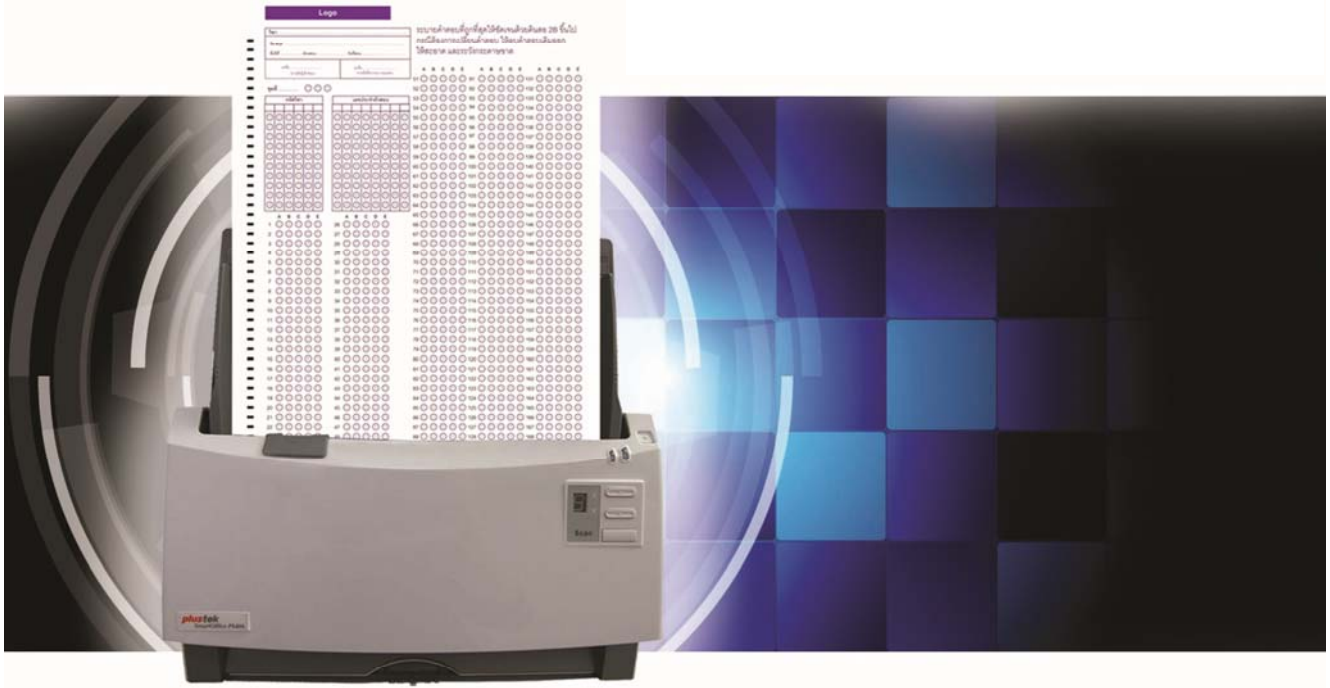


USER MANUAL



Ezy OMR



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1. Overview

EZY OMR is optical mark recognition software that is very easy, accuracy, fast and flexible. This is total solution for university, college, school, test center, research company, etc.




1.1. System Requirement

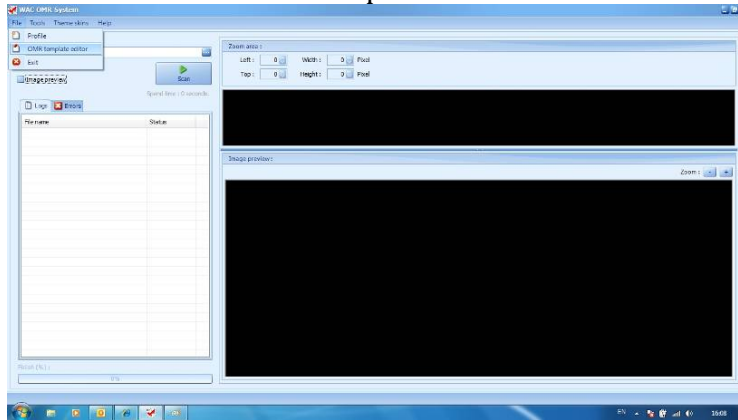
Support OS - Win XP, Vista, 7, 2003 Server, 2008 Server.

1.2. Steps of EZY OMR

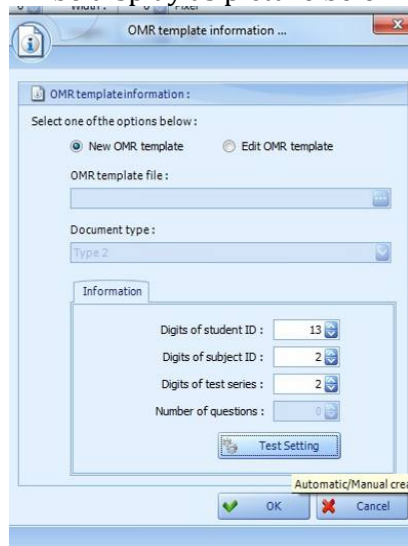
- Create answer sheet form.
- Create OMR Template.
- Create test profile.
- Print answer sheet form.
- Scan answer sheet.
- Check student ID with database.
- Create answer key file.
- Score and analyze.
- Export data.

3.1. Create OMR Template

1. Double clicks at icon  to open EZY OMR.

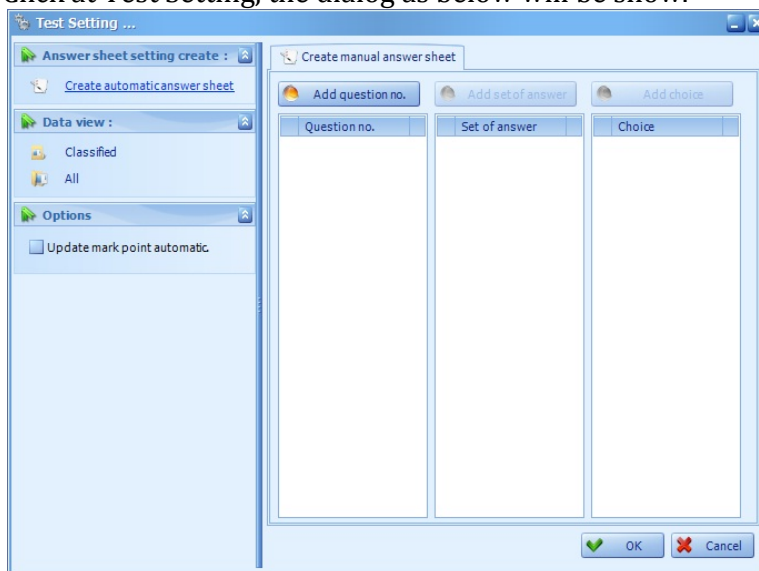


2. Go to File → OMR template editor. The OMR Template Information will be display as picture below:

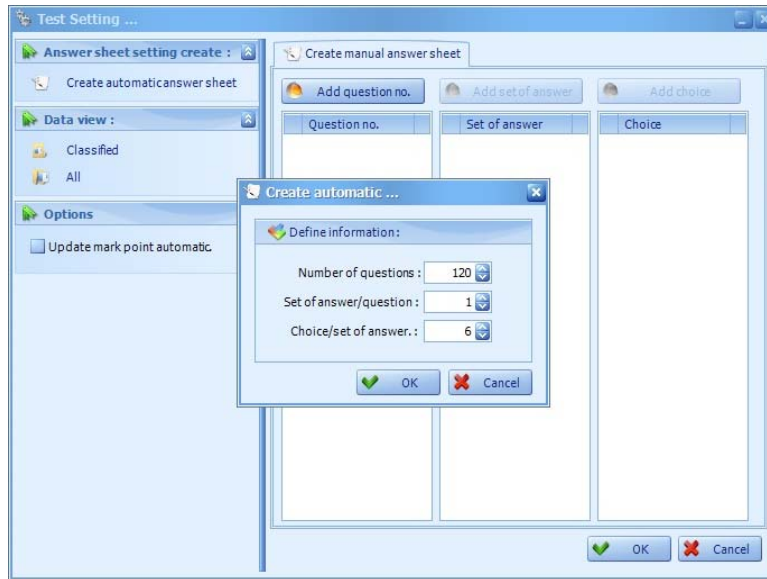


3. Select New OMR Template
4. Digits of Student ID – the digits of student ID such as 3502613213=10 digits.
5. Digits of Subject ID – the digits of subject ID such as 001 = 3 digits.
6. Digits of Test Series – the digits of test series such as 1 series, 2 series.
7. Number of Questions – all questions in the test such as 100 questions, 120 questions, 140 questions.

