logit range, and convergence criteria as needed.
2. Select **Estimation Tasks - Compute Item Parameters** from the menu.
3. When asked if you want to accept the parameters, select **Yes**.
4. When asked if you would like to have the final EAP estimates saved, select **Yes**.
5. Your data is now ready for generating reports and maps.

NOTE: If the **Yes No** buttons are not visible, press the **Enter** key for **Yes** or press the **tab** key and then the **Enter** key for **No**. (For Mac users, press **tab tab space** for **Yes** and press **tab tab tab space** for **No**.)

### Exporting Your Data

You can export your current project data to use ConstructMap for multiple projects. Currently, ConstructMap is designed to recognize one project at a time, so importing new model and student data deletes the current project from the system. To save the data, you can export both the model specification and the student data to a separate directory. This data can then be imported back into ConstructMap when you need it again.

1. Select **File – Save as/ Save**.
2. Browse to the folder where you want the data stored and provide a filename. We recommend that you create a new folder within the `projects` folder for each of your projects. Click on **Save**.

## Appendix A – ConstructMap Menu Options

### File

- New Project
- Open
  - Tab Delimited
  - ASCII (Conquest)
  - Standard (2 Files)
- Import Wizard

-----  
Save  
Save Project As...

-----  
Exit

### Edit

- Cut
- Copy
- Paste

-----  
Add Student  
Delete Student

### View

- Select Item Set
- Select Demographic Columns to Display
- Select Students to Include
- Show Filtered Students Only
- Show Recoded Values

### Reports

- Filter Students for Reporting
- Group Reports
  - Frequency Map
  - Performance Map
  - Ability Estimates
  - Ability Estimates by Level
  - Ability Estimates with Fit Statistics
- Correlate Groups
- Correlate Forms
- Individual Reports
  - Profile Map
  - Performance Map
  - Activity Averaging Map
  - Item Tracking Map
  - Diagnostic Map
  - Graphical Diagnostic Map
  - Responses Report

### Item Reports

- Default
- Wright Map
- Graphic Wright Map
- Item Estimates and Fit Graph
- Classical Item Statistics
- Construct Map

-----  
Fit Graph of Items  
Fit Graph of Steps  
Item Characteristic Curves  
Item Cumulative Probability Curves  
Test Information Curve

### Report Options

### Estimation Tasks

- Calibration Options
- Proficiency Estimation Options

-----  
Compute Item Parameters  
Filter Students for DIF Analysis

### System

- Add Variable
- Edit Variable & Criterion Zones

-----  
Add Item Set  
Edit Item Set  
Delete Item Set

-----  
Add Item  
Edit Attributes

-----  
Add Demographic  
Edit Demographic  
Delete Demographic

-----  
Change Password  
My Notes  
Edit Target Probability Definitions

### Help

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