

PERSONAL TAX COMPUTATION BY MICROCOMPUTER

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ABSTRACT

The overview objective of this paper is to present a micro-computer-based tools in helping public in their own tax computation. This in time will help the hectic assessment work in the Inland Revenue and for collection purposes. Written in Turbo Pascal Version 6.0 and implemented on an IBM PC.

COMPUTERS FOR PESONAL TAX COMPUTATION

Due to the volumous work the Inland Revenue Department may try to solve the hectic work by making mandatory salary-earned taxpayers to submit tax computation together with their annual return form. Presently no tax computation is required to be sent to the department by salary earned taxpayers. If tax computation are submitted the total tax payable should have already been determined through the computation submitted later on. Presently the taxpayers have to wait for their tax notices after the department assessed them.

Due to the cheap and easy avaiilability of PC and the nation achieving 100% literacy rate (Vision 2020) the department can assist the public to prepare their own personal tax computation through the computer. This paper presents a tool in helping public in their own tax computation. This tool serves as a stepping stone if the department ever wish to take up the above suggestion. The income included in the computation's tool will only be from employment and dividnet since these sources of income constitute the majority of salary-earned taxpayers.

THE PROPOSED TAX COMPUTATION TOOL

The system is to assist salary-earned taxpayers with only employment and dividend income to :

- (1) Compute their own personal tax computation.
- (2) Provide personal tax information as a help for computation.

Computation Of Tax

The system should display a standard tax computation where the user could input their income, relief and items to be derived at the total tax payable by them. The standard Tax Format is to be patterned similar to that of the Notices of Assessment sent out by the Department to taxpayers with only the relevant items. The input items include:

1. Adjusted Employment Income 1
2. Adjusted Employment Income 2
3. Divident Income
4. Self Relief
5. Wife Relief
6. Child Relief
7. Insurance & EPF contributions
8. Zakat & Fitrah
9. Divident Tax Deductible
10. Donations

The Tax Computation should show the following :

1. Total Adjusted Income
2. Total Income
3. Chargeable Income
4. Income Tax on Chargeable Income
5. Total Tax
6. Total tax Payable

The items before computing Income Tax on chargeable Income should be integer values while the items after that are real values. The computation should cover all types of assessment that are SEPARATE, SELF, COMBINE. All items in computations must be restricted to the charging and computing sections in the income tax Act 1967.

Providing Tax Information

This section explains to the user the various items in simple English. The explanation is intended as a guide. The information covers :

1. Adjusted Employment Income
2. Adjusted Divident Income
3. Divident
4. Donations
5. Self Relief
6. Wife Relief
7. Child Relief
8. Insurance & EPF relief

SOFTWARE DESIGN

The entire program is broken up into three separate main modules, (as shown in Figure 1), each performing different but interdependent functions. These three modules are :

1. Menu Module
2. Tax Enquiries Module
3. Tax Computation Module

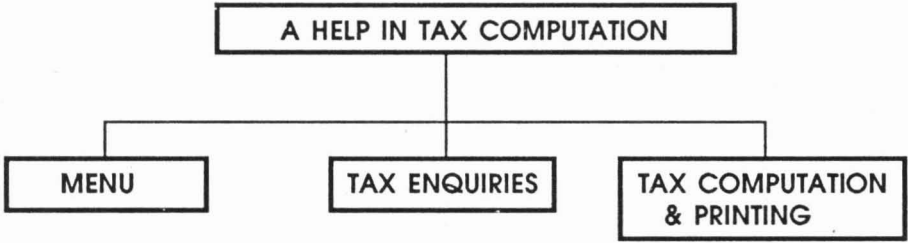


Figure 1 : Structure Of The Program

Menu Module

This module displays a recurring menu on the screen giving the user a choice among the other two modules of the program. The purpose of this module is to provide a menu driven access to the other module. Figure 2 illustrates this module.

