ParTEST

ParTEST provides *complete* item banking and test generation. Up to 26 versions of a test can be created in ParTEST and scored quickly and accurately in ParSCORE, using any of Scantron's compatible OMR scanners. Tests can also be administered online via a single PC or on a LAN or on the Internet using ParTEST OnLine.

Tests are extremely easy to assemble with ParTEST due to its drag-and-drop assembly function. ParTEST offers a word processor-like interface and includes question design flexibility, standard and custom dictionaries *plus* multimedia design capabilities.

- Create item banks, objectives, instructions, and questions
- Create up to 26 versions of a test by scrambling questions and/or answers
- Create unlimited Item Banks with each containing up to 2000 questions
- Categorize and sort questions using *Objectives* and *Keyword* Labels

  View test question statistics:
- View *last test* and *cumulative tests* statistics *for each question*
- View the difficulty and discrimination levels associated with each question
- View the dates a question was created, modified and last used
- View response frequencies for each question

Multi-media
- Embed graphic (.bmp) files in instructions and questions
- Embed movies (.avi, .mpg, .mov, .qt,) in instructions and questions
- Embed sound (.aif, .aife, .aiff, .mid) in instructions and questions

  Preview feature
- Conveniently quick-preview questions and instructions prior to selecting

Basic Steps for using ParTEST

1. After logging on, **Create an Item Bank** to *store* questions.

2. **Create Objectives** for *filing* questions.

3. **Enter the Questions** along with key information for each question including the *text* for the question, the *choices*, the *correct answer*(s), the answer explanation, keywords for labeling and locating the question easily, as well as other question specific data.

4. **Assemble a Test** with questions chosen using multiple-selection criteria.

5. After a Test is assembled, **Generate the Test** to validate it and to create up to 26 versions.

Now you are ready to give the test!

1. **Administer Test** using Scantron test forms or deploy it online using ParTEST OnLine.

2. **Score the Test** using ParSCORE or ParTEST OnLine.

3. **Post Test Results** back to ParTEST and update the item analysis and other statistical data for each question. Statistics are derived from how students *answered* the questions.

ParTEST Terminology and Explanations:

The System Administrator
- Is the person designated to log in first and set up authorized users
- Sets up *default* Item Bank Labels (Attributes) and Question Labels (Keywords)
- Sets up *default* Levels of Difficulty and Discrimination

The Users
- Primary Users, Secondary Users and Public Access Users

The Primary User is the Instructor
- Creates Item Banks, Questions and Tests
- Controls read/write access of Item Banks & Questions to Secondary users
- Primary Users can assign *read only* Public Read access to any Item Bank

Security for ParTEST Windows
- Names and Passwords are required for an authorized user to *log onto* ParTEST
- Only *authorized* users may access ParTEST's Item Banks and Test files
- Unique Reference Numbers are system-generated for users' Item Banks & Test files

Built-in Spell Checker and Dictionaries
- Spell Checker finds and corrects spelling errors in item banks, questions, etc.
- ParTEST contains a standard dictionary
- Users can add custom dictionaries such as legal, medical, and foreign languages

System Requirements for ParTEST
- Novell network or Windows ® NT Server* (only required for the LAN version)
- Windows ® NT 4.0 or higher, Windows ® 95, Windows ® 98, Windows ® 2000 on a 166 MHz or greater Pentium processor
- 32 MB of RAM (64 MB of RAM for Windows ® 2000)
- 20 MB available hard disk space

- Windows Media Player v6.x**
- Microsoft compatible mouse
- VGA color monitor (SVGA color monitor recommended)
- Serial port and serial cable
- HP compatible laser printer (HP LaserJet 4 or greater recommended)

**Only required when generating multimedia online files

ParTEST: The Basic Steps

I.   A System Administrator Logs In and Sets Up Authorized Users

a. Each user's ParTEST data is maintained in secure, system-generated folders.
When a new user is added to ParTEST, a unique folder for that user, for example U1222323, is automatically created in the ParTEST directory.   Later when the user creates item banks and tests, they are stored in his *unique* folder. A *partestwin.ini* file is also generated to store each user's preference settings as well as the spell checker setup options.

b. The System Administrator sets up 8 default Attribute Labels that are used to identify Item Banks. Attributes are used to easily sort and locate Item Banks.