8. Click at Test Setting, the dialog as below will be show.



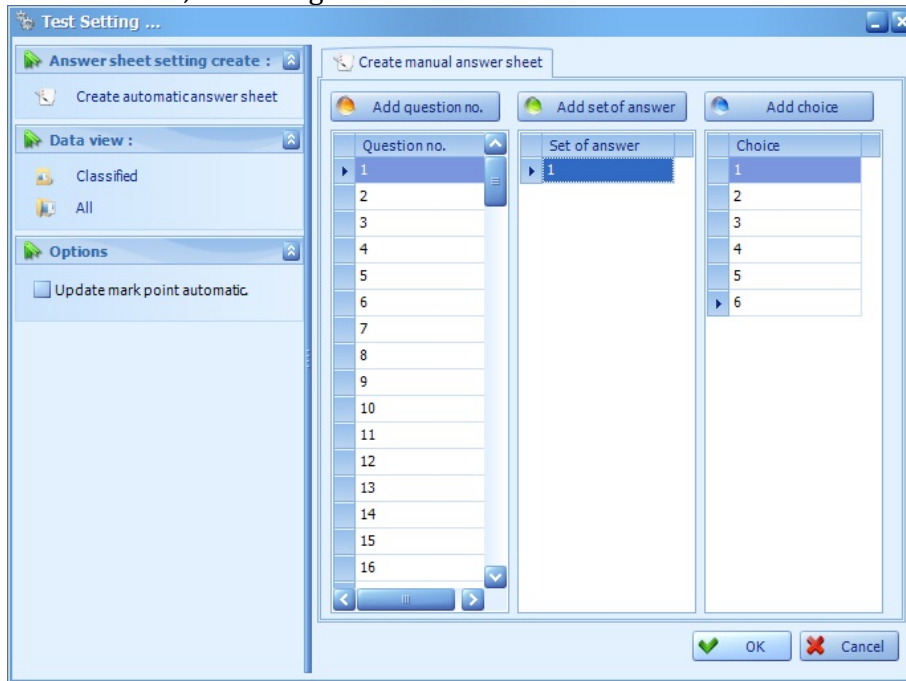
9. Click at Create automatic answer sheet



- Number of Questions – total questions in the test.
- Set Of Answer/ Question – answer set for each question
Ex. 1 set of answer
Q – What is part of house?
A – 1. Roof 2. Leg 3. Hand 4. Paper → Set of answer = 1

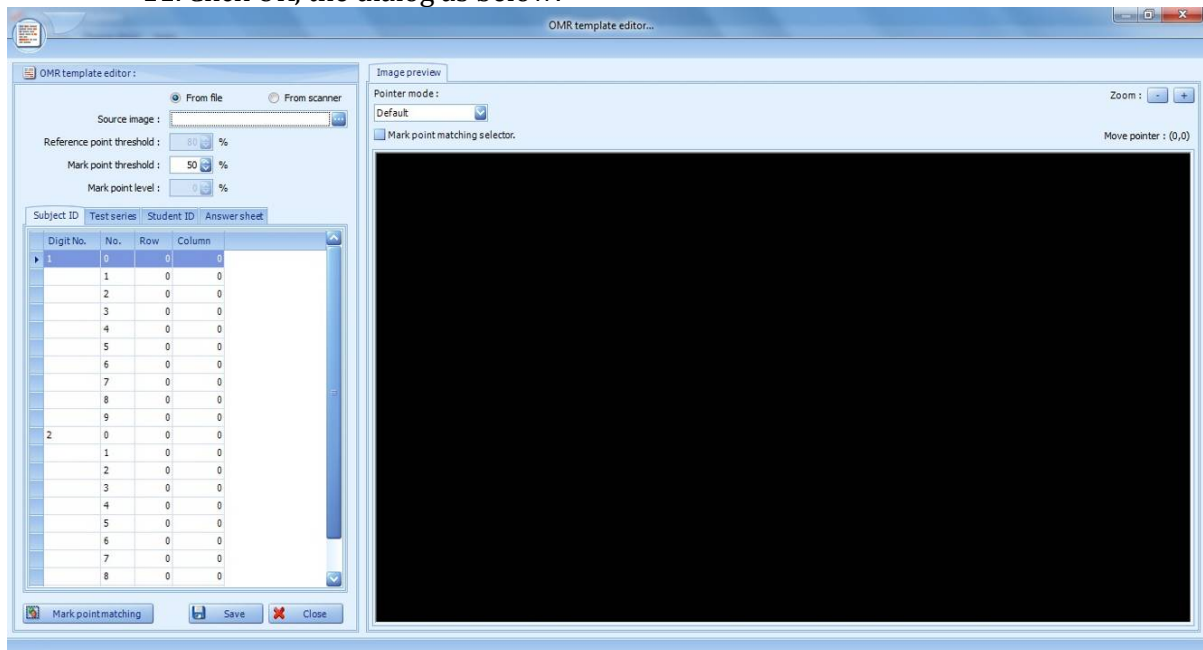
Ex. 2 sets of answer
Q – Match the correct color with fruit?
Answer 1 – banana, apple }
Answer 2 – yellow, red } → Set of answer = 2
- Choice / Set Of Answer is number of choices for each set of answer
Ex.
1. Roof 2. Leg 3. Hand 4. Paper → Choice / Set of Answer = 4

10. Click OK, the dialog as below will be show:



- Add question No. - add question in OMR template.
- Click at question No. that you want in the left pane → click Add set of answer in order to add set of answer as you want.
- Click set of answer that you want in the middle pane → click Add Choice in order to add choice as you want.

11. Click OK, the dialog as below:



12. Scan answer sheet into program, you can import answer sheet image "From file" or "From scanner"

12.1. From file

12.1.1. Click at "From file".

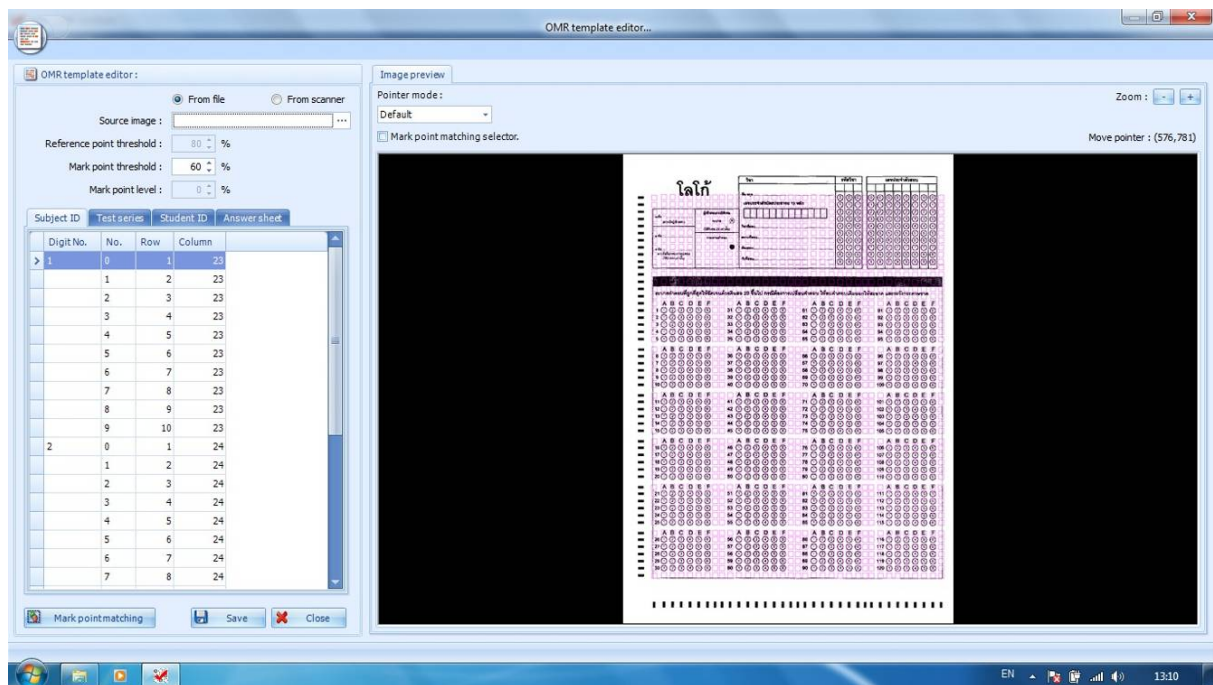
12.1.2. Source Image – select the answer sheet file's path (image should be BMP file).

12.1.3. Mark point threshold – set darkness (%) of bubbles that program can detect (the student response).

Ex. Mark point threshold is 40% means program can detect the bubbles which are darkness $\geq 40\%$, these are student response. For others that less than 40% will not be detect, these are blank bubble or not student response.

12.1.4. Min = 20% (50% is recommended)

12.1.5. Click at "Save".



12.2. From scanner

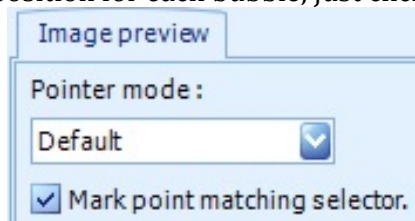
12.2.1. Click at "From scanner"

12.2.2. Source scanner – select scanner

12.2.3. Click at scan

12.2.4. If the image is correct, clear and straight, click at Apply

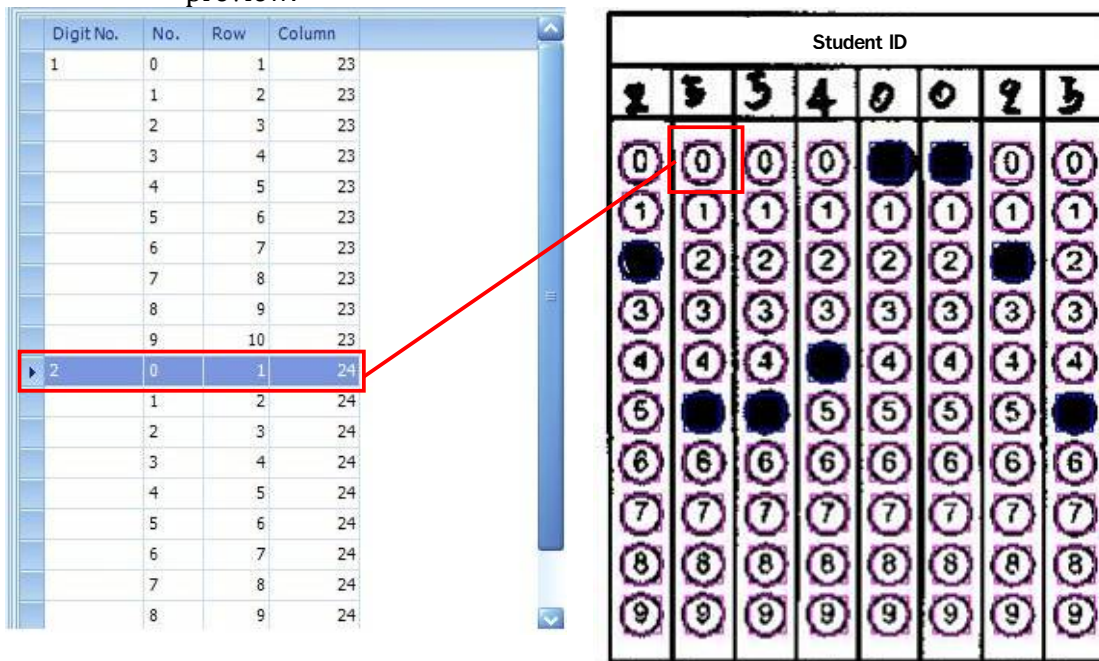
12.2.5. Image preview – select default in order to automatically set position for each bubble, just click at each bubble.