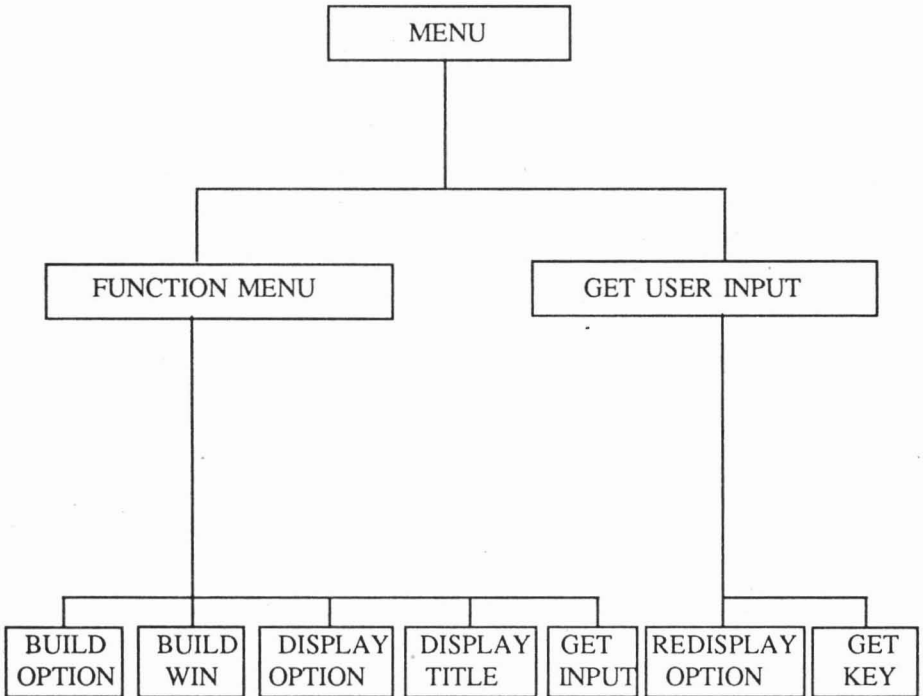


Figure 2 : Structure Of The Main Module

Tax Enquiries Module

The Tax Enquiries Module will allow the user to get information about the various input items of the tax computation module if the user encounter problems. This basically serves as a help to manipulate with the tax computation module. The structure of this module is shown in Figure 3.

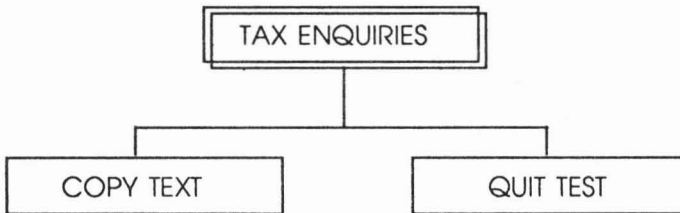


Figure 3 : Structure Of The Tax Enquiries Module

Tax Computation Module

The Tax Computation Module is subdivided into various sub-modules. Figure 4 illustrates this module.

Title

This sub-module sets up the title of the tax computation module in getting the relevant year of tax computation and the relevant type of Assessment to be raised.

Build Window

This module basically displays two windows of equal size. The left window is for income purposes until the computation of chargeable income. While the right window is the computation of taxes after the chargeable income. The end result should be the Total Tax Payable.

Set Fill Window

This module set up the left and right window with their respective items and amount in the prescribe format similar to the notice of accessment. This is done by filling the items using the procedure creatWind followed by filling the income or relief, rebate and total using the two procedure enterAmtleftWind and enterAmtRightWind.

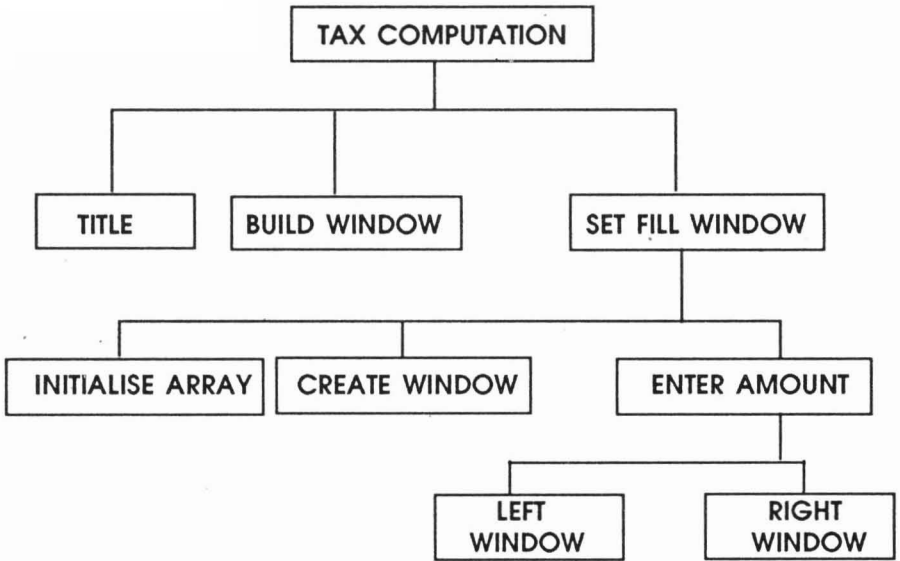


Figure 4 : Structure Of The Tax Computation Module

SAMPLE OUTPUT

Below are some samples output of the software.