Edit Attribute Labels		⊠
Label 1: City	Label 5:	District
Label 2: State	Label 6:	Teacher
Label 3: County	Label 7:	Level
Label 4: School	Label 8:	Term
	OK	Cancel

c. The System Administrator sets up default Question Difficulty Settings that are used in determining if a question is easy, medium or hard.

Edit Levels of Difficulty Setting

ItemBank: Econ 100
Label for Easy Level: Easy
Label for Medium Level: Medium
Label for Difficult Level: Difficult

	Difficult		Medium		Easy
True-false (%):	Below 65	65	to less than 80	80	or above
Multiple Choice (%):	Below 50	50	to less than 75	75	or above
Matching (%):	Below 50	50	to less than 75	75	or above

OK   Cancel

d. The System Administrator sets up default Discrimination Settings that are used to evaluate the effectiveness of individual test questions.

Edit Levels of Discrimination Setting

			Low		Medium		High
ItemBank:	Econ 100						
Label for Low Level:	Low						
Label for Medium Level:	Medium						
Label for High Level:	High						

	Low	Medium	High
True-false Threshold (%):	Below 10	10 to less than 20	20 or above
Multiple Choice Threshold (%):	Below 15	15 to less than 30	30 or above
Matching Threshold (%):	Below 15	15 to less than 30	30 or above

OK   Cancel

Question Difficulty

Question difficulty is the percentage of the total group of students who answered the question *correctly*. Difficulty levels determine if a question is easy, medium, or hard.
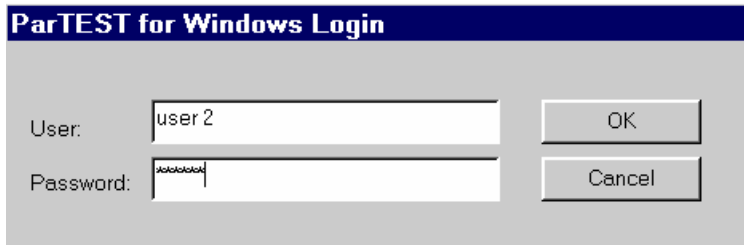
Question Discrimination

Discrimination is the single best measure of the *effectiveness* of a question. It measures how well a question discriminates between those who have mastered the material and those who have not. Discrimination levels help determine if the question's ability to discriminate is low, medium, or high.

How are Difficulty and Discrimination assigned to each question?

ParTEST *automatically* assigns the appropriate difficulty and discrimination to each question after comparing <u>the user-set criteria</u> with the actual question analysis data (posted back from ParSCORE). Last Test and Cumulative Tests statistics are calculated and maintained as part of the question history. <u>Instructors can make critical decisions to improve test construction based on these powerful question statistics.</u>
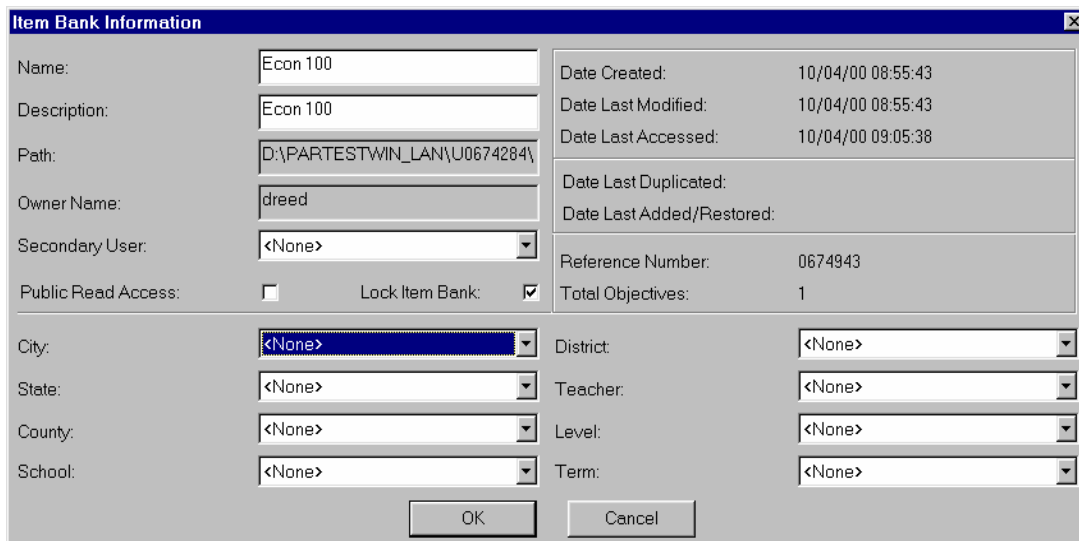
II. The Primary User may be the instructor or trainer.
A primary user logs in using his User Name and Password.