12.2.6. Select Student ID tab

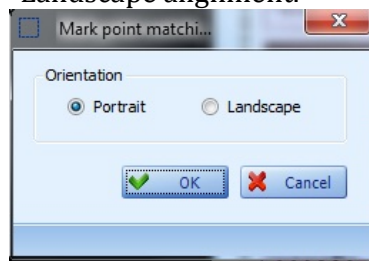
12.2.7. Click at one row in the student ID tab, then click at bubble in the image in order to match correct template position with correct bubble position.

Ex. As picture below, click at row “Digit No.=2, No. = 0” means the second digit of student ID and first numeric is “0”, then click at the “0” in image preview.

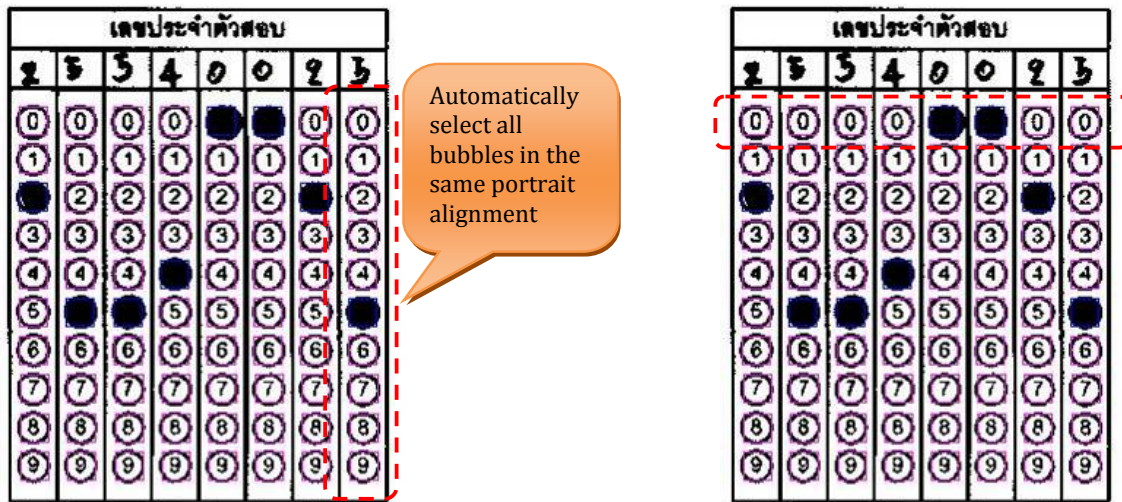


12.2.8. After that mark point matching dialog box will be show as below picture.

- Portrait – automatically select all bubbles in the same portrait alignment.
- Landscape – automatically select all bubbles in the same Landscape alignment.

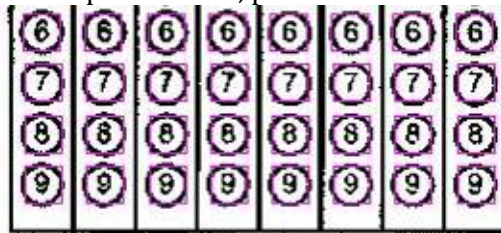


Automatically select all bubbles in the same Landscape alignment



12.2.9. Do as step 12.2.7-12.2.8 for Subject ID, Test Series, Student ID and Answer sheet tab.

12.2.10. Click at  to verification. If each bubble is in pink square (as picture below), you can save this template. If not, please redo 12.2.7-12.2.8.



3.2. Edit OMR Template

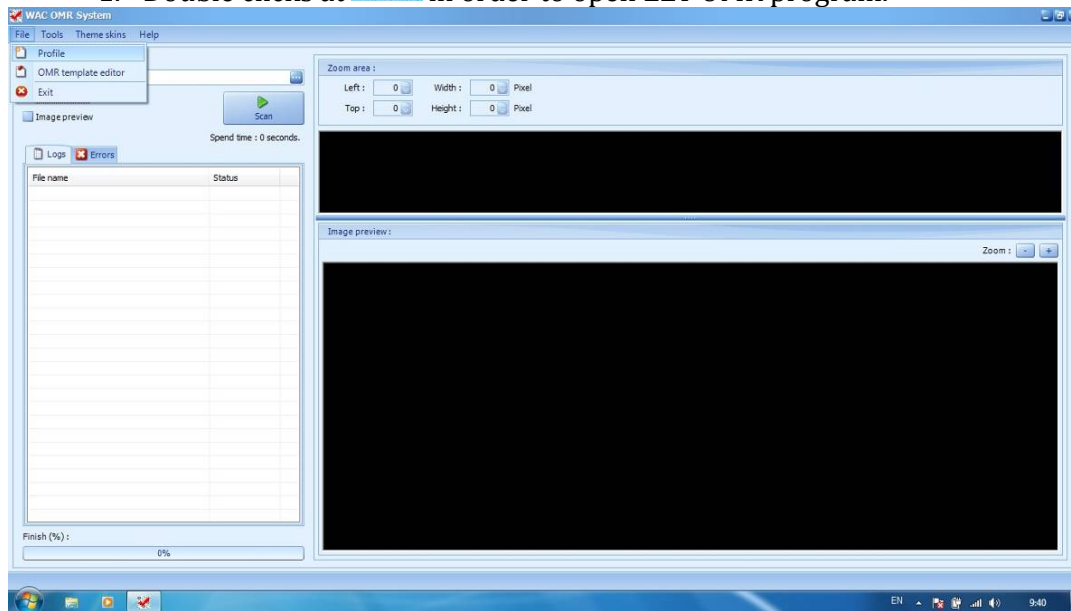
1. File->Template Editor->Edit OMR Template -> OMR Template File.
2. Select OMR Template file then click at OK.
3. Select default in Image preview.
4. Do as 12.2.7-12.2.8
5. Click at Mark Point Matching in order to verification.
6. If each bubble is in pink square, save this template.

4. Test Profile

All information about test will be defined in test profile. Please note that the information in test profile is very important because this information will be involved with every step. So please complete it with correct information.

4.1. New Test Profile

1. Double clicks at  in order to open EZY OMR program.

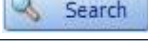


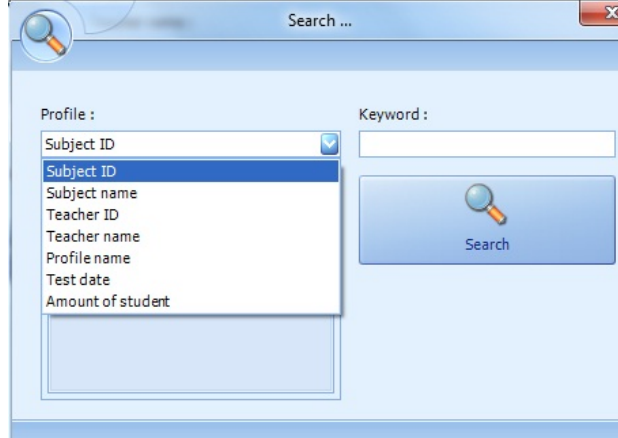
2. Go to File→Profile, the screen as below will be shown.

Profile name	Subject ID	Subject name	Teacher ID	Teacher name	Test date	Amount of student	Save in folder
thai001	001	thai	002	test	2011-06-27-14-24-00	10000	C:\Users\ton\Documents\WAC OMR\OMRfile

- 2.1. Subject ID
- 2.2. Subject Name
- 2.3. Teacher ID
- 2.4. Teacher Name
- 2.5. Test Date
- 2.6. Amount of student – total student in that test.
- 2.7. Save in Folder – the path to save OMR file.
- 2.8. OMR Template File – select OMR Template.
- 2.9. Click at save and close.

4.2. Search profile

1. From profile screen, click at  Search , the dialog box as below will be shown.



2. Select field from profile drop down list, enter keyword in the right blank, and then click at Search.



5. Scan and OMR answer sheets

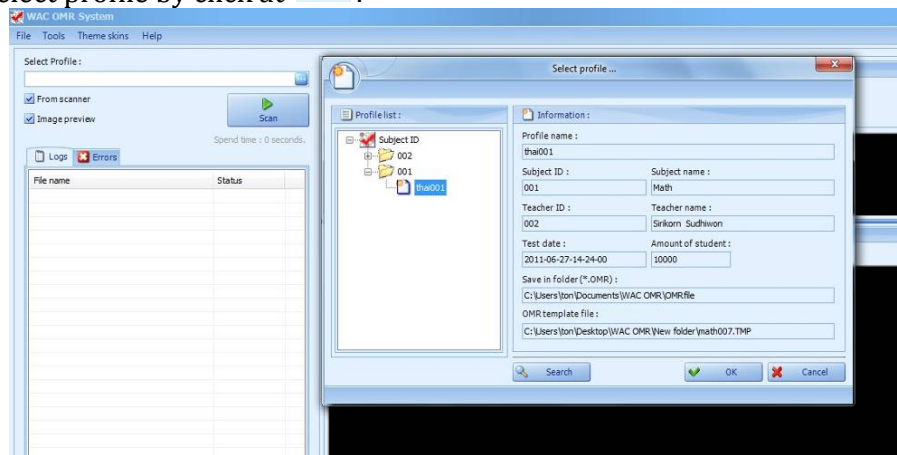
After finish test, all answer sheets must be scanned and OMR to check that which bubbles are student response (not correct or wrong).