Samples Of Enquiries

FILE AVAILABLE

EmploymentIncome.pas
 Divident.pas
 Donation.pas
 SelfRelief.pas
 WifeRelief.pas
 ChildRelief.pas
 InsuranEpf.pas

Enter a filename? childrelief.pas

You can claim relief if your child is

1. Maintained wholly or partly by you
2. unmarried
3. under 18 years of age

If over 18 years of age, the child must be receiving full-time education at University, college or school. Relief is given for first to fifth entitled child. Each relief is \$800 respectively. If you are married and living together child relief claimed deemed to be only the husband.

Any more Enquiries? (Y or N)

SAMPLES OF COMPUTATION

Combine Assessment

what tax year?

enter year with four digits?

1991

What is your marital status?

<enter> either s for SINGLE, w for WIDOW or m for MARRIED

m

What is your choice of assessment?

<enter> S if you wish to separately assessed

with your spouse or else C for COMBINED assessment

c

TAX COMPUTATION 1991 Type of Assessment COMBINE

Adjusted Income		INCOME TAX ON	
Employment1	9007	CHARGEABLE INC	329.70
Employment2	7790		
Divident	0	SelfRebate	60.00
TOTAL ADJ INC	16797	WifeRebate	30.00
Less:Donation	0	Zakat Fitrah	0.00
TOTAL INCOME	16797	TOTAL TAX	239.70
Less:Self Relief	5000	Less:Divident Tax	0.00
Wife Relief	3000		
Child Relief	800	TOT TAX PAYABLE/REPAYA	239.70
InsuranEPF	2450	TO PRINT ? — Press PrintScreen	
CHARGEABLE INC	5547	Press space bar to return to Menu	

Separate Assessment

what tax year?

<enter> year with four digits>

1991

What is your marital status?

<enter> either s for SINGLE, w for WIDOW or m for MARRIED

m

What is your choice of assessment?

<enter> S if you wish to separately assessed

with your spouse or else C for COMBINED assessments

TAX COMPUTATION 1991 Type of Assessment SEPARATE

Adjusted Income		INCOME TAX ON	
Employment1	56400	CHARGEABLE INC	7918.69
Employment2	0		
Divident	0	SelfRebate	0.00
TOTAL ADJ INC	56400	WifeRebate	0.00
Less: Donation	0	Zakat Fitrah	0.00
TOTAL INCOME	56400	TOTAL TAX	7918.69
Less:Self Relief	6000	Less:Divident Tax	0.00
Wife Relief	0	TOT TAX PAYABLE/REPAYA	7918.69
Child Relief	0		
InsuranEPF	53	TO PRINT ?— Press PrintScreen	
CHARGEABLE INC	50347	Press space bar to return to Menu	

Self Assessment

What tax year?

enter year with four digits?

1991

What is your marital status ?

<enter> either s for SINGLE, w for WIDOW or m for MARRIED

s

TAX COMPUTATION 1991

Type of Assessment SELF

Adjusted Income		INCOME TAX ON	
Employment1	8099	CHARGEABLE INC	0.00
Employment2	0		
Divident	0	SelfRebate	60.00
TOTAL ADJ INC	8099	WifeRebate	0.00
		Zakat Fitrah	0.00
Less:Donation	0	TOTAL TAX	0.00
TOTAL INCOME	8099		
		Less:Divident Tax	0.00
Less:Self Relief	5000	TOT TAX PAYABLE/REPAYA	0.00
Wife Relief	0		
Child Relief	0	TO PRINT ?— Press Printscreen	
InsuranEPF	3500	Press space bar to return to Menu	
CHARGEABLE INC	0		

EVALUATION AND CONCLUSION

This remarks on the development of the program and also the efficiency, limitation, and future enhancements.

Evaluation

During the development of the software, emphasis was placed on making the software flexible, user friendly, and easy to use. Thus as a whole, this tool has been able to function as anticipated.

The software is very interactive, with prompts and error messages, making data entry easy even for a computer novice. On top of that, the robustness of the program in reacting to invalid commands also makes it easy to use.

Future Enhancements

This program can be used for more groups of income like rental, interest and so on. Beside including more groups of income the program can be expanded to help corporate tax computation.

Tax enquiries section could be expanded by providing a wider range of information. This could in fact serve as a guide and a way to educate tax payers about taxation. Information like location of tax office, telephone number of tax office, rate of tax and so on can also be included. Enquiry section could be formatted to provide clear information.

Besides the two options, namely enquiry and computation, other options could be included like payment of taxes, tax balances, penalty and offences, and right of appeal.

The program can be used wisely not only in the department but in the post offices, banks, and other places.

REFERENCES

Swan, T., (19910) Mastering Turbo Pascal 6, Hayden Books, New York.

Hergert, D., (1991) Turbo Pascal 6 Programming For The PC, SAMS Books, New York.

Subramaniam, A., (1990) Master Tax Guide, CCH Publication.

Department Of Inland Revenue, Tax Guide For Individuals.
Income Tax Act 1967.