ParTEST for Windows Login

User: user 2

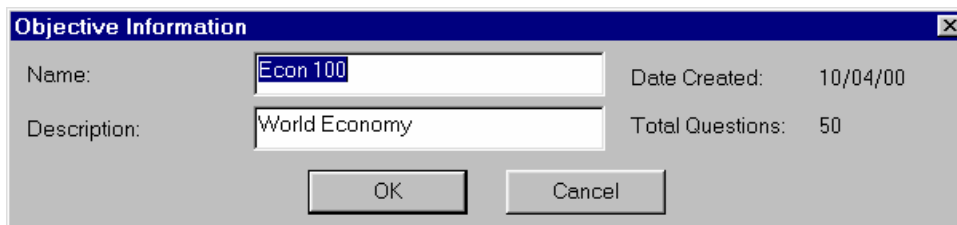Password: ******

OK

Cancel

III.   Create Item Banks.
- Item Banks are created to store questions within ParTEST.
- Unlimited Item Banks can be created with *up to 2000 questions* per Item Bank.
  Access:
- Primary Users may grant read and/or write access to Secondary Users.
- Primary Users may grant *read only* access to Public Users.

Item Bank Information

Name:	Econ 100	Date Created: 10/04/00 08:55:43
Description:	Econ 100	Date Last Modified: 10/04/00 08:55:43
Path:	D:\PARTESTWIN_LAN\U0674284\	Date Last Accessed: 10/04/00 09:05:38
Owner Name:	dreed	Date Last Duplicated:
Secondary User:	<None>	Date Last Added/Restored:
Public Read Access:	☐ Lock Item Bank: ☑	Reference Number: 0674943
		Total Objectives: 1

City:	<None>	District:	<None>
State:	<None>	Teacher:	<None>
County:	<None>	Level:	<None>
School:	<None>	Term:	<None>

OK   Cancel

IV.   Objectives are created within each Item Bank.
At least one objective is required for organizing questions within each Item Bank.
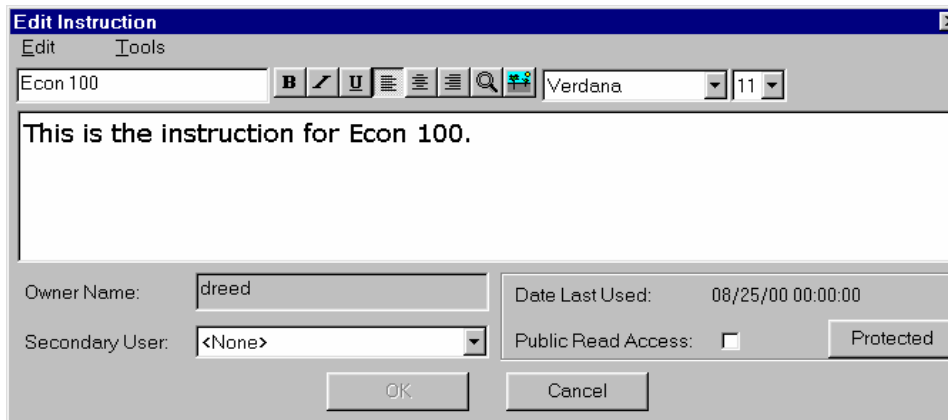
Objective Information