There are 2 ways for OMR;


1. OMR From scanner – scan answer sheets while OMR process in the same time.
2. OMR From scanned image – OMR from scanned answer sheet image.

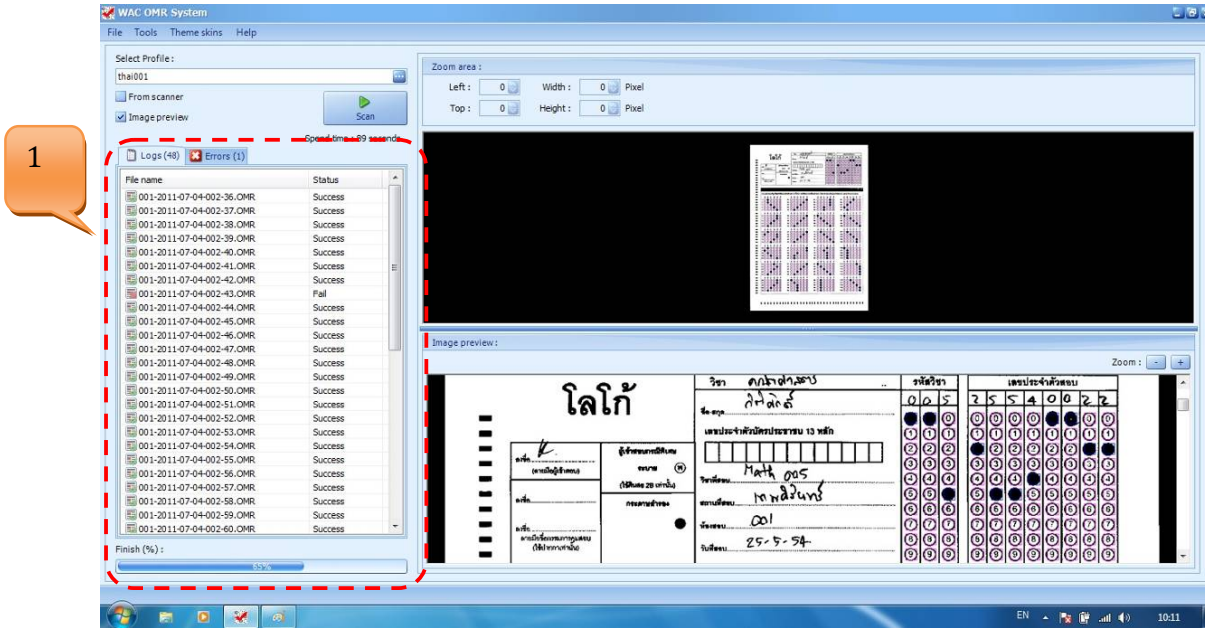
5.1. OMR from scanner

1. Double clicks at  in order to open EZY OMR program.
2. Tick in “From scanner” check box.
3. Tick in “Image preview” check box if you want to see answer sheet image while scanning.
4. Select profile by click at .



5. Click at OK.




- Put answer sheets in scanner and then click at . After finish, the screen as below will show.



- The answer sheets that already scan and OMR will be in No.1 in the above picture. After file name will show OMR status “success” or “fail”.
- If you want to delete OMR file, click at the file in list, click right mouse and then click at “Delete OMR file”




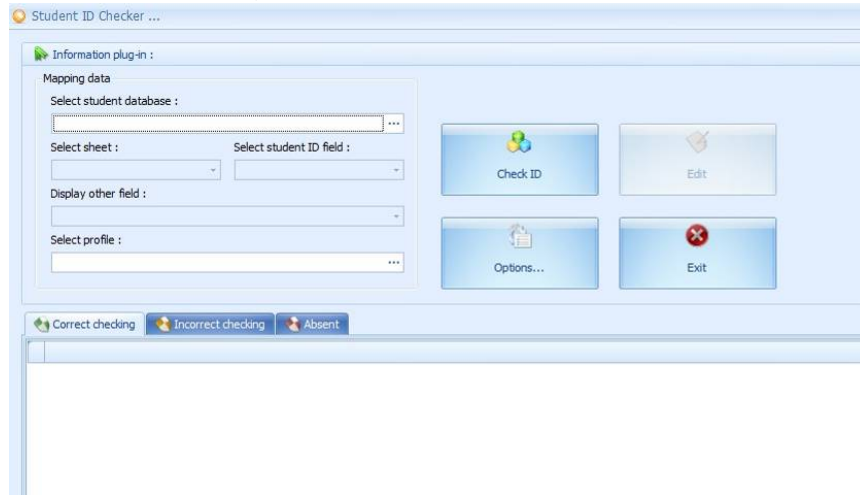
5.2. OMR from scanned image

- Double clicks at  in order to open EZY OMR program.
- Clear** ✓ from check box “From scanner”.
- Tick ✓ in “Image preview” check box if you want to see answer sheet image while scanning.
- Go to Tool → Option → File type. Select as image file.
- Select answer sheet image file from Source folder.
- Select profile by click at 
- Click OK
- Put answer sheets in scanner and then click at .

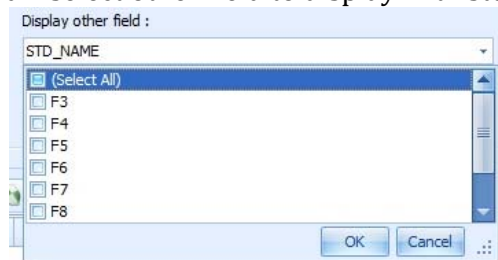
6. Student ID Checker

This use for verify student ID in answer sheets are as same as database (Excel file).


1. Double clicks at  , the screen as below will be show.

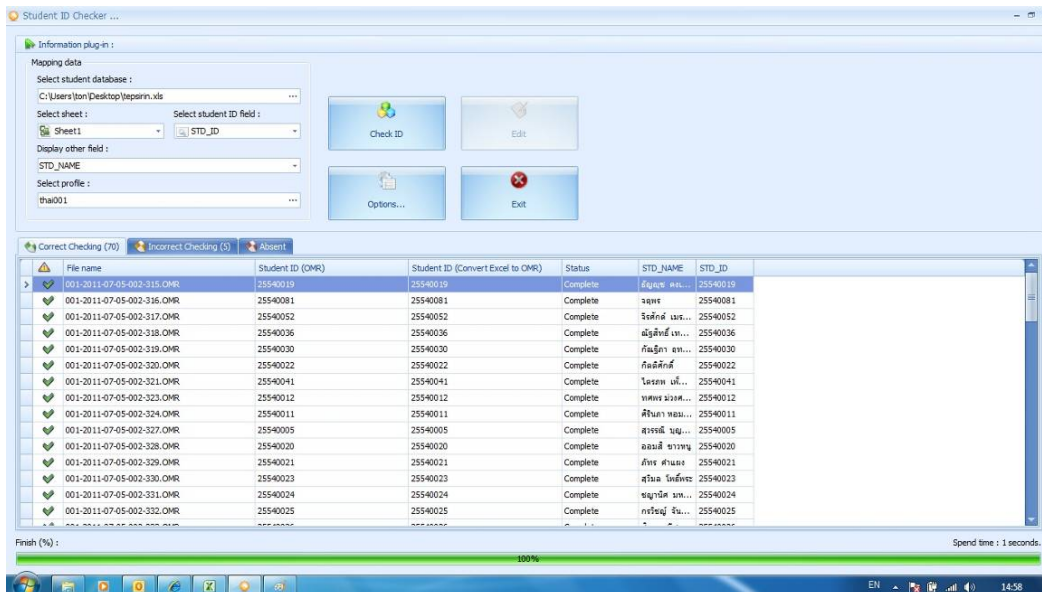


2. Select student database - as Excel file.
3. Select sheet - select sheet which are student database.
4. Select student ID field - select student ID field in that sheet.
5. Display other field - select other field to display with student ID such as student name.

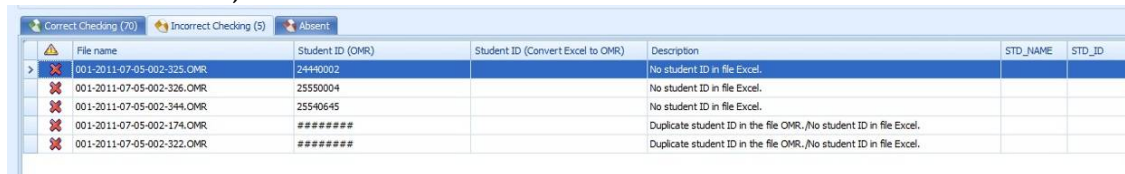


6. Click OK.
7. Select test profile.

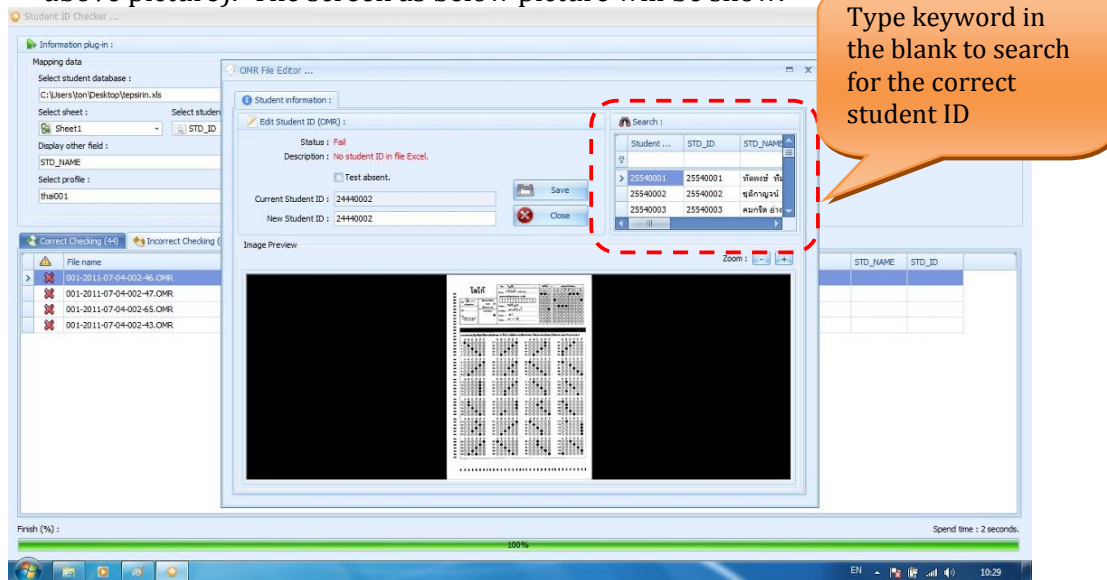
8. Click at  , after that the screen as picture below will be show.