Name:	Econ 100	Date Created: 10/04/00
Description:	World Economy	Total Questions: 50

OK   Cancel

V.   Instructions are created.

Instructions are placed on a test to assist students in completing the test.

Edit Instruction

Edit   Tools

Econ 100

This is the instruction for Econ 100.

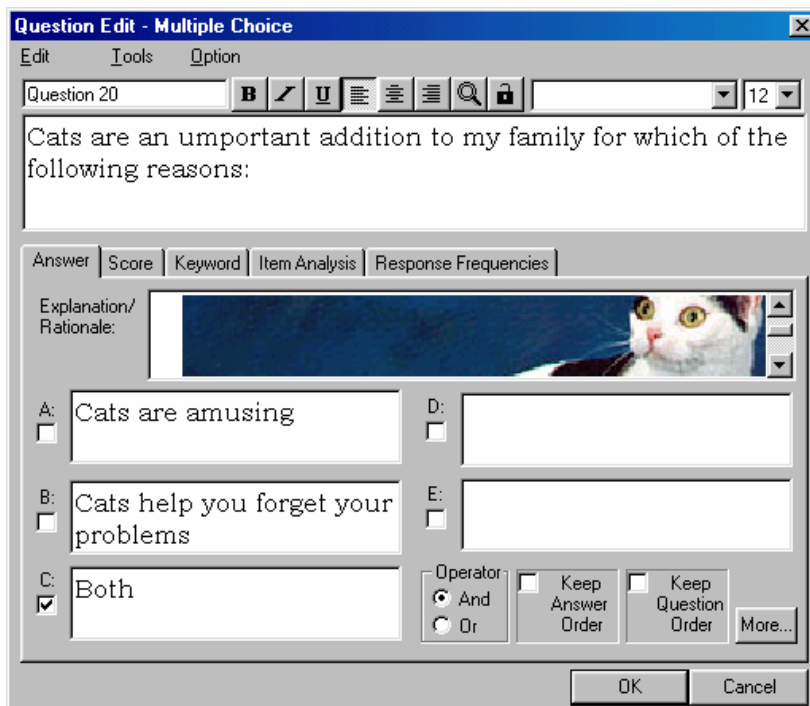Owner Name: dreed   Date Last Used: 08/25/00 00:00:00

Secondary User: <None>   Public Read Access: ☐   Protected

OK   Cancel

VI.   Questions are created using flexible options.

- Create Multiple Choice, True/False, Matching, Fill in and Essay Questions
- Create up to 26 choices for Matching and Multiple Choice questions
- Choose Multiple Correct Answers for select questions
- Define Question Values and Penalty Points to *individual* questions
- Assign Keywords to classify and easily locate questions
- Embed enhancing graphics, sounds and movies into questions or instructions
- Select from a variety of fonts and formatting options for flexible designs
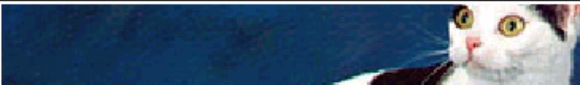
Question Edit - Multiple Choice

Edit   Tools   Option

Question 20

Cats are an umportant addition to my family for which of the following reasons:

Answer | Score | Keyword | Item Analysis | Response Frequencies

Explanation/
Rationale:

A: Cats are amusing   D:
☐   ☐

B: Cats help you forget your   E:
☐   problems   ☐

C: Both   Operator   ☐ Keep   ☐ Keep
☑   ⦿ And   Answer   Question
○ Or   Order   Order   More...