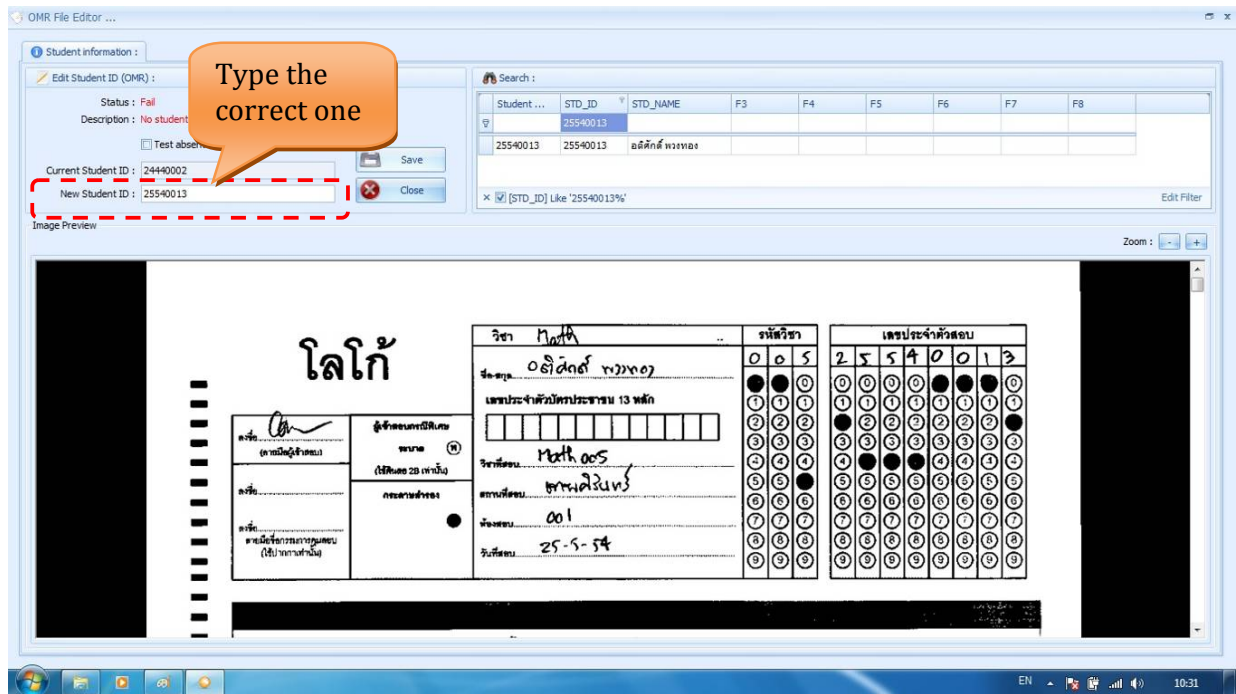
9. The student ID that are correct matching will be show in Correct checking tab. The student ID that are wrong matching will be show in Incorrect checking tab, these may caused by no student ID in database, incomplete student ID, duplicate student ID, etc.



10. For the incorrect student ID, you can edit them by double clicks at each row (as above picture). The screen as below picture will be show.



11. Type the correct student ID in "New student ID" and then click at Save.

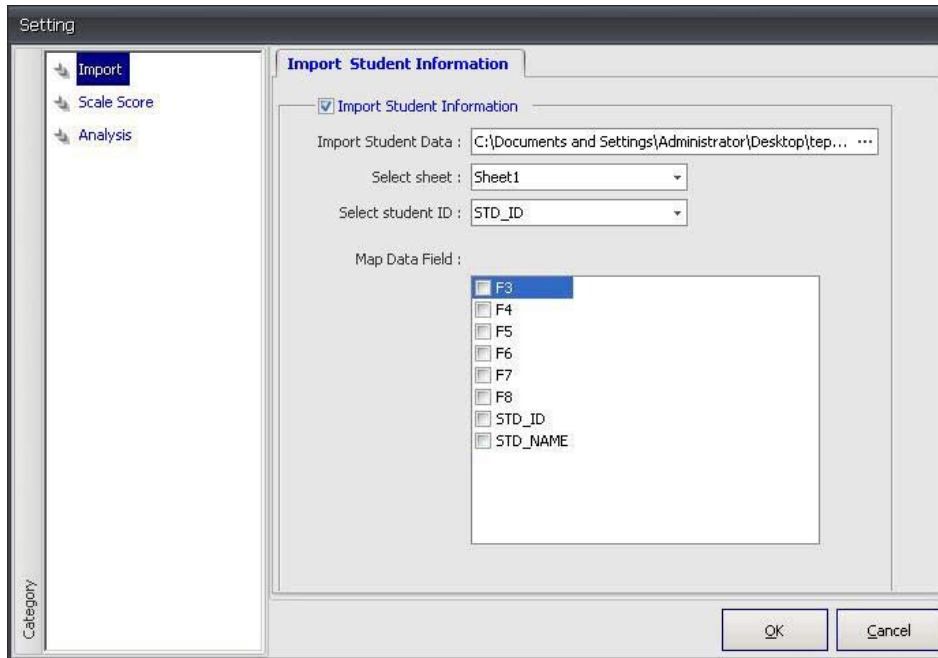


12. The edited student ID will be move to correct student ID tab.

7. Test Analysis setting



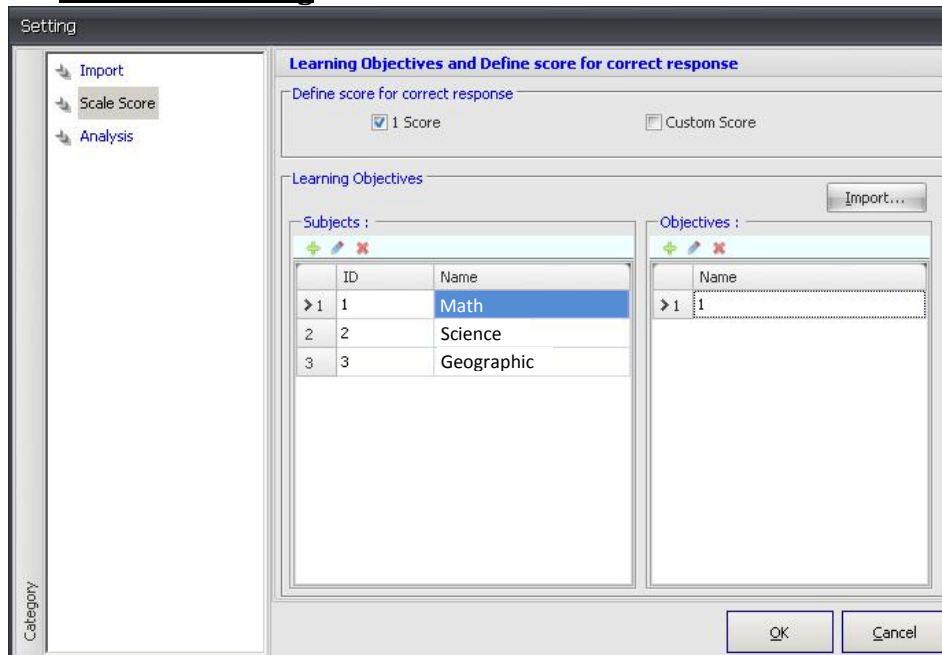
1. Double clicks at
2. From Test analytic & statistic screen. Go to Tool → Setting. The screen as below will be show.



Import setting- for import student information (Excel file).

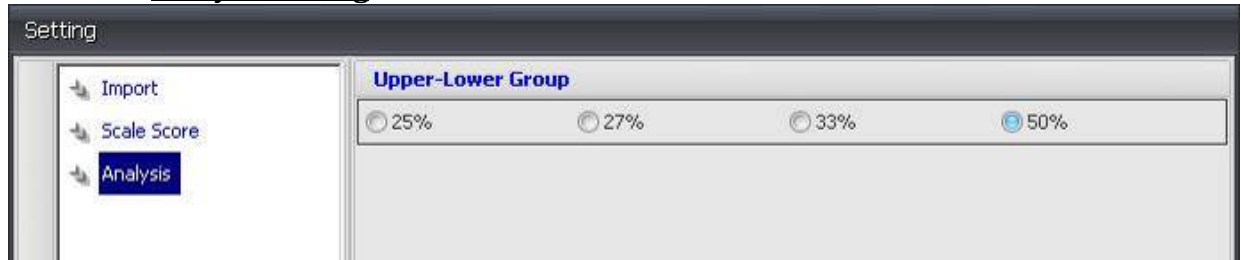
- Import student data – select student database’s path.
- Select sheet – select sheet which is student database.
- Select student ID – select student ID field.
- Map data field – display other information.

Scale score setting



- Define score for correct response.
 - 1 score - 1 correct response = 1 score.
 - Custom score - 1 correct response = custom score.
- Learning objective
 - Import – import learning objective list.
 - Subject – subject name.
 - Objective – 1 question supports 5 objectives. 1 subject supports unlimited objective.

Analysis setting

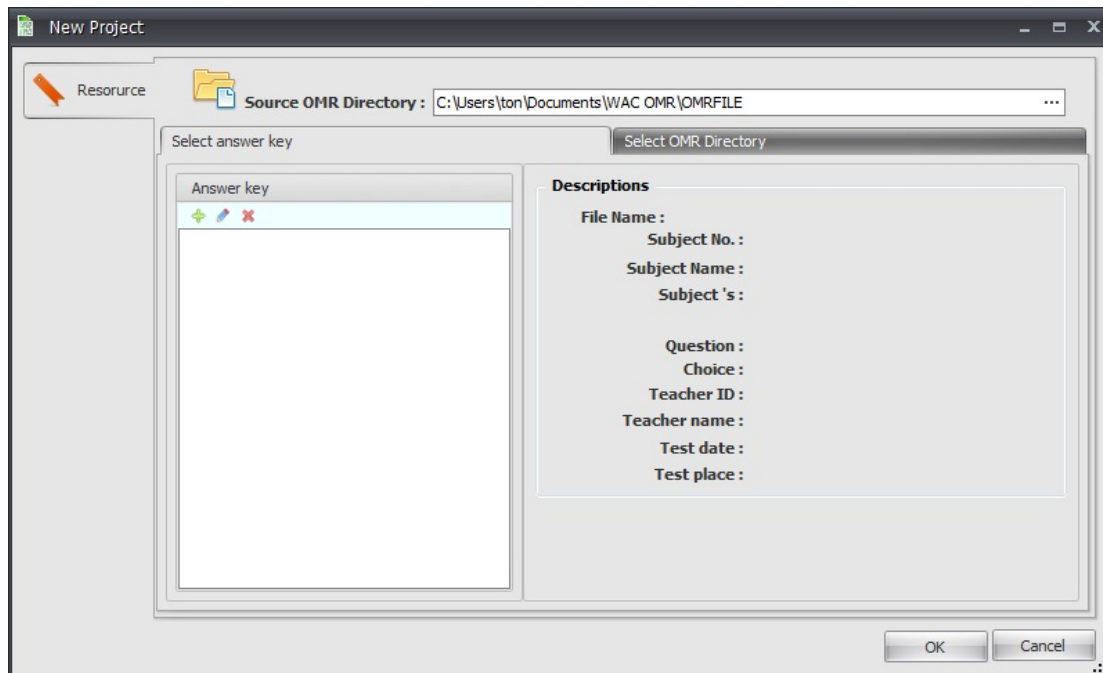


Set upper-lower group.

8. Answer Key

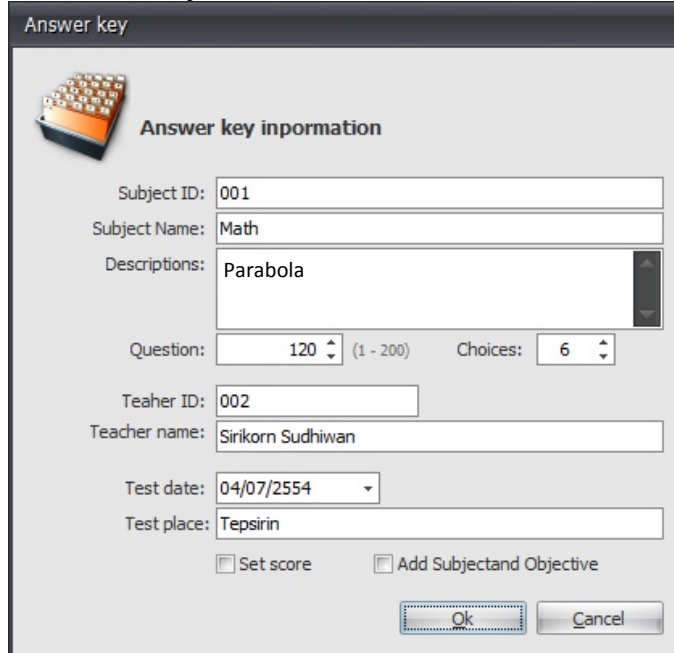


1. Double clicks at 
2. Test analytic & statistic screen. Go to File → New → Project. The screen as below picture. จะได้นี้หน้าจอตามภาพ



8.1. Create new answer key file

1. Click at Select answer key tab and then click at  to create new answer key file.



Answer key

Answer key information

Subject ID: 001

Subject Name: Math

Descriptions: Parabola

Question: 120 (1 - 200) Choices: 6

Teaher ID: 002

Teacher name: Sirikorn Sudhiwan

Test date: 04/07/2554

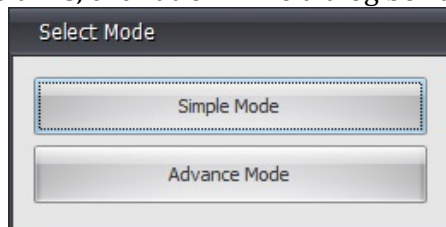
Test place: Tepsirin

Set score Add Subjectand Objective

Ok Cancel

Complete all blanks.

- Subject ID - must same as test profile.
 - Subject Name
 - Description - subject description.
 - Question - total questions in the test.
 - Choices - total choice in each question.
 - Teacher ID
 - Teacher Name
 - Test date
 - Test place
2. After complete all blanks, click at OK. The dialog box as below will be show.



Select Mode

Simple Mode

Advance Mode

Single mode is 1 correct response = 1 score

Advanced mode is 1 correct response = custom score

*In this manual use simple mode.

3. Click at correct answer in circle and select scoring type.

Answersheet Template Editor

:: Answer key Information

Subject ID : 001 **Teacher ID :** 002
Subject Name : Math **Teacher name :** Sirikom Sudhiwan
Question : 120 **Test date :** 04/07/2554
Choice : 6 **Test place :** Tepsirin
Subject Description : ภาคตัดกรวย

:: Please select the answer key

No	Choice	Scoring Type
001	<input type="radio"/> 1 <input type="radio"/> 2 <input checked="" type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6	Single Choice
002	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input checked="" type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6	Single Choice
003	<input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input checked="" type="radio"/> 5 <input type="radio"/> 6	FreeScored
004	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input checked="" type="radio"/> 5 <input type="radio"/> 6	Single Choice
005	<input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6	FreeScored
006	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input checked="" type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6	Single Choice
007	<input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6	Single Choice
008	<input type="radio"/> 1 <input type="radio"/> 2 <input checked="" type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6	Single Choice
009	<input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6	Single Choice
010	<input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6	Single Choice
011	<input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6	FreeScored
012	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input checked="" type="radio"/> 6	Single Choice
013	<input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6	Single Choice
014	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input checked="" type="radio"/> 5 <input type="radio"/> 6	Single Choice
015	<input type="radio"/> 1 <input type="radio"/> 2 <input checked="" type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6	Single Choice
016	<input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6	Single Choice
017	<input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6	Single Choice
018	<input checked="" type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 5 <input type="radio"/> 6	Single Choice

Ok Cancel

- Single choice – 1 correct answer only.
- Free Score – free score for all response.
- After finish, click at OK.

4. Name answer key file and then save (*.azt)

5. The answer key file description is as below picture.

New Project

Resource

Source OMR Directory : C:\Users\ton\Documents\WAC OMR\OMRFILE,C:\Users\ton\Documents\WAC OMR\OM...

Select answer key

Answer key

Math001.azt

Select OMR Directory


Descriptions

File Name : Math001.azt
Subject No. : 001
Subject Name : Math
Subject 's : ภาคตัดกรวย


Question : 120
Choice : 6
Teacher ID : 002
Teacher name : Sirikom Sudhiwan
Test date : 04/07/2554
Test place : Tepsirin

OK Cancel

8.2. Edit answer key

1. Click at Select answer key tab. Select answer key file which you want to edit.
2. Click at , the answer key screen will be show.
3. Edit answer key.
4. Click OK.

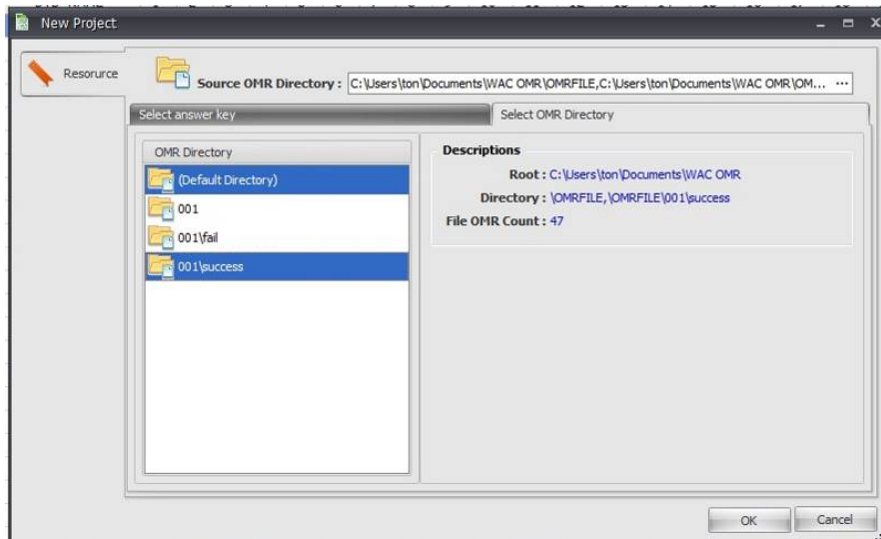
8.3. Delete answer key

1. Click at Select answer key tab. Select answer key file which you want to delete.
2. Click at  to delete.
3. Click OK.

9. Score, analyze and statistic

9.1. Score and analysis

1. Click at OMR directory tab.
2. Select OMR file at folder “subject ID\success” in the left pane. The screen as below will be show.



3. Click OK. After finish analyzed process. The screen as below picture will be show.

Student Response Tab – this report shows response of each student, total students that are correct/ incorrect response in each question.

Answer key

- The top row is answer key of each question.
- Green – correct response.
- Gray – incorrect response.
- Red – no response or duplicate response.

Student Statistics Tab – this shows score statistic of each student.