OK   Cancel

VII. Questions and instructions are selected to assemble a test.

From ParTEST's main menu, users open <u>one or more Item Banks</u> and select desired questions and instructions from the Selection Window. Using Drag-and-Drop, questions are easily moved to the Test Window to assemble a test. Any question selected can be viewed in the Quick Preview window at the bottom of the main menu - this feature offers speed and accuracy in test construction.
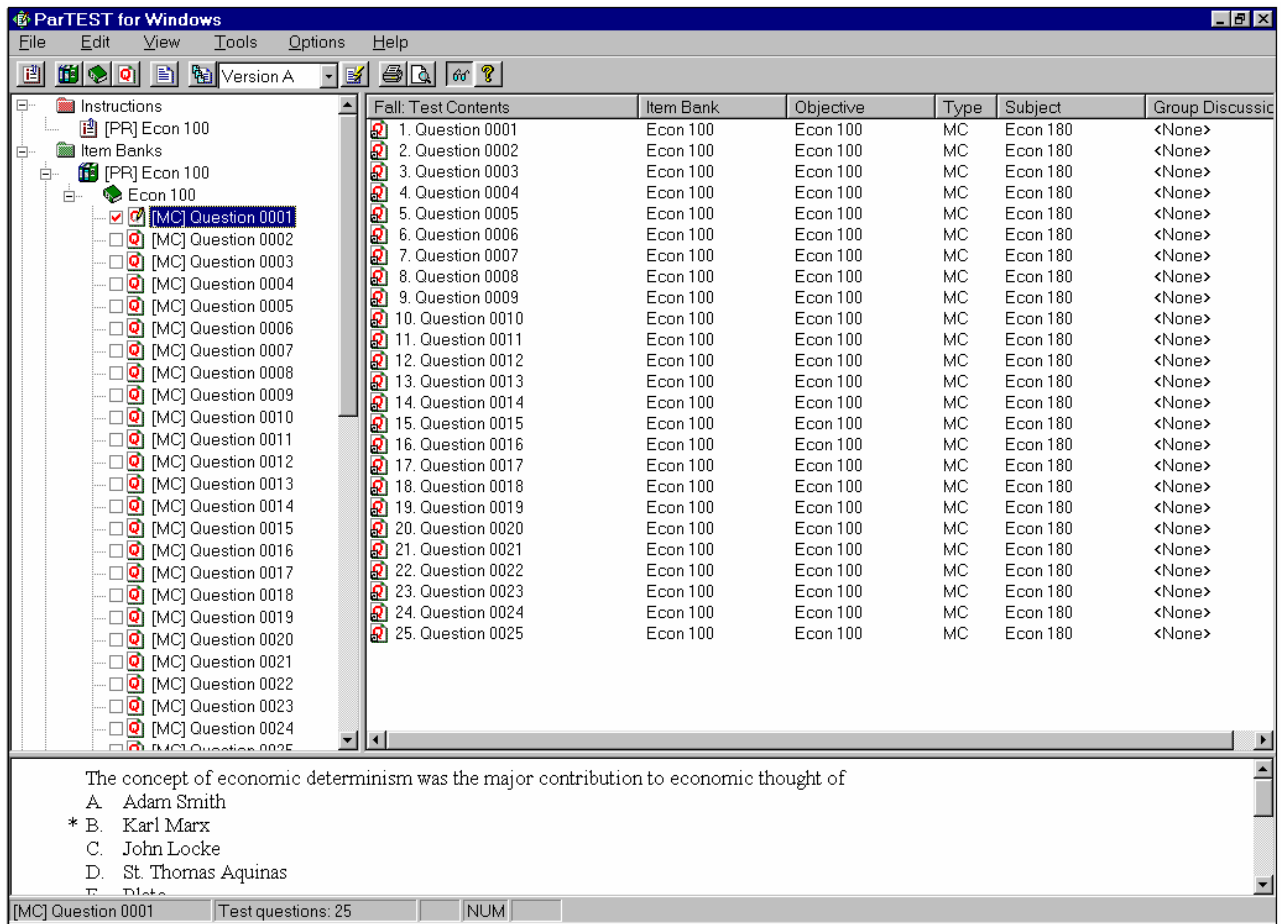
Selection Window   **Test Window**