ID	STD_NAME	Total Questions	Correct	Incorrect	Free Score	Full Scale Score	Raw Score	Ranking	Quartile	Percentile	Z-Score	T-Score	Stanine
25540019	อัญญา วัฒนเจริญ	120	20	98	2	120	22	1	Q-1	100	3.18	81.8	11.36
25540081	จรรยา	120	11	107	2	120	13	17	Q3	64.44	0.26	52.6	5.52
25540052	วิมลศักดิ์ เมธาภิบาล	120	13	105	2	120	15	7	Q4	86.67	0.91	59.1	6.82
25540036	ณัฐกัญญา เทพรักษ์	120	7	105	2	120	9	38	Q1	17.78	-1.04	39.6	2.92
25540030	กัญญา อภิสิทธิ์	120	8	110	2	120	10	29	Q2	37.78	-0.71	42.9	3.58
25540022	ณัฐกัญญา	120	8	109	2	120	10	29	Q2	37.78	-0.71	42.9	3.58
25540041	โรชนา เทพสุธา	120	9	109	2	120	11	25	Q2	46.67	-0.39	46.1	4.22
25540012	หทัยพร วัฒนเจริญ	120	8	110	2	120	10	29	Q2	37.78	-0.71	42.9	3.58
25540011	ณัฐกัญญา อภิสิทธิ์	120	12	104	2	120	14	11	Q4	77.78	0.58	55.8	6.16
25540013	ณัฐกัญญา อภิสิทธิ์	120	9	108	2	120	11	25	Q2	46.67	-0.39	46.1	4.22
25540005	สุรพรณี บุญรอด	120	8	104	2	120	10	29	Q2	37.78	-0.71	42.9	3.58
25540020	ณัฐกัญญา อภิสิทธิ์	120	9	108	2	120	11	25	Q2	46.67	-0.39	46.1	4.22
25540021	กัญญา อภิสิทธิ์	120	7	110	2	120	9	38	Q1	17.78	-1.04	39.6	2.92
25540023	สุรพรณี บุญรอด	120	11	107	2	120	13	17	Q3	64.44	0.26	52.6	5.52
25540024	ณัฐกัญญา อภิสิทธิ์	120	10	108	2	120	12	20	Q3	57.78	-0.06	49.4	4.88
25540025	ณัฐกัญญา อภิสิทธิ์	120	14	104	2	120	16	5	Q4	91.11	1.23	62.3	7.46
25540026	สุรพรณี บุญรอด	120	15	98	2	120	17	2	Q4	97.78	1.56	65.6	8.12
25540027	กัญญา อภิสิทธิ์	120	7	110	2	120	9	38	Q1	17.78	-1.04	39.6	2.92
25540028	ณัฐกัญญา อภิสิทธิ์	120	8	110	2	120	10	29	Q2	37.78	-0.71	42.9	3.58
25540029	ณัฐกัญญา อภิสิทธิ์	120	8	110	2	120	10	29	Q2	37.78	-0.71	42.9	3.58
25540033	สุรพรณี บุญรอด	120	8	110	2	120	10	29	Q2	37.78	-0.71	42.9	3.58
25540034	กัญญา อภิสิทธิ์	120	12	106	2	120	14	11	Q4	77.78	0.58	55.8	6.16
25540037	ณัฐกัญญา อภิสิทธิ์	120	8	110	2	120	10	29	Q2	37.78	-0.71	42.9	3.58
25540038	ณัฐกัญญา อภิสิทธิ์	120	6	112	2	120	8	42	Q1	8.89	-1.36	36.4	2.28
25540039	สุรพรณี บุญรอด	120	6	112	2	120	8	42	Q1	8.89	-1.36	36.4	2.28
25540040	ณัฐกัญญา อภิสิทธิ์	120	6	111	2	120	8	42	Q1	8.89	-1.36	36.4	2.28

This provides score and statistic as follow;

- Total questions
- Correct – total correct response.
- Incorrect – total wrong response.
- Free score – total free score.
- Full scale score – total score.
- Raw score.

- Ranking.
- Quartile.
- Percentile.
- Z-Score.
- T-Score.
- Stannie.


If you want to preview student answer sheet image, double clicks at each student field.

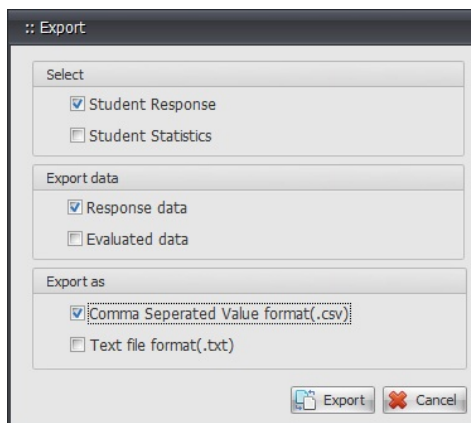
ID	STD_NAME	Total Questions	Correct	Incorrect	Free Score	Full Scale Score	Raw Score	Ranking	Quartile	Percentile	Z-Score	T-Score	Stannie
1	25540019 อัญญา อานะใจ	120	20	98	2	120	22	1	Q1	100	3.18	81.8	11.36
2	25540081 อรุณ	120	11	107	2	120	13	17	Q3	64.44	0.26	52.6	5.52
3	25540052 อิศริณี เวชานนธิ์	120	13	105	2	120	15	7	Q4	86.67	0.91	59.1	6.82
4	25540036 อัญฉวี เทเวศน์	120	7	105	2	120	9	38	Q1	17.78	-1.04	39.6	2.92

The second image shows a preview of a student answer sheet with a grid of questions and multiple-choice options (A, B, C, D, E, F). The 'Stannie' column in the table above is highlighted with an orange arrow.

9.1.1. Export

The student response and evaluated data can be export to .CSV and .TXT file format in order to use with SPSS program.

1. From Test analytic & statistic screen, go to  Export, the dialog box as below will show.



2. Select data tab; Student response or Student Statistics
3. Select export data; response data or evaluated data.
 - 3.1. Response data – the student response in each question.
 - 3.2. Evaluate data – the data shows that correct response = 1, incorrect response =0
4. Select export file type; csv file or text file

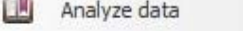
	A	B	C	D	E	F	G	H	I	J	K	L
1	ID	STD_NAME	1	2	3	4	5	6	7	8	9	10
2		Answer Key	3	4	0	5	1	4	1	3	1	
3	25540019	Thanyanuch Kongchareon	1	2	0	4	4	6	5	4	3	
4	25540081	Jatuporn Prompong	3	2	0	4	5	6	5	6	3	
5	25540052	Jirasak Sajjai	1	2	0	4	6	6	5	4	3	
6	25540036	Nattasit Testai	2	2	0	4	5	6	5	4	3	
7	25540030	Kantipa Yuyod	1	2	0	4	5	6	5	4	3	
8	25540022	Kitisak Pakdee	2	2	0	4	5	5	5	4	3	
9	25540041	Tripob Pensuk	1	1	0	4	5	6	5	4	3	
10	25540012	Tossaporn Muangfa	1	2	0	4	5	6	5	4	3	
11	25540011	Sinapa Homjan	2	3	0	5	2	1	2	4	5	
12	25540013	Adisak Puangthong	1	2	0	4	5	6	5	4	3	

Export student response data

	A	B	C	D	E	F	G	H	I	J	K	L
1	ID	STD_NAME	Total Questions	Correct	Incorrect	Free Score	Full Scale Score	Raw Score	Ranking	Quartile	Percentile	Z-Score
2	25540019	Thanyanuch Kongchareon	120	20	98	2	120	22	1	Q4	100	
3	25540081	Jatuporn Prompong	120	11	107	2	120	13	17	Q3	64.44	
4	25540052	Jirasak Sajjai	120	13	105	2	120	15	7	Q4	86.67	
5	25540036	Nattasit Testai	120	7	105	2	120	9	38	Q1	17.78	
6	25540030	Kantipa Yuyod	120	8	110	2	120	10	29	Q2	37.78	
7	25540022	Kitisak Pakdee	120	8	109	2	120	10	29	Q2	37.78	
8	25540041	Tripob Pensuk	120	9	109	2	120	11	25	Q2	46.67	
9	25540012	Tossaporn Muangfa	120	8	110	2	120	10	29	Q2	37.78	
10	25540011	Sinapa Homjan	120	12	104	2	120	14	11	Q4	77.78	
11	25540013	Adisak Puangthong	120	9	108	2	120	11	25	Q2	46.67	
12	25540005	Suwannee Boonrod	120	8	104	2	120	10	29	Q2	37.78	
13	25540020	Oomsin Nookao	120	9	108	2	120	11	25	Q2	46.67	
14	25540021	Patara Kamhang	120	7	110	2	120	9	38	Q1	17.78	

Export evaluated data

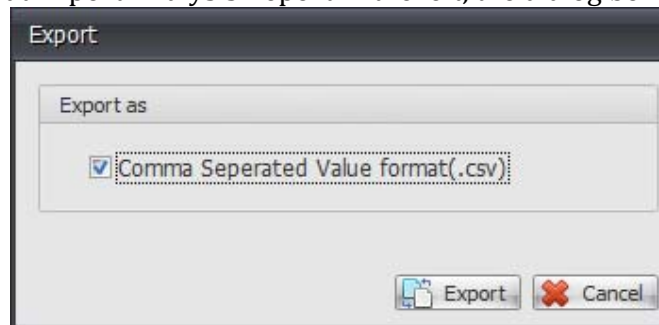
9.2. Test Analysis

From Test Analysis & Statistic screen, click at  in the left, then click at Test Analysis Report, the dialog box as below will be show.

No	#	Choice	GroupHigh	GroupMiddle	GroupLow	PHigh	PLow	P	Delta	r	Rbis	Rpb
1	*	1	36	0	29	1.96	0.81	0.96	22.73	0.19	0.36	0.31
		2	0	0	5	0.00	0.14	0.07	11.73	-0.14		
		3	0	0	1	0.00	0.03	0.01	10.94	-0.03		
		4	0	0	1	0.00	0.03	0.01	10.94	-0.03		
		5	0	0	0	0.00	0.00	0.00	10.81	0.00		
		6	0	0	0	0.00	0.00	0.00	10.81	0.00		
		Error	0	0	0							
2	*	1	0	0	1	0.00	0.03	0.01	10.94	-0.03		
		2	35	0	32	0.97	0.89	0.93	23.12	0.08	0.14	0.13
		3	1	0	2	0.03	0.06	0.04	11.34	-0.03		
		4	0	0	1	0.00	0.03	0.01	10.94	-0.03		
		5	0	0	0	0.00	0.00	0.00	10.81	0.00		
		6	0	0	0	0.00	0.00	0.00	10.81	0.00		
		Error	0	0	0							
3	*	1	0	0	2	0.00	0.06	0.03	11.20	-0.06		
		2	1	0	2	0.03	0.06	0.04	11.34	-0.03		
		3	35	0	28	0.97	0.78	0.88	22.46	0.19	0.24	0.19
		4	0	0	3	0.00	0.08	0.04	11.34	-0.08		
		5	0	0	0	0.00	0.00	0.00	10.81	0.00		
		6	0	0	1	0.00	0.03	0.01	10.94	-0.03		
		Error	0	0	0							
4	*	1	0	0	0	0.00	0.00	0.00	10.81	0.00		
		2	1	0	2	0.03	0.06	0.04	11.34	-0.03		
		3	4	0	0	0.11	0.00	0.06	11.60	0.11	0.16	0.28
		4	30	0	32	0.83	0.89	0.86	22.20	-0.06		
		5	1	0	1	0.03	0.03	0.03	11.20	0.00		
		6	0	0	0	0.00	0.00	0.00	10.81	0.00		
		Error	0	0	1							

9.2.1. Export

1. Click at Export Analysis Report in the left, the dialog box as below will be show.



2. Mark before "Comma Separated value format (.CSV) and then click at Export.

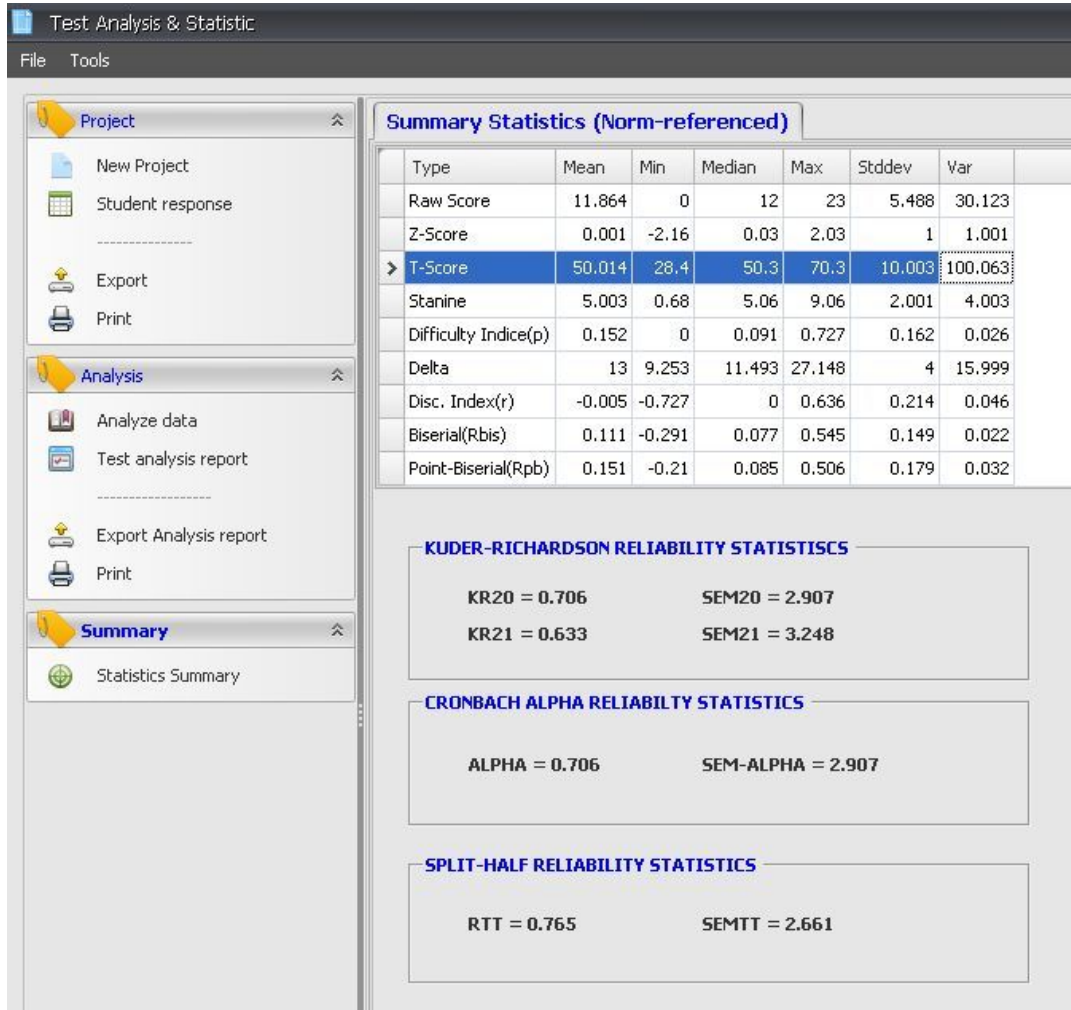
No	#	Choice	GHigh	GMid	GLow	PHigh	PLow	P	Delta	r	Rbis	Rpb
1	*	1	36	0	29	1	0.81	0.9	22.73	0.19	0.36	0.31
		2	0	0	5	0	0.14	0.07	11.73	-0.14		
		3	0	0	1	0	0.03	0.01	10.94	-0.03		
		4	0	0	1	0	0.03	0.01	10.94	-0.03		
		5	0	0	0	0	0	0	10.81	0		
		6	0	0	0	0	0	0	10.81	0		
		Error	0	0	0							
2	*	1	0	0	1	0	0.03	0.01	10.94	-0.03		
		2	35	0	32	0.97	0.89	0.93	23.12	0.08	0.14	0.13
		3	1	0	2	0.03	0.06	0.04	11.34	-0.03		
		4	0	0	1	0	0.03	0.01	10.94	-0.03		
		5	0	0	0	0	0	0	10.81	0		
		6	0	0	0	0	0	0	10.81	0		
		Error	0	0	0							

9.3. Statistics summary

1. Click at Statistic Summary.



2. The screen as below will be show.

A screenshot of the "Test Analysis & Statistic" software interface. The window title is "Test Analysis & Statistic". The menu bar includes "File" and "Tools". On the left, there are three main sections: "Project" with options like "New Project", "Student response", "Export", and "Print"; "Analysis" with options like "Analyze data", "Test analysis report", "Export Analysis report", and "Print"; and "Summary" with the option "Statistics Summary". The main area displays "Summary Statistics (Norm-referenced)" in a table format. Below the table, there are three sections for reliability statistics: "KUDER-RICHARDSON RELIABILITY STATISTICS", "CRONBACH ALPHA RELIABILITY STATISTICS", and "SPLIT-HALF RELIABILITY STATISTICS".

Type	Mean	Min	Median	Max	Stddev	Var
Raw Score	11.864	0	12	23	5.488	30.123
Z-Score	0.001	-2.16	0.03	2.03	1	1.001
T-Score	50.014	28.4	50.3	70.3	10.003	100.063
Stanine	5.003	0.68	5.06	9.06	2.001	4.003
Difficulty Index(p)	0.152	0	0.091	0.727	0.162	0.026
Delta	13	9.253	11.493	27.148	4	15.999
Disc. Index(r)	-0.005	-0.727	0	0.636	0.214	0.046
Biserial(Rbis)	0.111	-0.291	0.077	0.545	0.149	0.022
Point-Biserial(Rpb)	0.151	-0.21	0.085	0.506	0.179	0.032

KUDER-RICHARDSON RELIABILITY STATISTICS

KR20 = 0.706 SEM20 = 2.907
KR21 = 0.633 SEM21 = 3.248

CRONBACH ALPHA RELIABILITY STATISTICS

ALPHA = 0.706 SEM-ALPHA = 2.907

SPLIT-HALF RELIABILITY STATISTICS

RTT = 0.765 SEMTT = 2.661

10. Appendix

10.1. Discrimination Index : r

The discrimination index is a basic measure of the validity of an item. It is a measure of an item's ability to discriminate between those who scored high on the total test and those who scored low. Though there are several steps in its calculation, once computed, this index can be interpreted as an indication of the extent to which overall knowledge of the content area or mastery of the skills is related to the response on an item. Perhaps the most crucial validity standard for a test item is that whether a student got an item correct or not is due to their level of knowledge or ability and not due to something else such as chance or test bias.

Discrimination (R)	Meaning
1	Best
0.8-0.99	Very Good
0.6-0.79	Good
0.4-0.59	Moderate
0.2-0.39	Low
>0.19	No

10.2. Difficulty Index : P

Teachers produce a difficulty index for a test item by calculating the proportion of students in class who got an item correct. (The name of this index is counter-intuitive, as one actually gets a measure of how easy the item is, not the difficulty of the item.) The larger the proportion, the more students who have learned the content measured by the item.

Difficult (p)	Meaning
0.8-1	Very easy
0.6-1.8	easy
0.5-1.6	Nearly Easy
0.5	Moderate
0.4-0.49	Nearly difficult
0.2-0.39	Difficult
0-0.19	Too difficult

11. Contact Us

WAC RESEARCH CO.,LTD.

9 Soi Ladpraowanghin 33, Ladpraowanghin Rd., Ladprao, Ladprao, Bangkok, 10230, Thailand

Tel : 66 2 5303809, 66 2 5381038, 66 2 5399352

Fax : 66 2 538 3098

E-mail : sales@wacinfotech.com

Website : www.wacinfotech.com