VIII.   Multiple criteria may be used in selecting questions

Questions are selected using single or compound criteria. Users may pick questions using a variety of choices including question type, question difficulty, question discrimination, keywords, or even specific dates such as *last date used.*

View by Compound Criteria	☒
Item Bank:	ParTEST for Windows

Question Type:	Multiple Choice ▼
Level of Difficulty:	Easy ▼
Level of Discrimination:	Medium ▼
Not Used Since: (MM/DD/YY)	12/01/00

Operation
○ And
⦿ Or

Chapter:	☑	Chapter2 ▼
Subject:	☑	Access Rights ▼
Software:	☑	<None> ▼
Source:	☑	Addendum ▼
Training:	☑	<All> ▼
Field Trip:	☑	<All> ▼
Group Discussion:	☑	<All> ▼
Peer Review:	☑	<All> ▼

OK

Cancel

IX.   Generate a Test

Generating a test *validates* a test before it is administered to students.
At this time, the teacher may also create up to 26 scrambled versions of test.

Generate Test Versions   ☒

○ Generate Single Test Version

⦿ Generate Two or More Test Versions |2|▲▼|

   Scramble Questions: ☑
   Scramble Answers: ☑

| Undo Generated | Generate | Cancel |

X.   Score the Test in ParSCORE or ParTEST OnLine!

XI.   Printing ParTEST Reports
Six report types are available to print or preview.

Report   Description
1. Test and Selective Details   Preview or print the selected test.

2. Test Key   Preview or print the selected test key.

3. Test Blueprint   Preview or print critical test reliability data.

4. Answer Sheet   Preview or print an answer sheet for manual scoring.

5. Item Bank Details   Preview or print criteria for selected item bank.

6. Item Bank Cross Reference   Preview or print question summary information.

XII.   View Question Statistics *posted back* to ParTEST Tests must be scored in ParSCORE or ParTEST OnLine.

a. Instructors can view statistics for each question to make decisions regarding if a question must be eliminated, modified or maintained as is.

- View Question Difficulty and Discrimination.
- View test results for students in the upper 27% and lower 27% of the group(s).
- View historical question statistics based on the number of students responding to a question a) on the *last test* it appeared & b) on *cumulative tests* on which it was used.

| Answer | Score | Keyword | Item Analysis | Response Frequencies |

Question/Stimulus: 2

	Last	Cumulative
Number of Students taking the Test Item:	101	101
Item Difficulty (percentage of total group with correct responses):	53.4653	53.4653
Percentage of the upper 27% of the group with correct responses:	100	100
Percentage of the lower 27% of the group with correct responses:	0	0
Discrimination Index (Point-Biserial Correlation Coefficient):	0.66895	0.66895

b. Instructors may view Response Frequencies for the *last test* and for *cumulative tests* on which a question was used. This powerful data helps the instructor in deciding whether to maintain choices or modify choices to improve both question validity and test design.

| Answer | Score | Keyword | Item Analysis | Response Frequencies |

Question/Stimulus: 2

	Last	Cumulative
Percentage of total group choosing A choice:	0	0
Percentage of total group choosing B choice:	53.4653	53.4653
Percentage of total group choosing C choice:	0	0
Percentage of total group choosing D choice:	24.7525	24.7525
Percentage of total group choosing E choice:	0	0

More...

XIII. Where to Get Support

1. **Scantron's Customer Assistance Center can be reached at (800) 445-3141.**
    Hours: 6:00 am to 4:30 PM PST
    Days: Monday through Friday

2. **Fax Questions to the Customer Assistance Center at (714) 247-0013.**